

PATEK PHILIPPE

THE INTERNATIONAL MAGAZINE

VOLUME IV NUMBER 9





PATEK PHILIPPE
GENEVE

BEGIN YOUR OWN TRADITION



YOU NEVER ACTUALLY OWN A PATEK PHILIPPE.
YOU MERELY LOOK AFTER IT FOR THE NEXT GENERATION.

Contour



ANNUAL CALENDAR CHRONOGRAPH REF. 5905R

PATEK.COM

Contents



5 Artists' jewelry

When sculptors and painters turn their hands to jewelry, it takes on a new dimension. Rachel Garrahan meets the collector Louisa Guinness

8 Anatomy of a classic

Nicholas Foulkes remembers the impact of the first "useful" complication, the Annual Calendar, an everyday horological hero

10 A brief history of chimes

A family business that dates back to the Middle Ages is music to the ears of Antonella Bersani

16 Patek Philippe: the Singapore story

A tale of two cities. Nicholas Foulkes reports from the *Watch Art* exhibition bringing Geneva to Southeast Asia

26 Living treasure

Jorge E. Benavides discovers an Incan tradition of cultivation that is thriving high in the Peruvian Andes

34 Ten years and counting

What a difference a decade makes. Pierre Maillard finds much to celebrate in the many iterations of an in-house chronograph caliber

40 New world view

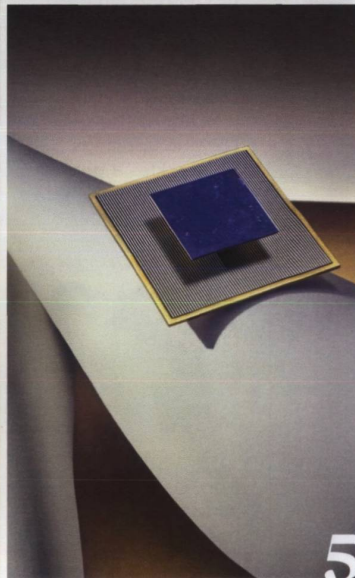
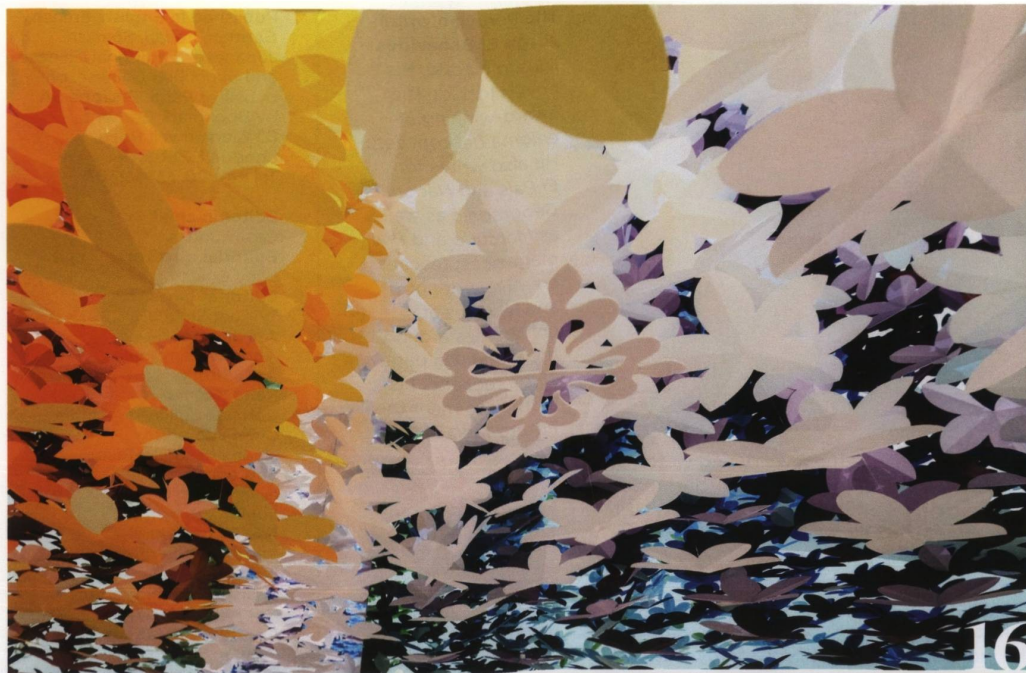
How did two distinct inventions open the eyes of an eighteenth-century audience? David Rooney investigates

44 Timekeeping treasures

An experimental dial, made circa 1790, is more than a curiosity, says Philippe Stern. It is a symbol of innovation and the exchange of ideas

46 Hand making

Turning a tiny sliver of metal into a watch hand is a very particular kind of alchemy. Nicholas Foulkes visits the Fiedler workshops



52 Your carriage awaits

Tim Willis finds that a stud farm in the English countryside is keeping traditional coach-making crafts on the road

60 Win, lose, or draw?

A bafflingly complicated lottery incentivized clients at a Patek Philippe retailer in Brazil. Robin Swithinbank digs through the archives to find out more

64 Heart of glass

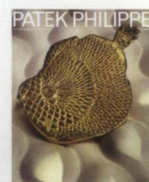
It was Maurice Marinot's willingness to experiment with his chosen molten material that led him to redefine glass art, says the curator Jean-Luc Olivié

69 Auctions

An exceptional timepiece made a stir at the Only Watch charity auction, setting a new world record. Simon de Burton reports from the season's sales

72 Collector's guide

There is no danger of overstating the iconic stature of the Jumbo Ellipse, says John Reardon. The bold and beautiful Ref. 3605 is the classic model



Volume IV No.9 2020

Cover: *Poisson*, an oversized gold pendant almost six-and-a-half inches across, was made in 1961 as part of a series

of collaborations between the surrealist artist Max Ernst and the jewelry maker François Hugo. The scales of the fish are hammered in decorative repoussé, a technique Hugo perfected in his work with Picasso. One of six, this example was photographed by Joel Stans

Contributors



The photojournalist **Anastasia Taylor-Lind** has exhibited widely, from Santa Fe to London, New York to Toronto. Her work on modern conflict has featured in the *New York Times* and *National Geographic*, and her first book, published in 2014, was about the Ukraine uprisings. She tackles a gentler subject on page 52.



Rachel Garrahan is the jewelry and watch director for *British Vogue*, introducing readers to emerging talent. Winner of the 2020 GEM Award for Media Excellence from Jewelers of America, she also writes for *Vanity Fair*, the *International New York Times*, *FT*, *Tatler*, and *Wallpaper**, among others. On page 5 she talks to the collector Louisa Guinness about the niche world of jewelry made by artists.

The Peruvian writer **Jorge E. Benavides** lives in Madrid. His novels include the award-winning *El enigma del convento*. He also writes for *El País* and *National Geographic* as well as *Mercurio* and *Eñe* magazines; teaches creative writing; and lectures at universities around the world. On page 26 he recounts his journey to meet the Potato King of Peru.



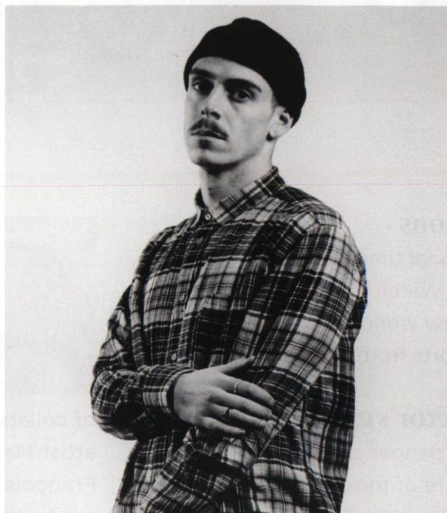
Published in English, French, German, Italian, Spanish, Japanese, Traditional Chinese, and Simplified Chinese, on behalf of Patek Philippe SA by Bookmark Content, 83 Clerkenwell Road, London EC1R 5AR Tel +44 20 7734 2303

Editor in chief
Casey Jones
Editorial director
Lucy Coles
Editor at large
William Sieghart
Art director
Andrew Campbell
Art editors
Kaho Kojima
Caroline Sallis
Chief sub editor
Naomi Misquita-Rice
Sub editor
Glyn Brown
Junior sub editor
Fay Gristwood
Photography director
Emmanuelle Peri
Assistant picture editor
Georgia Watson
Creative consultant
William Scott
Special horological correspondent
Nicholas Foulkes
Contributing editors
Simon de Burton,
Emily Stefania Coscione,
Marisa Julián, Charles
Penwarden, Venus Wong,
Kazuyo Yasuda
Production director
Sara Laney
Senior production manager
Alex Courtley
Board director
Kristen Fleener
Account managers
Jacqueline Hoey
Stephen Miller
Business consultant
Neil Mendoza
Editor for Patek Philippe
Jasmina Steele
Circulation manager
Glenn Pougnet
Database director
Roy Barker
Database manager
Manling Chau
Printed by
Pureprint Group
Reproduction by
Zebra



The Anglo-Bolivian photographer **Nick Ballon** has worked for publications such as the *New York Times*, *Der Spiegel*, *GQ*, and *Vogue*, but his personal work has focused on his heritage, exploring socio-historical ideas of identity and place. Of his trip to Peru (page 26), he says, "Heading out into the fields to tend to the Andean potatoes on the terraced slopes in much the same way as has happened in the region for the last seven millennia feels quite special."

For 30 years **Antonella Bersani** has been writing about economics, current affairs, and theater for Italian periodicals such as *Panorama*, *Capital*, and *Forbes Italia*. For decades she has been explaining the natural charm of Molise to Italian friends. She visited the region for *Patek Philippe* magazine, to report on the Marinelli family's bell foundry (page 10).



Berlin-based **Benoît Jeannet** from Neuchâtel, Switzerland, studied at the Lausanne art school and has exhibited in both group and solo shows. In 2017 he published the book *A Geological Index of the Landscape*. On page 46, the award-winning photographer shows the inner workings of the Fiedler hand-making workshops in Geneva in a bold new light.



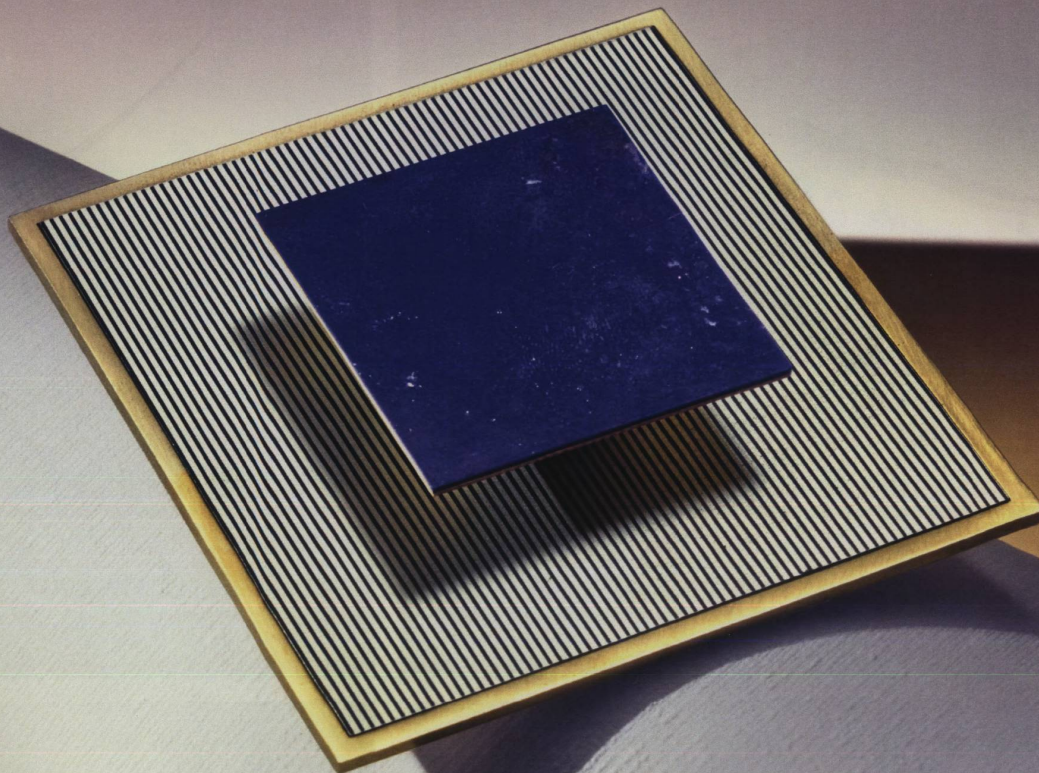
London-based **Tim Willis** regularly contributes to *The Times* and *Tatler*. He is a previous editor of *Patek Philippe* magazine and has held executive roles at the *Sunday Times*, *Sunday Telegraph*, and the *Independent*. He has published three books, including *Madcap*, a biography of Pink Floyd's cofounder Syd Barrett. On page 52, Willis explores the handcrafts behind carriage restoration.



PATEK PHILIPPE
GENEVE

Mailing address
P.O. Box 2654, CH-1211
Geneva 2, Switzerland
Tel +41 22/884 20 20
Fax +41 22/884 25 47

VIEW EXPRESSED IN THIS MAGAZINE ARE NOT NECESSARILY THOSE OF PATEK PHILIPPE SA OR BOOKMARK CONTENT. MATERIAL MAY NOT BE REPRODUCED IN ANY FORM WITHOUT THE PERMISSION OF BOOKMARK CONTENT. PHOTOGRAPH: ISABELLA DE MADDALENA



STORY *Rachel Garrahan*
PHOTOGRAPHS *Joel Stans*

The American sculptor Alexander Calder gave hostess gifts like no one else. When staying with friends, he would often sneak down to the kitchen in the early morning before presenting his hosts with a dramatic handwrought silver necklace fashioned from the contents of their cutlery drawer. Never without a piece of wire and a pair of pliers in his pocket, Calder had made jewelry since he was a small child, starting when he created pieces for his sister's dolls...



For the most part, Calder's work wasn't fashioned from precious metals and gemstones but from brass, silver, and discarded objects such as broken plates and bottles. Its value existed not in the materials but in the unique mark of the creator's hand in every hammered, manipulated curve. He was obsessed with tinkering with pieces of metal that come alive when worn on the body, just as his mobiles come alive when suspended from the ceiling. For this reason, he is "the king of artist jewelry," says the expert and dealer Louisa Guinness.

Fittingly, it was a Calder necklace that set London-based Guinness on her journey into the world of artist jewelry. Having begun her career in finance, she turned to the contemporary art world after meeting her art dealer husband, Ben Brown, and it was his mother's striking necklace that led Guinness to mount an exhibition in 2003 that included pieces by Calder, Niki de Saint Phalle, and Picasso. Since then, she has helped establish artist jewelry as a field in its own right, collecting pieces by twentieth-century masters and commissioning contemporary artists.

Artist jewelry had been little known and under-appreciated. Pieces are rare and often created as gifts for loved ones. Picasso, for instance, made an engraved stone amulet for his lover Dora Maar, while Giacometti created special buttons for the couture designs of his friend Elsa Schiaparelli. This is not jewelry made on a mass scale but, for the most part, a side project that offers an alternative, miniaturized mode of creative expression that doesn't require a coterie of assistants or even the foundry that might be required for a large-scale work. It is a tradition with a long history, however.

During the Renaissance, when classicism was reborn and all artistic expression was combined in a single, orderly, rational approach, great artists such as Botticelli and Brunelleschi served apprenticeships in goldsmiths' workshops. The intricate pieces they created were treasured for their artistic value rather than the value of the materials used in a break from traditional jewelry's preoccupation with showcasing precious gems and its role in signifying wealth and status. Similarly, in the twentieth century, the artist and goldsmith René Lalique pioneered art nouveau jewelry, opting for semi-precious stones, enamel, and glass over diamonds for his whimsical, lyrical designs.

While Calder created every piece of his jewelry with his own hands, many artists require professional assistance. Jewelry works took on new life with the modernist artists who had first emerged in the 1920s and '30s, thanks in large part to François Hugo, a trained goldsmith and the great-grandson of the French writer Victor Hugo.

It was in the south of France in the 1950s that Hugo persuaded his artist friends



Page 5: the design of Jesús Rafael Soto's 1968 *Square Brooch/Necklace*, in aluminum with silk-screen printed black-and-white stripes and a lapis lazuli central square, gives the impression of motion, an effect heightened as the wearer moves. Above: in 1949 Salvador Dalí designed an iconic *Ruby Lips* brooch. Opposite, clockwise from top left:

a 1973 pendant, *Le grand faune*, by Pablo Picasso and the goldsmith François Hugo; Man Ray's 1970 gold *Les amoureux* necklace, based on Lee Miller's lips, has a removable pendant that can be worn as a brooch; Pol Bury's 1974 *Tiges sur un carré* ring with sashaying rods mounted on a flat gold base; a c. 1940 swirling hammered brass brooch by Alexander Calder

to start creating miniaturized, wearable versions of their artworks. Picasso, who was already well versed in making jewelry, collaborated with Hugo to create large serving platters in gold and silver. Picasso would carve a design in wood, then Hugo would use the ancient technique of repoussé

to hammer out a relief in precious metal. Later they created miniature limited editions of the designs in gold medallions and pendants. *Le grand faune*, an instantly recognizable Picasso motif, is a particular favorite of Guinness's. "Part faun, part cloud, it recurs in Picasso's work often," she says.

A brooch by Jesús Rafael Soto is also immediately recognizable as the Venezuelan artist's work. He collaborated with the Milanese goldsmiths GEM Montebello to create a 1968 brooch/pendant that reflects his preoccupation with optical illusion and the manipulation of space and form. A square-cut piece of lapis lazuli appears to float over silk-screened lines on aluminum and gold. "It sits perfectly with the rest of his work," says Guinness. "The fact that it is a wearable jewel is irrelevant."

Montebello also created the few jewelry pieces designed by Man Ray. The surrealist artist's sense of humor and playfulness come through in *Les amoureux*, a 1970 necklace featuring an oversized pair of gold lips modeled on his famous 1932-34 canvas depicting the lips of Lee Miller, the fellow artist and his former lover. Fascinated by women and the female form, Ray always kept the wearer in mind when he designed jewelry. *Optic Topic*, his 1974 gold-plated sterling silver mask, also made by Montebello, is based on the aluminum masks worn by 1930s race car drivers. Ray's creation allowed the wearer to see out, while the viewer could not see in.

According to Guinness, sculptors often have an adeptness for designing wearable pieces. "They understand three dimensions and consequently tend to find it easier to make jewelry," she says. The Belgian sculptor Pol Bury had a career-long preoccupation with kinetics. Where, in his large-scale work, movement is created through magnets, in his jewelry, it is created by the wearers themselves. Guinness says the gold fronds atop her own Bury ring move like shafts of hair and "rattle like a wheat sheaf in the wind."

Traditional jewelers typically start with a desire to enhance the wearer's or gemstone's beauty. Since artists approach jewelry from a conceptual perspective and are free of a goldsmith's commercial or technical constraints, they bring a fresh perspective. "They make things that are more challenging to wear and interesting to see," says Guinness, who prizes her shoulder-to-shoulder-spanning brass necklace by Calder – the very definition of wearable sculpture. The king of artist jewelry would be proud. ♦



ANATOMY OF A CLASSIC

REF. 5035

In 1996, a watch came to market that would define a whole new category of timepiece. The Annual Calendar bridged a gap between the simple and the fiendishly complex, says Nicholas Foulkes, and, lo, the useful complication was born

Many of the watches that have appeared on these pages are said to have inspired a cult following among collectors, but the word cult can imply a secret world into which initiates are admitted through the practise of arcane rite and ritual.

Analyzed according to that rather clumsy quasi-definition, the REF. 5035 Annual Calendar is the diametric opposite. Its function and capabilities are amply understood through its name; it is a calendar watch that requires the manual intervention of the wearer but once a year at the end of February. Otherwise, so long as the automatic caliber 315 S QA remains wound, the watch takes account of the varying length of months of 30 or 31 days.

This timepiece was conceived to simplify the life of the wearer who wanted to put a watch on and forget about it (yes, there are such people). But it took the appearance of the REF. 5035 to illuminate just how great the gulf was that had existed between the simplicity of the regular calendar watch and the noble complication of the perpetual calendar. In terms of function, mechanical complexity, and price, the REF. 5035 filled a gap in the market that nobody knew existed...at least nobody outside Patek Philippe.

In 2005, a year before the last REF. 5035 was released in platinum, two new models appeared – REF. 5146 and the first ladies' version, REF. 4936. The former eventually replaced the REF. 5035. The popularity, variety, and ubiquity of the Annual Calendar some 24 years after its debut in 1996 testifies to the success of the concept. But its popularity means that we risk taking the Annual Calendar for granted, blinded to the historical importance of this timepiece.

When the REF. 5035 made its debut at Baselworld, dazzling the industry with the originality of its concept, the chasteness of its design underplayed the novelty and made the watch seem somehow already established. A *chemin de fer* minute track encircled a dial ringed with applied gold Roman numerals with a luminous coating, surrounding three sub-dials (day, month, 24-hour time), with a date window at six o'clock. This compact, simple design announced a

complication that had never been mastered before, without resorting to meretricious ostentation to signal the innovation under the dial. The term "instant classic" may be over-used, but in this case it is entirely apposite; picking up this brand-new complication when it was launched, there was the unmistakable sense of recognition. It has since become such a pillar of Patek's twenty-first-century identity that one could be forgiven for thinking that it predated the mid-1990s.

But while it may have appeared in 1996, its story began five years earlier in 1991, a crucial time in watchmaking history. Patek Philippe had not long celebrated its 150th anniversary (in 1989) and had taken the opportunity to reestablish the importance of mechanical complications with the launch of its epochal Calibre 89, for many years the world's most complicated portable timepiece.

The invention of the REF. 5035 began as a diploma topic set by Patek Philippe for final-year students at the Geneva School of

The "inconvenience" for the wearer of having to alter the watch at the end of February to account for the varying number of days was offset by the considerable simplification of life for the watchmaker, doing away with the cam on a perpetual calendar that predicts the sequence of days over a 48-month period and reducing the exact sequential pattern of months over four years to just four mechanical date changes.

It was genius; robust, straightforward, and beautiful in its simplicity, it brought aspects of the functionality of the perpetual calendar within reach of those to whom it would never have occurred to wear one, even if such a model were not prohibitively expensive for many. And it is in catering to this new type of post-quartz customer that the REF. 5035's further classic status resides.

Having been on life support for much of the 1980s, by the 1990s the mechanical watch was at last emerging from the ghetto of the niche collector's item to take its place in the wider world of the quality object and

The compact, simple design of the REF. 5035 announced a complication that had never been mastered before

Engineering. Significantly, the students were exhorted to use a plain calendar wristwatch as their starting point rather than "detuning" a perpetual calendar. This apparently simple stipulation would determine the future of not just this watch but that of a new sector of the watch market.

On an engineering level, this design requirement resulted in a mechanism that used wheels and pinions rather than the cams, levers, and springs (which require fine, time-consuming adjustment) of traditional perpetual calendars. Instead, the new system simplified construction with the cunning addition of two "finger pieces," one of which performed the action previously taken by the wearer's fingers, advancing the date by an extra day at the end of April, June, September, and November.

status-conferring possession, to become the thoroughly modern heirloom celebrated in the company's famous ad campaign. The REF. 5035, so emblematic of this renaissance, featured in the very first installment.

The Annual Calendar was a new type of complicated mechanical watch for a new era in mechanical watchmaking, one in which watches were worn rather than just collected. It offered the wearer the emotional experience of connection with a prestigious object of great ingenuity and cultural value, manufactured by skilled artisans and conceived, designed, and built for daily use.

This new horological culture would become known as the useful complication and would do much to shape Patek Philippe as it is today. It should not be forgotten that it all began with the REF. 5035. ♦

Up among the mountains of Molise in Southern Italy lies a bell foundry that has been operated by the same family since the Middle Ages. Bells are in their blood, but the latest generation of Marinellis ring the changes by bringing a fresh artistic perspective to the craft

Walking into the world's oldest foundry is like opening a time capsule in which nothing has changed since the Middle Ages. There's a large brick furnace for smelting bronze; stacks of wood used to fire up the furnace; loam dug from the mountains for modeling; clay; and long poles used to stir the molten bronze mass by hand. Hundreds of ancient molds hang from the walls. Nearby, you can see wooden templates dating from the year 1000, used to form the bells.

We are visiting the Marinelli pontifical bell foundry in Agnone, a small town with barely five thousand inhabitants – and 12 churches – in Molise, in the heart of Southern Italy. Here, the Marinelli family has handed down the art of bell founding for 27 generations, and the foundry is now the last local example of a metal-casting tradition that dates back 2,500 years. The techniques and procedures have remained unchanged for a millennium. The frenetic pace of modern life has no place in what is Italy's oldest family business.

"We are witnesses to a long tradition of good practice, convinced that no amount of theoretical learning can replace the hands-on experience passed down through centuries," explains Pasquale Marinelli, as his brother, Armando, listens. These two gentlemen, now aged fifty and sixty respectively, grew up in the bell foundry and have managed it since they were in their twenties. "Nothing has changed here. What's more, our strength lies in not having given way to industrial processes; in fact, our modernity derives from our absolute faith in tradition, which is the only thing that can still guarantee such exceptional artistic quality."

The Pontificia Fonderia Marinelli, granted the honor of using the papal coat of arms in 1924 as an official supplier to the Vatican, has always been distinctive for the artistic quality and tonal purity of its bells. These include some of the world's most renowned, such as those in the Tower of Pisa and in the sanctuaries of Lourdes and Pompeii. "A good-sized bell still takes three months to

make. We use Latin inscriptions, and no one bell is identical to another," he adds.

Alongside the two brothers is Ettore, Armando's 28-year-old son, who joined the foundry after studying fine art in Naples and Paris. Ettore is behind the expanding range of artistic works that the foundry also produces, which include statues, busts, and portraits as well as doors and civil and religious bronzes that recall a time when the greatest artists of the Italian Renaissance entrusted their works to the bell founders' expertise.

"We have had many artists in the family, but many of them chose to express themselves through bellmaking here in the foundry," says the youngest member of the Marinelli dynasty. "Agnone certainly isn't Paris, but the place has a visceral attraction that none of us can avoid. I remember playing with clay here in the foundry when I was just three years old, so for me it was natural to come back and bring new inspiration to this thousand-year-old tradition."

STORY Antonella Bersani

PHOTOGRAPHS Alexis Armanet

A brief history of chimes





Ettore Marinelli has indeed brought a breath of fresh air to the historic foundry, in the same way that early Venetian craftsmen and army veterans did in the thirteenth century when they moved here to perfect their artistic techniques and learn how to make decorative friezes.

In the museum adjacent to the foundry there is a bell dating from the year AD 1000 that was almost certainly cast in Agnone. By 1200, the Marinellis had established their foundry, and production has been ongoing for more than 800 years. The oldest surviving record, however, dates from 1339, the year when Nicodemus Marinelli, known as “Campanarus,” cast a large bell close to Frosinone, around 80 miles away.

The materials that are used during the production process at the foundry have remained unchanged: sand, clay, loam, and gypsum; charcoal, wood, wax, and hemp. The process, known as lost-wax casting, can

be divided into four stages. First the “soul” or bell core is made, a clay-coated brick structure that is modeled around wooden templates to shape the inside of the bell. Then a “false bell” is created by covering the core with a second layer of clay, onto which the decorations and inscriptions, modeled in wax, are applied. Next, the “cope” is made by applying further layers of clay until the desired thickness is achieved. At this point, the structure is fired in order to bake it hard, and the wax inside melts, leaving a negative impression of the decorations inside the cope.

Then comes the last phase: the cope is lifted up, and the false bell is destroyed before the cope is again placed over the core. The final model is then buried in a casting pit, where beaters press the earth down using long pistons. By “imprisoning” the mold in this way, it can withstand the pressure created by the molten bronze,

a lava-like stream of red-hot metal that is poured from the furnace into the pit at a temperature of 2,200°F.

The moment of casting is solemn and hypnotic, charged with a nervous tension that is only relieved when the bell has cooled and the craftsmen start to chisel and polish it. Once this is done, the clapper is attached and the sound quality is checked.

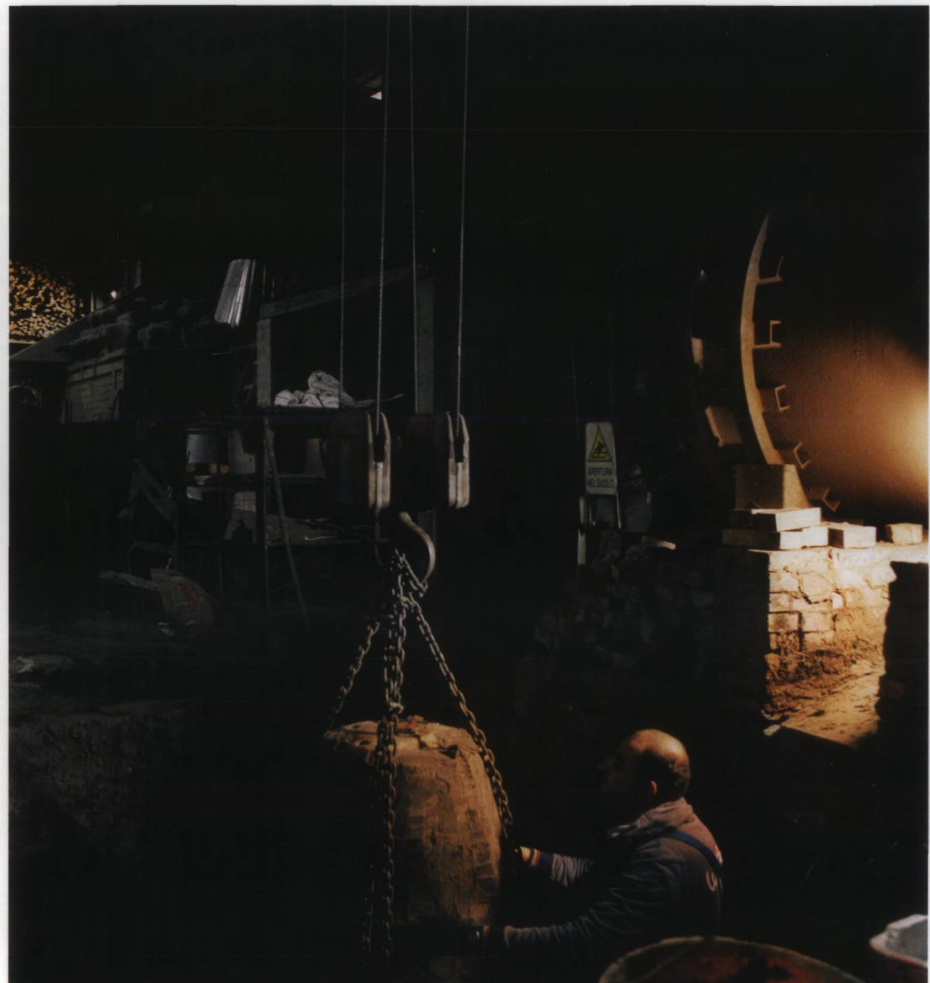
“As in sculpture, for bells, too, it’s all about the proportions, and these were first codified in *De tintinnabulis*, a treatise written by Girolamo Maggi around 1600. A copy of this ‘bible’ is jealously guarded in our museum,” says Ettore.

According to the *scala campanaria* or bell scale, bells can change in size, but the proportions of diameter to base, minimum to maximum thickness, and height must be the same. Each size will produce a precise note. “Let me give you an example,” Ettore elaborates. “A two-hundred kilogram



Page 11: Marinelli bells are installed in the 11th-century San Marco Evangelista church just up the hill from the Marinelli foundry in Agnone. A panoramic view of the surrounding valley can be seen from the bell tower. Above: the Marinellis – from left to right, Ettore, with his father Armando and uncle Pasquale. Left: in the Marinelli workshops,

two works in progress await the next stage of production. Right: bell molds are lowered into this deep casting pit, ready for molten bronze to be poured over them. Once cooled, the bronze bell is lifted from the pit and hand finished by artisans who chisel and polish it before attaching the clapper and testing the chime



[440 lb] bell with a seventy-centimeter [27.5 in] diameter can only be rung in C.”

It takes immense expertise to become a first-rate bell founder. According to another ancestor, Tommaso Marinelli, who laid down detailed guidelines in the eighteenth century, you need to know math, physics, and geometry as well as music, chemistry, and geology.

“His manuscript was the first book to be printed in Agnone, in 1888, and fortunately it was saved from the fire that devastated the foundry in 1950,” comments Armando Marinelli. “The fire was a really tough moment for us, especially coming hard on the heels of World War Two, when the Germans melted down some of our oldest bells and turned them into cannons.”

Despite these setbacks, the Marinelli family has always managed to make a fresh start. Today, the foundry employs a dozen or so people, and the firm is attracting new clients from around the globe. “As well as

bells, we offer transport and installation and the electronic systems to manage mechanical movements.” This is one of the few nods to modernity, and it is a confirmation that the bells of Agnone will always stay abreast of important milestones.

Significant events are marked by the foundry’s output, such as the bell that celebrated the Roman Catholic Great Jubilee in 2000 and the Peace Bell, fused from shell cases gathered by local children in 1998 after the Albanian civil war ended. Others include the 1964 Kennedy Bell, and the Perestroika Bell, made to celebrate the meeting between Pope John Paul II and Gorbachev.

The bell that chimed at the Second Vatican Council held by Pope Paul VI is now housed in St. Patrick’s Cathedral, New York, while the Bell of Stars, with a relief decoration of stars that represent each one of the world’s ethnic groups, has toured Italy and will now travel abroad to celebrate peace and unity.

And for the first time, two bells were rung during a performance of Puccini’s *Tosca* conducted by Claudio Luongo, at Venafro. But the Marinellis are eager for more. “If NASA manages to establish a moon base to use for the Mars mission, we want to cast the bell to celebrate that moment.” ♦

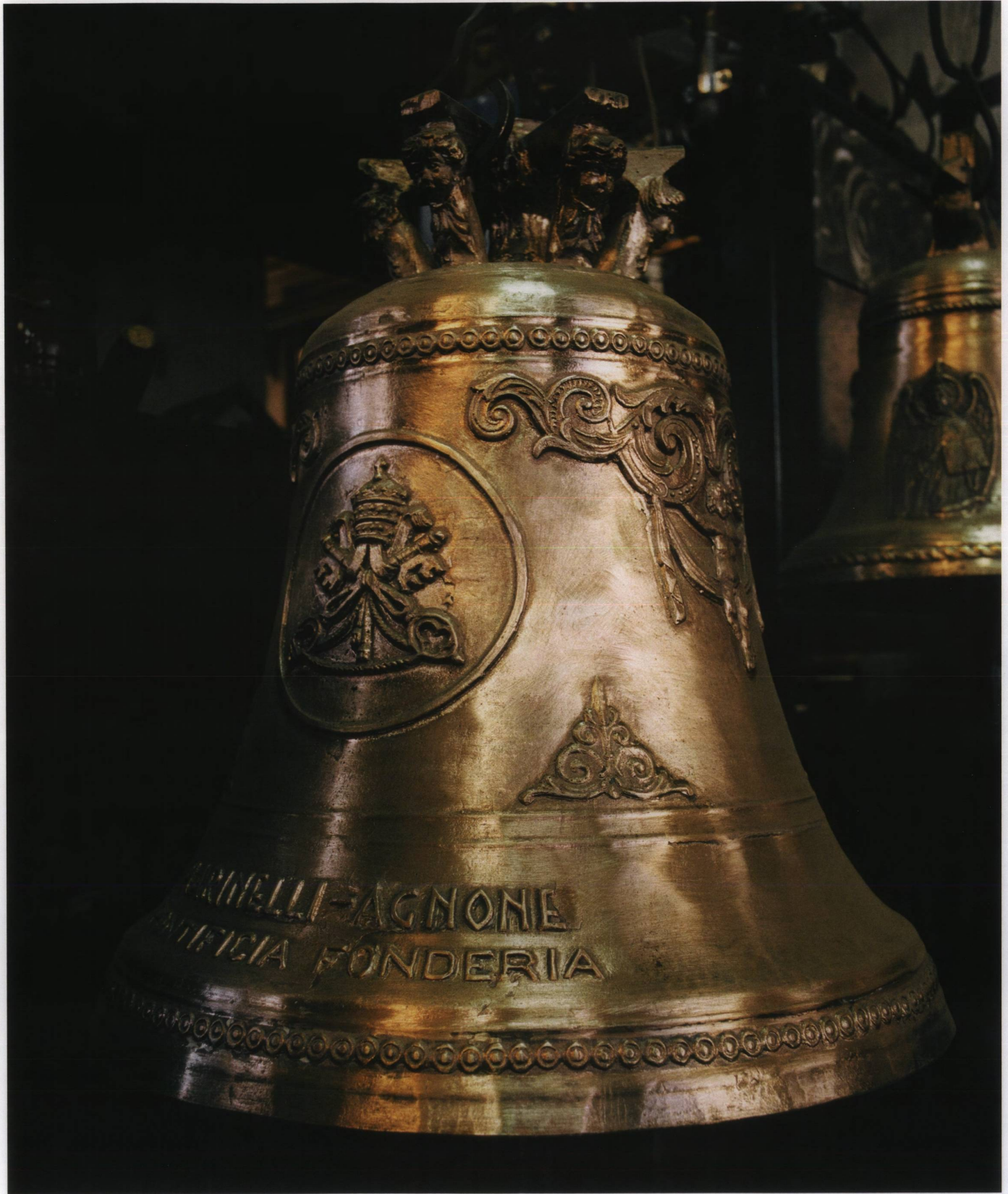
Translated by Lucinda Byatt

A first-rate bell founder needs to know math, physics, and geometry as well as music, chemistry, and geology



Left: for inscriptions and decorations, melted wax is poured onto a plaster mold, then the wax impression is transferred onto the bell mold before the final bell is cast. Above: the final bell is cast.

Right: the finished product, gleaming and majestic, with the Marinelli foundry’s name proudly inscribed around its rim





Patek Philippe: the Singapore story

When the *Watch Art Grand Exhibition* came to Southeast Asia, it celebrated the blossoming of horological crafts through a spectacular floral-themed collection of special edition timepieces. Nicholas Foulkes takes us on a tour of the traveling show that brings Genevan artistry to enthusiasts worldwide



Singapore's National Museum throngs with visitors keen to learn the story of this remarkable Southeast Asian city-state. Among the popular attractions is *Story of the Forest*, an interactive digital diorama of animations. It places the visitor amid a magical jungle conjured from one of the nation's greatest treasures: a collection of 477 botanical and zoological illustrations commissioned by Major-General William Farquhar, colonial Singapore's first British resident and commandant, during the early nineteenth century.

These two-hundred-year-old documents testify to the biodiversity encountered by those first colonial visitors, and the twenty-first-century reimagining of these illustrations, part artwork, part educational tool, is the perfect metaphor for the country today. The lush flora and exotic fauna so characteristic of the region are brought to vivid life in a contemporary manner, using some of the most advanced digital technology. But between September 28 and October 13 last year, museum visitors were deprived of a key component, as a card propped in an empty display case explained.

The exhibit was a cloisonné enamel dome table clock inspired by the same natural history drawings and made using opaque, transparent, and opalescent enamel in 78 colors. Called simply "Farquhar Collection," the dome clock was one of three created by Patek Philippe to commemorate Singapore's 50th year of independence in 2015. Presented to the National Heritage Board for a fundraising auction, the polychromatic masterpiece was purchased by a local collector who gave the clock to the National Museum of Singapore. Happily, visitors did not need to travel far to see the piece. As the card explained, the clock was currently on display just a couple of miles away at the *Patek Philippe Watch Art Grand Exhibition* in the Marina Bay Sands Theatre.

Over the past decade or so, Patek Philippe's Grand Exhibitions have become cultural events, first in Dubai, then Munich, after that London, next New York, and then, finally, the Far East. Having visited the show myself, I can confirm that it was well



A maze-like series of exhibition rooms formed a distillation of centuries of Geneva watchmaking culture

worth the wait. Unlike the exhibitions that preceded it, this was neither a citywide nor indeed nationwide event; instead, it was pan-regional. Singapore was hosting the event on behalf of Vietnam, Thailand, Indonesia, the Philippines, and Malaysia.

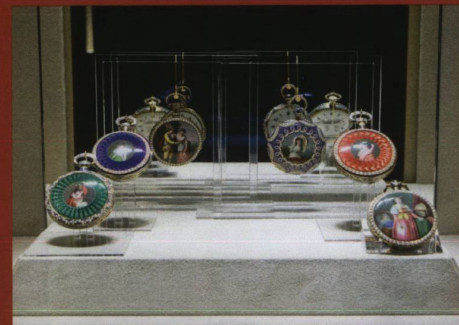
And Singapore rose magnificently to the challenge – even veterans of all the earlier exhibitions were staggered by its scale and ambition. From requesting government permission to create special license plates for VIP cars to the total transformation of the Marina Bay Sands Theatre, no detail was too small, no challenge too great.

The venue is a world-class 2,183-seater auditorium, used to hosting theatrical performances, concerts, and musicals. Yet, those visiting the Grand Exhibition would never have known that they were in a theater, so complete was its transformation into a maze-like series of exhibition halls, screening

rooms, workshops, and galleries that together formed a distillation of centuries of Geneva watchmaking culture. It was only when the exhibition had closed every evening and the lights of the theater itself were turned on that the cavernous space of the auditorium became visible through the black muslin ceiling. Construction took 23 days and had necessitated the removal of 1,189 seats in order to create a new floor of nearly 19,500 square feet before the maze of rooms could be built.

As the opening ceremony neared, Singapore was convulsed with Patek mania, with excitement on social media growing as each day passed. Media, collectors, and enthusiasts from all around the region and as far away as Europe and North America arrived at Changi Airport.

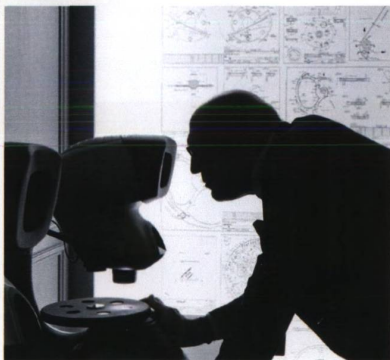
The morning after my arrival, I found myself in the larger of the two screening



Pages 16, 17 & 18: the Tokyo-based French artist Emmanuelle Moureaux's 100 Colors in the Spirit of Majulah Singapura sculpture in the foyer, inspired by frangipani flowers, a symbol of grace, wealth, and perfection across Asia. Top left: paper creations in the Singapore Historic Room by the Paris-

based sculptor Marianne Guély. Top right and below that: the Museum Room housed a selection of pieces from the museum's Patek Philippe Collection and its Antique Collection. The former included the Calibre 89 – the world's most complicated watch until 2015; the latter, early nineteenth-century watches

made for the Chinese market featuring miniature painting on enamel. Above: all the latest models and limited editions specially created for the show were displayed in the Current Collection Room. Left: the Napoleon Room from Patek Philippe's Geneva Salons was recreated, with a live-action view of Lake Geneva



Top left and middle: the Movements Room, where an interactive sculpture showed calibers from the current collection. Far right: in the Rare Handcrafts Room, artisans, including a guillocheur (top) and an engraver (bottom)

demonstrated their skills. Above: Patek Philippe's specialists were on hand in the Engineers Room (left) and the Watchmakers Room (middle) to tell visitors about the intricacies of Patek Philippe's movements

rooms, sharing the stage with the noted watch-industry figure and ardent Patek Philippe collector Jean-Claude Biver, discussing the watches of the Calatrava cross in front of a rapt, packed audience. As the author of the authorized biography of Patek Philippe, I was asked to sign a few copies. Those "few" soon turned into a mass. It was humbling to see such enthusiasm.

However, that was nothing compared to the crush in the Grand Exhibition. With visitors standing four, five, and sometimes six deep in front of vitrines and demonstrations of rare handcrafts, I was reminded of the congestion at the exhibition of artefacts from Tutankhamun's tomb that I had attended as a child in the 1970s. The passion,

excitement, and wonder crackled palpably through rooms buzzing with conversation.

Over the two weeks or so of the Grand Exhibition, 68,000 visitors were able to experience the world of Patek Philippe from the moment they walked among the lampposts that recreated the streets of old Geneva in the foyer. It was as if the historic salon on the rue du Rhône, the world-famous museum on the rue des Vieux-Grenadiers, and the Plan-les-Ouates manufacture had been transported across seven time zones and over six-and-a-half thousand miles in order to be re-erected in the city-state of Singapore. Beyond the walls of the Geneva salon and the Patek Philippe booth at Baselworld, one never sees the complete

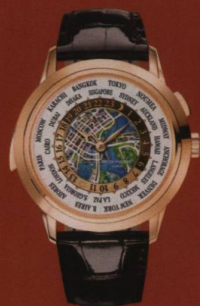


Singapore 2019 Special Editions



REF. 5303

The 42 mm dialless grand complication Minute Repeater Tourbillon in rose gold stands out with open architecture, the face revealing mesmerizing hammers and gongs at work. Created in a limited run of 12 pieces, it is fitted with the caliber R 27 PS



REF. 5531

Fitted with caliber R 27 HU, the rose gold 40.2 mm World Time Minute Repeater always sounds the current local time in the city that is selected at the 12 o'clock position. The dial features a Singapore map in cloisonné enamel. Just 5 pieces were made



REF. 5930

This white gold World Time Chronograph is fitted with caliber CH 28-520 HU and combines a self-winding fly-back chronograph with a World Time mechanism showing 24 cities. A limited edition of 300 was created, each measuring 39.5 mm in diameter



REF. 7234

The Calatrava Pilot Travel Time, in a limited run of 400, has a medium-sized 37.5 mm stainless steel case, and dial and strap in a blue-gray hue. It is fitted with the automatic caliber 324 S C FUS with local and home time and date display synchronized with local time



REF. 5167

Red denotes good fortune in Southeast Asia, and this stainless steel Aquanaut in a limited run of 500 features red accents such as the composite strap, seconds hand, and minute markers. Fitted with the caliber 324 S C, its case measures 40.8 mm



REF. 5067

Luminous hands and large applied Arabic numerals make the structured dial of this ladies' Aquanaut Luce superbly legible. In a limited edition of 300 with a 35.6 mm stainless steel case, the watch has a raspberry-red dial and a striking diamond-set bezel

Singapore 2019 Rare Handcrafts: Special Editions



REF. 5089G-083

This "Dragon" Calatrava features an important Southeast Asian symbol in marquetry, created using 16 different species of wood. The 38 mm timepiece has a white gold case with a sapphire crystal caseback and hinged dust cover



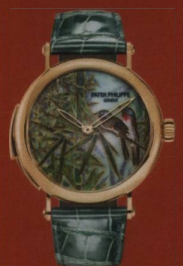
REF. 5089G-084

A mythical bird in wood marquetry adorns the dial of the "Phoenix" Calatrava. The scene was created using 185 tiny pieces of wood and 30 intarsias. The watch has a 38 mm white gold case featuring a sapphire crystal caseback and a hinged cover



REF. 5077/100R-040

This rose gold variation of the white gold "Orchids" Calatrava model (below) is fitted with the caliber 240 and a 38 mm diameter case. The transparent, opaque, and opalescent colors of the cloisonné enamel dial are enhanced by miniature painting on enamel



REF. 7000/50

Decorated with a cloisonné enamel scene, the dial of this rose gold minute repeater was created using a palette of 22 transparent, opaque, and opalescent enamel paints. "Titmouse in the Reed," with a 33.7 mm case, is fitted with the automatic caliber R 27



REF. 5077/100G-037

This 38 mm Calatrava with a colorful dial is from a series of three "Portraits of Flowers" watches. The piece is decorated with yellow mimosa in miniature painting on enamel and features a matching yellow alligator strap and decorative diamonds



REF. 5089G-085

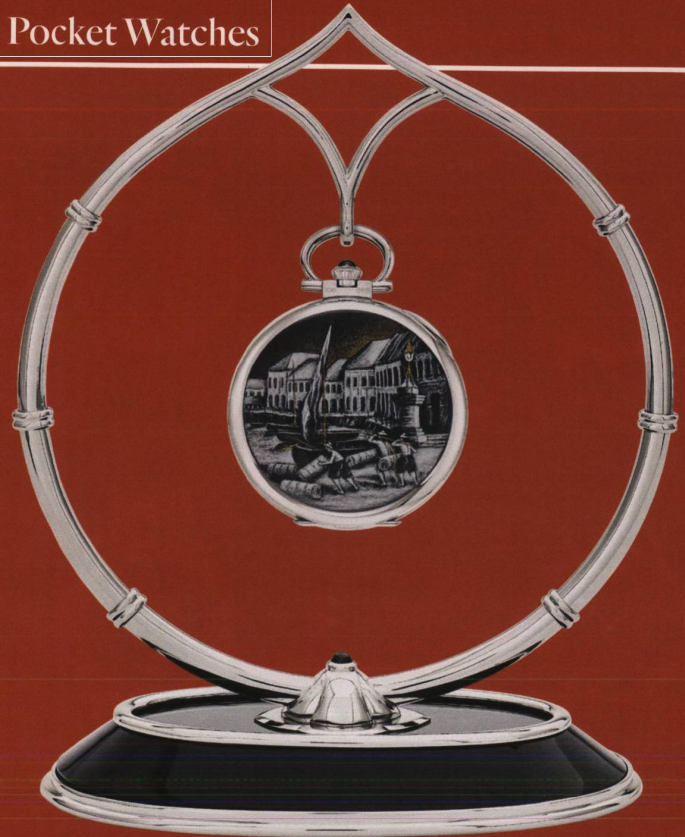
This 38 mm white gold wristwatch is decorated in cloisonné enamel and miniature painting on enamel using a palette of up to 21 colors. The contours of the blossoms on the "Orchids" Calatrava are accentuated with fine gold wire

Singapore 2019 Rare Handcrafts: Unique Pocket Watches



REF. 992/144G

Based on a painting by the American artist Martin Johnson Heade, this 44.1 mm manually wound white gold "Orchids and Hummingbirds" pocket watch features an intricate miniature scene created from a palette of pure and blended enamel paints. It has a white gold handcrafted stand with a white spangled marble base



REF. 992/150G

The monochrome scene depicted on the caseback of this manually wound 44.1 mm white gold "Old Port of Singapore" pocket watch was created using Limoges white enamel and the extremely rare technique of *grisaille* enameling. The hand-crafted white gold stand rests on a black obsidian base



REF. 997/104J

This 44.1 mm manually wound yellow gold pocket watch, "Arowana Fish and Water Lilies," has two wood marquetry scenes, one on the caseback (shown here) and one, on the dial, of water lilies. Yellow gold hands and applied Breguet numerals adorn the dial



REF. 992/145J & REF. 992/146G

Oriental tapestries inspired the design of this pair of manually wound "Gold Birds" pocket watches. The resplendent bird in either yellow or white gold and the floral *champlevé* enamel design were engraved by hand, as was the decoration around the circumference of the case and bezel. The dial, in red or black enamel, features Breguet numerals and engraved hour and minute hands. Each case measures 44.1 mm in diameter and comes with a yellow or white gold stand on an oval base of red jasper or black obsidian

REF. 992/153C

The "White Tiger" pocket watch features miniature painting on enamel on its caseback. The 44.1 mm manually wound white gold watch has a hand-guilloché and hand-engraved dial design that echoes the blue *flinqué* enamel river on the back. The piece also has a white gold stand set with a green tourmaline cabochon and a white and grey marble base



collection of Patek's timepieces, and yet here they all were in Singapore, arranged in vitrines to recreate the view that greets visitors at the salon at 41 rue du Rhône.

More than 120 pieces from the museum had made the lengthy journey, too, as had all the company's movements, from the simple caliber 215 with its demure 21.9 mm diameter and 130 exquisitely finished components to the 1,366 parts of the Grandmaster Chime REF. 6300 that interact at its heart to create the tour de force that is the 300 GS AL 36-750 QIS FUS IRM movement.

And for visitors who wanted to dive deeper, there was a room consecrated to the engineers. If each movement is a micro-mechanical ballet, then the engineers are the expert choreographers who design and construct a miniature universe of bridges, wheels, springs, levers, and pinions.

As at previous Grand Exhibitions, collectors were rewarded with the sight of a series of special editions, a list topped by the dialless REF. 5303 Minute Repeater Tourbillon, unveiled on the opening day in a limited series of 12 pieces with the hour circle edged in red to honor Singapore. Red was also a feature of the 500 REF. 5167 special edition Aquanauts that each came on a red composite strap with a red seconds hand and red minute markers; complementing these was the raspberry-red dialed and strapped Aquanaut Luce REF. 5067 in a limited series of 300 watches.

Perhaps reflecting the exhibition's distance from Geneva, the collection of limited

REF. 992/118J
& REF. 992/130J

"Junks," a pair of yellow gold pocket watches each measuring 44.1 mm in diameter, feature mirrored river scenes on their casebacks, created in marquetry using 27 species of wood. Each of the ships is reflected in the water. The yellow gold dials both feature applied Breguet numerals and a guilloché sunburst design, either coated with transparent yellow gold or blue *flinqué* enamel



REF. 997/101J
& REF. 997/102J

To create the mirrored image caseback scenes on this pair of 44.1 mm yellow gold "Junks in the Fog" pocket watches, the artisan used 200 tiny pieces and 200 intarsias made from 27 different wood species. The dials are manually guilloché with a sunburst motif; one is coated in transparent yellow gold, the other has blue *flinqué* enameling. The pieces are also shown far right on their yellow gold stands with a Makassar ebony base





Singapore 2019 Rare Handcrafts: Unique Dome Table Clocks

REF. 20091M

The complex cloisonné enamel floral motif on this “Batik on Blue” dome table clock (above and below right) references the color palette of famous Indonesian printed fabrics. The intricate enameling is further enhanced with a series of silver spangles

REF. 20092M

The “Batik on Black” clock (above and right), inspired by Malaysian sarongs crafted using ancestral batik techniques, features cloisonné enameling enhanced with hand engravings and miniature painting on enamel as well as a guilloché hour circle

REF. 20093M

Motifs from traditional Indonesian fabrics are reimagined in cloisonné enamel on the “Batik on Red” clock (above). Fine detail is rendered using miniature painting on enamel, while a luminous finish is created using 350 silver-leaf spangles

REF. 20094M

An iconic cityscape by night is depicted on the “Bay of Singapore” clock (above and below left) using *grisaille* enameling. Shades of gray are created by sculpting white enamel, known as *blanc de Limoges*, onto opaque black and blue enamel

REF. 20095M

Luminous colors abound on the “Tropical Flowers” dome table clock above, decorated in cloisonné enamel. The shapes of the flowers’ stems, made from tiny flat gold wire pieces, are gently manipulated by hand in order to create the angles and curves



editions also included three notable travel time interpretations: the power of red was once more evoked on the dial and in the strap stitching of a 300-piece run of the REF. 5930 World Time Chronograph, while the blue of the oceans of Southeast Asia gave a special character to an exclusive 37.5 mm diameter steel-cased 400-piece

edition of the REF. 7234 Calatrava Pilot Travel Time, and a Singapore map in intricately wrought cloisonné enamel graced the dial of the World Time Minute Repeater REF. 5531. Indeed, throughout the show there was evidence of the wider cultural mission of Geneva’s last independent family-owned *grande maison horlogère* – a devotion to protecting and nourishing artistic crafts.

This mission was apparent wherever the eye alighted, whether on such brand-new pieces as the Calatrava REF. 4899/901G with its engraved mother-of-pearl dial painstakingly set with hundreds of tiny diamonds and sapphires, or early seventeenth-century masterpieces such as the exquisitely enameled timepiece depicting the Judgement of Paris and the Abduction of Helen.

Nowhere was this mission more evident than in the pieces depicting Southeast Asian motifs using the precious techniques nurtured in the ateliers of Patek Philippe. The “Batik on Blue” dome clock is a joyous masterpiece in polychrome *grand feu* cloisonné



enamel. The historical oriental tradition of watch pairs is revived in two stunning pocket watches that use the creative discipline of wood marquetry to create mirrored depictions of a traditional junk ship wreathed in gauzy tendrils of river fog. Such is the virtuosity that at first the eye is deceived into believing these casebacks are miniature painted scenes, but instead the artist’s





palette is 27 species of wood in varying colors, grains, and textures.

Another scene from Southeast Asia's past, the old port of Singapore, is interpreted in the dramatic medium of *grisaille* enamel enhanced with gold dust, which, with its stunning chiaroscuro, is perfectly suited to the atmospheric scene of ships unloaded by moonlight. Elsewhere, the flora and fauna that entranced those first European settlers is evoked in a dazzling variety of ways: engraving, miniature painting, wood marquetry, cloisonné enamel, and so on.

As well as its history and wildlife, Southeast Asia's modernity is saluted with a series of cloisonné and *flinqué* enamel table clocks featuring dials with city center maps of Singapore, Kuala Lumpur, Manila, Jakarta, Bangkok, and Hanoi. As host city, Singapore emerges first among equals with a further unique piece, in cloisonné enamel and guilloché. The map extends beyond the dial to cover the *bombé* surfaces with the pleasing latticework of streets and boulevards, parks, and waterways, and it captures the development of this thriving city-state in a manner that is uniquely Patek Philippe.

Perhaps it will enter the permanent collection at Patek's museum. Then again, it may find its way onto the desk of one of Singapore's connoisseur collectors. Either would be fitting. However, it occurs to me that the most suitable home for this stunning timepiece would be in the National Museum, where it could be exhibited alongside the Farquhar clock, serving as a memento of the historic days in 2019 during which the Patek Philippe Grand Exhibition took place in Singapore. ♦



REF. 25003M
SINGAPORE



REF. 25004M
SINGAPORE



REF. 25005M
KUALA LUMPUR



REF. 25006M
MANILA



REF. 25007M
JAKARTA



REF. 25008M
BANGKOK



REF. 25009M
HANOI

To commemorate the Southeast Asia Grand Exhibition, Patek Philippe created a collection of exquisite table clocks that depict maps of prominent city centers in the region. Since Singapore was the exhibition host, it has two unique 126 mm diameter versions: the REF. 25003M (top left and far left), which has guilloché silver enameled on the dial and

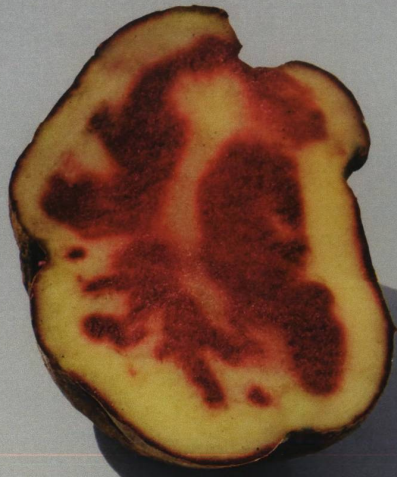
the cambered side panels; and the REF. 25004M (top right), which features a cloisonné enamel dial and silver side panels with a guilloché motif beneath transparent turquoise blue *flinqué* enamel. On each dial, four steel lozenges mark the quarter hours and compass points. Five further unique table clocks depict city center maps in Kuala Lumpur, Bangkok, Manila, Hanoi, and Jakarta



Living treasure

STORY *Jorge E. Benavides*
PHOTOGRAPHS *Nick Ballon*

Up in the cloud-capped Andes, Julio Hanco presides over fields of buried treasure. A guardian of biodiversity, he creates, names, and nurtures strange and wonderful varieties of potato; from the baby guinea pig to the puma's paw, he adores his tubers as if they were his children







Previous pages: left, the Potato Man surveying the Andes and, right, potato halves, looking like strange fruit. These pages: the cloud-cloaked valley in Pampacorral and, beyond,

snow-dappled Sahuasiray, one of the highest peaks in the Andes. Like his ancestors, Julio Hanco believes in the protective spirit of the mountain. "He looks after us," he says

Julio Hanco's hands are calloused and tough but still warm and friendly. As soon as you touch the skin of this man, who farms in a millennium-old traditional way, you can't help but think of the remarkable potatoes he grows. "Have you had a good trip?" he asks in a rough Spanish accent. He barely speaks Spanish, and his son Hernán must translate from Quechua, the language inherited from the ancient Incas who once populated this region, the Andean community of Pampacorral in Peru.

Good trip? Out of courtesy we say yes, though we've arrived four exhausting hours after leaving Cusco, the ancient capital of the Incan empire, zigzagging along an increasingly empty road speckled with gaps and potholes that rises through green

valleys and vertigo-inducing cliffs, past remote creeks and clouds that gather around summits, until we reach a fork in the road. "Here it is," says Hernán, who came with us from the city. The all-terrain vehicle scales the mud and rocky path slowly and with difficulty, like a prehistoric animal.

From time to time the vehicle gets stuck in the mud, and we have to hop out and push it. Twenty minutes later, two, three, four small adobe buildings appear on the horizon, surrounded by potato fields. In the distance, languid alpacas graze, and farther still, gruff llamas delightfully toss grass into the air. In the background, wrapped in a multicolored alpaca poncho, Julio Hanco, the Potato Man, waits. He invites us to enter the main building, which serves as

his home. There, his wife kindles a fire while a few *cuyos* – a type of guinea pig – run around her legs. They emit piping cries that sound like a Bluetooth device and look like adorable stuffed animals or lovely pets. "They're wonderful," Hanco says wryly. (Clearly, they're not pets.) The other building, a hundred steps away, is a warehouse for the precious potatoes.

The horizon, momentarily clear, leaves us breathless. Suddenly we make out a solid, rocky mass that rises to unimaginable heights. The dense clouds had hidden the mountain, as if distrusting of strangers. It's known as Sahuasiray or Q'olqe Cruz (Silver Cross) and at its snowy summit it reaches an overwhelming 19,088 feet, making it one of the tallest peaks in the Urubamba

mountain range, which extends to the other edge of the Sacred Valley of the Incas, where Machu Picchu lies.

Q'olqe Cruz is an *apu*, a mountain that locals consider a divine protector. That's what Hanco believes. He looks reverently at the stately giant, which will soon be wrapped in shadows. He has always paid the mountain his respects, ever since he was a child waiting impatiently for scarce pieces of bread that seldom materialized. His father told him, "If you want bread, plant potatoes and buy or trade for it." And that's what he did. Today, he prefers a dark beer, which his children occasionally bring him, to devotedly water his *apu*'s earth. "He looks after us," Hanco affirms.

The farmer's face is tanned, weathered by the climate as if it's been carved on a tree trunk, but his battered look dissolves when he smiles proudly and hurries to show us

humanity from starvation and is today the third most consumed food on the planet after rice and wheat. Beyond its importance as a staple food, it is excellent for sale and barter and lends itself well to experimentation and the creation of infinite varieties. But above all, potatoes can become a legacy.

In Pampacorral, seedlings are protected by a circular wall of rocks just over three feet in height. "So the animals don't eat them," Hanco says, as he shoos away a llama that looks at us as if offended before heading gracefully toward its flock. The air is cold and damp, and oxygen seems to thin at this altitude, almost 14,000 feet above sea level. Heart beating fast, it's hard to walk and breathe at the same time. But the real challenge is to continue talking while also keeping up with the Potato King's stride as he carefully corrals his llamas and alpacas. Not remotely out of breath, he

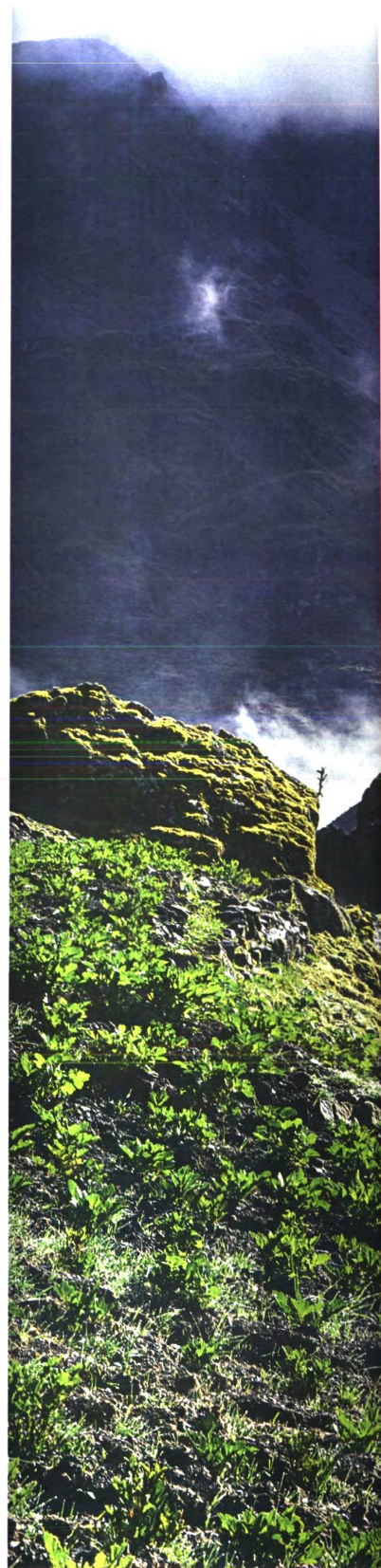
He could continue reciting the names of the four hundred varieties. "Four hundred and fifty, actually," he clarifies


his crops. These unique tubers have earned him that title of Potato Man, or Potato King, a title he doesn't reject or deny, as if such distinction were a frivolous aspect of such a central part of his life. The vocation is an inheritance from his father, Joaquín, who got it from his father, Tomás, and he from Valentín Hanco, in a timeline that unravels in Julio's tales. He's 67 years old, but his ancestors can be traced way back.

It's believed that Andean farmers were the first to cultivate potatoes some eight thousand years ago. Since then, they've produced more than three thousand distinct varieties. The potato harvest has been the backbone of life in this region, and it was an essential part of the fifteenth- and sixteenth-century Incan empire. From its origins in the Andes to its distribution throughout Europe, the humble potato has often saved

explains, "Without these animals, there are no potatoes." It's true. Without the natural fertilizer the dreamy-eyed animals produce, it's impossible for the earth to flourish.

In the field Hanco has labored to plant, he precisely identifies each bunch of shoots: *qello huancarani*, *azul waña*, *sayuseray*, *puka chapina*...and he could continue endlessly reciting the Quechua names of the four hundred varieties. "Four hundred and fifty, actually," Hanco clarifies with persnickety precision. He's been cultivating them since he was 15, and presents them to us as a proud patriarch would his descendants. He continues naming varieties for some time. There's no way of writing down these names, phonetically alluring yet inscrutable – *q'arwisha*, *yanaq'osi*...Soon his son Hernán will patiently translate for us, but right now we pant and hop between the tender shoots





The good earth: Julio and his wife Rosa work on the high outcrop where their plants flourish. Though it's bright today, the mountain climate can be harsh – either very hot or very cold

This page: sweet-faced, hardy alpacas gaze docilely at the photographer. It's their thick, soft wool that Rosa weaves and turns into everything from blankets to ponchos to *chullos* (Peruvian woolen caps).

Opposite (top): a trove of seed potatoes insulated with straw and left to sprout. They'll be replanted to continue their proud heritage. Crops are small and mainly eaten by local people and family and

friends, though Rosa sets up a roadside stall during harvest time. Opposite (bottom): amid the mountains, Julio repairs a traditional garment using a mechanically-powered treadle sewing machine



as the farmer covers the growing plants with small handfuls of straw to protect them from the cold.

The clouds, dense and relentless, now drag along the ground like something from a Stephen King novel, and soon night will fall. It's time to return to Hanco's home, where his wife Rosa cooks a thick, delicious soup over a wood stove. The soup's base is *chuño*, a freeze-dried potato, a staple in this region. *Chuño* soup, with a bit of lamb. Or llama. Tomorrow, we'll have a similar soup for breakfast, made with a different type of potato. These soups, stirred in pots blackened by fire and time, must taste exactly like those Hanco's ancestors ate: primal, rustic, and without any Western garnishes.

At night, the wind's incessant whistling and gusts of rain cause us to worry about the potatoes, but hopefully they'll be well protected. Next day, at 4.30 A.M., as the sun is rising, we exhaustedly follow Hanco as he walks, relaxed and agile, observing his crops with wisdom and satisfaction.

As in children's fables, the Potato King is the youngest of seven brothers, and he inherited a mythical-sounding 50 seeds from his father, since he was the only one interested in this awesome variety of potatoes. As most varieties aren't produced in large enough quantities to be commercially cost-effective, in order to pursue further experimentations with his potatoes, Hanco received the help of the Peruvian National Association of Organic Growers and the Slow Food organization. With their aid, he took a variety of potato chips to the Terra Madre Salone del Gusto in Turin, Italy, the most important international event in the Slow Food calendar and dedicated to "good, clean, fair food." They were a hit.

But he returned home and continued living as his parents, grandparents, and great-grandparents had. The family home has no power line or running water. He has just a motor-powered light that sporadically turns on and off. This doesn't seem to worry Hanco. His mission is to continue the adventure undertaken by the "greats" in his lineage, to create new types of potato, one for nearly every occasion. For example, the



one he's cut open in front of us is used as an offering to the best man at a wedding. It's a round, yellow potato with red streaks. Another one, *Puka Ambrosio*, is named after his nephew. There's also puma's paw, baby guinea pig, cow's horn... "That one there," he points, "is called 'the one that makes the daughter-in-law cry.'" It's a tradition that young women compete for their future husband by cooking for the husband's family using these potatoes, which are extremely difficult to peel, he explains. Rosa listens, smiling. She wasn't put through that test.

Hanco returns her smile. They've been together for 29 years, and their parents arranged the wedding. But Rosa also loves the unusual potatoes her husband creates.

She must feel like an artist's wife. I find I'm fantasizing as we eat, glancing down at the forms and colors of the potatoes that Hanco had been cutting open onto a sheet on the ground for our admiration. It's not totally far-fetched to think you're looking at one of Kandinsky's works of densely multicolored, ringed circles squashed together. In that way, Julio is a misunderstood artist in his family, although now they're all proud of what he does. Only Hernán says he hopes to gain his father's wisdom and therefore become worthy of continuing the tradition. Hernán is the youngest, too. Of seven? No, of five, he says, puzzled by the question. And we finish our potato soup. ♦

Translated by Ruben Reyes



STORY *Pierre Maillard*

TEN YEARS AND COUNTING

In 2009, a new in-house movement was debuted in the Ladies First Chronograph. A decade later, the fruit of Patek Philippe's quest for technical ingenuity can be seen in this growing family of remarkable timekeepers

November 2009, Place Vendôme, Paris

Thierry Stern made his first major public appearance as the new president of Patek Philippe in November 2009 at the company's salon in Place Vendôme. The timing was perfect, since he was there to present the Ladies First Chronograph, the first watch to receive the Patek Philippe Seal. It was also the first model to be equipped with a brand-new manually wound chronograph base caliber developed and built entirely in-house: caliber CH 29-535 PS (only the second movement of this type, following caliber CHR 27-525 PS, the thinnest split-seconds chronograph ever made, launched in 2005).

While the designation CH 29-535 PS may seem rather obscure, all becomes clear when you realize that the "CH" stands for "chronograph," "29" for the diameter



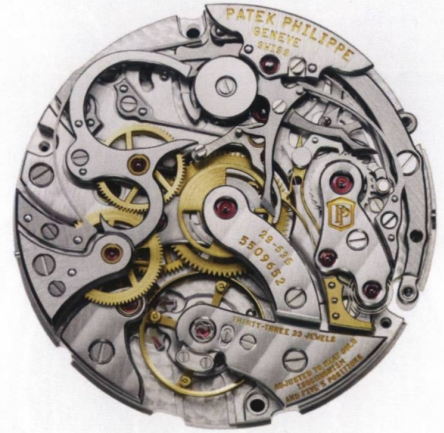
CH 29-535 PS



REF. 7071R
2009

The manually wound two-pusher chronograph caliber CH 29-535 PS (right) with small seconds, column-wheel control, and a horizontal clutch was built entirely in-house. The movement debuted in 2009, inside the Ladies First Chronograph REF. 7071R (left), which has a cushion-shaped case. The 2018 REF. 7150/250R (shown on page 35 and below) is a descendant of the 2009 model but with a new round case and pulsimeter scale. In 2010,

the first men's piece to feature the brand-new movement was released – REF. 5170J (below). And the latest men's model fitted with the CH 29-535 PS is REF. 5172G (page 35 and below). With a reworked dial, including a blue background and contrast luminescent white gold applied Arabic numerals and hands, as well as vintage nuances on the case such as the sapphire crystal “box” glass, this new reference replaces the original men's REF. 5170



REF. 5170J
2010



REF. 7150/250R
2018



REF. 5172G
2019

(exactly 29.6 mm), “535” for its height (5.35 mm), and “PS” for “petite seconde” – that is, the small-seconds sub-dial. The name identifies a magnificent and highly refined chronograph movement, destined to replace and surpass the renowned CH 27-70 (which was based on a movement blank produced by Nouvelle Lémania for exclusive use by Patek Philippe). Work on the new in-house caliber had begun as early as 2001, with an initial design presented in 2004. However, the movement was deemed too tall at 5.77 mm. Philippe Stern was

adamant that it had to be brought down to 5.35 mm, so it was back to the drawing board, and it took another five years before success was achieved.

Developing a refined classic

Whereas the trend in 2009 was toward spectacular three-dimensional movement architecture, the new caliber that was eagerly awaited by Patek Philippe's collectors played on a compact, ultra classic theme: a column wheel crowned with a polished cap; a horizontal clutch system with an

S-shaped clutch lever; an elegant and refined chronograph-wheel bridge and minute-counter bridge; a large four-spoke Gyromax® balance wheel with four poising weights, beating at a frequency of 4 Hz or 28,000 semi-oscillations per hour; and a Breguet overcoil. The movement also controlled a sophisticated instantaneously jumping 30-minute counter. That was no mean feat, since it entails building up additional energy that can be released instantaneously. That instantaneity, like a rhythmic accent in a musical pattern, adds

to the precision and legibility sought after in a chronograph. The whole 269 parts were contained harmoniously in a tiny space.

The elegantly shaped components, the old-style bridges, which were chamfered, polished, and decorated with Geneva striping, and the meticulous hand-finishing on every surface gave the new chronograph the allure of a classic car, although in reality it was a true Formula One specimen.

The key is in the detail

Six new patents were filed for this chronograph. They are basic patents, seeking less

to revolutionize watchmaking on the surface than to improve its substance. And that makes all the difference.

The six new patents relate to advances in details that, taken together, contribute to greater mastery of the art of chronographs. Not only do they provide improvements such as more efficient energy transmission, reduced friction, increased rate accuracy, and reduced vibration or quivering of the chronograph hands, they also have a direct effect on the watchmaker's job. By making assembly easier, the improvements enabled the watchmaker to devote his skills to the

most delicate and demanding adjustments of the movement. For example, a large eccentric cap placed directly over the column wheel certainly prevents oil from rising to the surface, but it also allows for more precise adjustments and therefore opens the way to greater functional reliability.

A highly anticipated model for men

That Patek Philippe chose to present the new manually wound chronograph caliber in a watch for women demonstrates the manufacturer's long-standing commitment to ladies' timepieces. Male collectors, well

CH 29-535 PS Q



REF. 5270G
2011

In 2011, the perpetual calendar chronograph CH 29-535 PS Q (right) was released, debuting in the white gold REF. 5270 with a silver opaline dial as well as indexes and hands in black-oxidized gold (left). The dial design is highly legible due to its simple seconds track and clean sub-dials. The first rose gold model, REF. 5270R (below), with a silvery opaline dial, rose gold hands, and applied rose gold hour markers was released in 2015 with the

addition of a tachymeter scale. The 2014 platinum REF. 5271P (below) has a striking black dial with matching backgrounds in black for the day and month apertures, while the bezel, lugs, and folding clasp are set with 80 baguette diamonds. The year 2018 welcomed the REF. 5270/1R with an ebony dial and an 18k rose gold bracelet that has three correctors integrated into the links closest to the case for adjusting the month, year, date, and moon phases



REF. 5271P
2014



REF. 5270R
2015



REF. 5270/1R
2018

CHR 29-535 PS Q



REF. 5204P
2012

A perpetual calendar chronograph with split-seconds was added to Patek Philippe's growing CH 29-535 PS chronograph collection in 2012. The caliber CHR 29-535 PS Q (right) featured a new split-seconds mechanism, and it debuted in the platinum REF. 5204 (left), which has an 18k white gold opalescent dial and applied gold luminescent baton markers as well as

sleek black oxidized hands with Superluminova® inlays. Four years later, a bracelet version – the REF. 5204/1R – debuted in rose gold (below). This new model is fitted with the same manually wound movement and has an ebony black opaline gold dial as well as an 18k gold case and solid gold bracelet



REF. 5204/1R
2016

An ingenious mechanism reduces miniscule problems of alignment between the split-seconds band and the chronograph hand

aware of the launch of this manually wound caliber, had to remain patient until 2010.

Combining pure, uncluttered lines with an absence of additional complications in the interests of extreme legibility, the men's chronograph REF. 5170J was powered by the same movement, CH 29-535 PS.

With its graceful proportions, the watch evoked the models of the 1940s and '50s: 39 mm in diameter, with a height of 10.9 mm and a distance from lug to lug of 21 mm. On this model, too, are the shaped components, the old-style bridges, and the meticulous finishing of even the smallest surface, most often with hand-executed decoration. No sooner had it been launched

than it became a great classic in the galaxy of Patek Philippe chronographs. And having surpassed the venerable Nouvelle Lémania base caliber CH 27-70, on which the manufacture had built its most beautiful chronographs, the CH 29-535 PS had now opened a new chapter in this chronicle, in which Patek Philippe was dedicated to developing and improving the classic chronograph.

Chronographs and complications

In 2011, Patek Philippe enriched its new line of chronographs by equipping the base caliber CH 29-535 PS with its first complication, the perpetual calendar. The first watch thus endowed was REF. 5270 in white gold.

"This perpetual calendar and the split-seconds function that followed were part of the plan from the start of the CH 29-535 PS adventure. Since readability is the cardinal virtue of a perpetual calendar, we immediately moved the counters off-center and down to the lower part of the dial," says Philip Barat, head of watch development. The dial, moreover, reflects the classicism of the motor inside: day and month in a double aperture at twelve o'clock, analog date at six o'clock with integrated moon phases, a subsidiary seconds dial at nine o'clock, and an instantaneously jumping 30-minute counter at three o'clock. "But we are never satisfied with doing the same as we have done

before. There are so many subtle differences. With Patek Philippe's technical know-how, we can rework everything, taking a classic approach but constantly devoting our skills and experience to improvements and subtle corrections. The classical aesthetic of the movement is perfect; with a lot of steel components you don't see the difference, but technically, it is truly a modern jewel."

The following year, in 2012, this same perpetual calendar chronograph caliber acquired a split-seconds mechanism. It was housed in the REF. 5204 chronograph.

Once again, the classicism of the approach did not prevent the inclusion of two technical innovations. As always, they related to the refinement of details. A new isolator mechanism suppresses permanent contact between the rattrapante lever and its heart-piece, ensuring that when the split-seconds

wheel is stopped, the amplitude of the balance is not affected. Another ingenious mechanism reduces minuscule problems of alignment between the split-seconds hand and the chronograph hand.

As the saying goes, the devil is in the detail. And never was that truer than when it comes to the chronograph.

New generations

The inaugural Ladies First Chronograph, REF. 7071, remained in production until 2016. In 2018, the REF. 7150/250R took its place, and in contrast to the cushion-shaped case of the REF. 7071, the new model has a round case with a diameter of 38 mm and a bezel set with 72 diamonds. This new design pays tribute to the tradition of old chronographs, particularly its pulsimeter scale on a silvery opaline dial. However,

beneath the box-style sapphire crystal glass beats the same manually wound chronograph movement as the REF. 7071.

Similarly, the first men's chronograph, REF. 5170, with classic architecture that was presented in yellow gold in 2010 and followed by rose gold, white gold, and platinum versions, was redesigned. The new version, REF. 5172G, has a vintage aesthetic, with a fully polished white gold case and round pushers. The dial's tachymeter scale and the sub-dials' railroad-track scales with white numerals stand out crisp and clear against the blue varnished background, while the applied white gold Arabic numerals and the hour and minute hands have a luminescent coating. At its heart, yet again, the CH 29-535 PS leads the dance. And to think that the movement is only ten years old! ♦

Translated by Barbara Caffin

CHR 29-535 PS



REF. 5370P
2015

The 2015 REF. 5370P (left) with a rich black *grand feu* enamel dial – which is alluded to by the inscription at six o'clock (*émail* is French for “enamel”) – is fitted with the caliber CHR 29-535 PS.

This new platinum rattrapante chronograph is the first of Patek Philippe's split-seconds-only chronographs to be fitted on the CH 29-535 PS base caliber. The design of this new timepiece's

dial, case, and crown is reminiscent of 1940s models, and it features classic details such as a tachymeter scale and gold applied Breguet numerals

“We can rework everything, taking a classic approach but constantly devoting our skills and experience to making improvements and subtle corrections”



NEW WORLD VIEW

Toward the end of the eighteenth century, the invention of hot-air balloons enabled a select few to view the world from an entirely new vantage point. But what about the general public? David Rooney investigates

Imagine having never seen the world from above. What if you had never viewed the twists and turns of a river as it winds through the landscape below or witnessed a bird's-eye view of a patchwork of fields, barns, and dwellings scattered with trees and muddy cart tracks. Imagine if all maps were approximations, and nobody had observed the panoramic view of the land beneath themselves through a layer of wispy clouds. Before 1783, the world from above was unknown. That year, everything changed as the first balloonists took to the skies.

Seeing the landscape unfold during one of the early flights was a profoundly moving and sublime experience. Having traveled over Berlin by air in 1817, the German nobleman Prince Pückler-Muskau wrote, "No imagination can paint any thing more beautiful than the magnificent scene now disclosed to our enraptured senses. The multitude of human beings, the houses, the squares and streets, the highest towers gradually diminishing; while the deafening tumult became a gentle murmur, and finally melted into a death-like silence."

Few people had the opportunity to go up in a balloon to experience this awesome vision firsthand. So, how did the rest of us come to explore aerial landscapes? Bird's-eye views of cities, offered as prints, had long been conjured from the imaginations of artists, but these were tightly constrained in frames or bound into heavy volumes – hardly an immersive sensory experience.

However, in the space of just a couple of years, two new developments offered the public remarkable new



ways to experience the world the way birds saw it. In 1785, one of Britain's first balloonists, Thomas Baldwin, took a flight over Chester, northwest England, ascending from the grounds of Chester Castle and landing on a patch of open ground known as Rixton Moss, around 20 miles away.

On his return to earth, Baldwin did what several balloonists had done before him and published an account of his voyage. But he added a new twist to his 396-page publication entitled *Airopaidia: The Narrative*

Two color plates from Thomas Baldwin's 1786 publication, *Airopaidia*, an account of his voyage over Chester, England. "A balloon prospect from above the clouds" (left) captures a small section of the route, while "A view from the balloon at its greatest elevation" (right) details a wider vista. These images were the first real aerial views ever published

It is hard for a twenty-first-century person to grasp the impact that aerial views have had on human imagination

of a *Balloon Excursion*. Bound within the book were a short series of color plates depicting the route his balloon had taken and the landscape he had sketched from his lofty vantage point. They were the first aerial views ever published, and many more followed.

It is hard for a twenty-first-century person to grasp the impact that aerial views have had on human imagination. We have satellite images on our smartphones of every square mile of every country. When we travel by air, we see the landscape fall away from us as we take off and race toward us as we come in to land. We have absorbed countless aerial photographs of the world in books and magazines.

This intimate aerial familiarity with our landscape is a phenomenon that we can trace back to Baldwin's 1785 flight. His images are remarkable, not so much for the faithfulness of their depiction – he struggled with clouds, for instance – but for the extraordinary sensation of being airborne that he attempted to impart. The historian Lily Ford explains, “The experience he is communicating is as much about the feeling of moving upwards and occupying a vast space as it is about perceiving the world from above.”

Baldwin instructed his readers to place the plates flat on a table or chair and view them directly from above

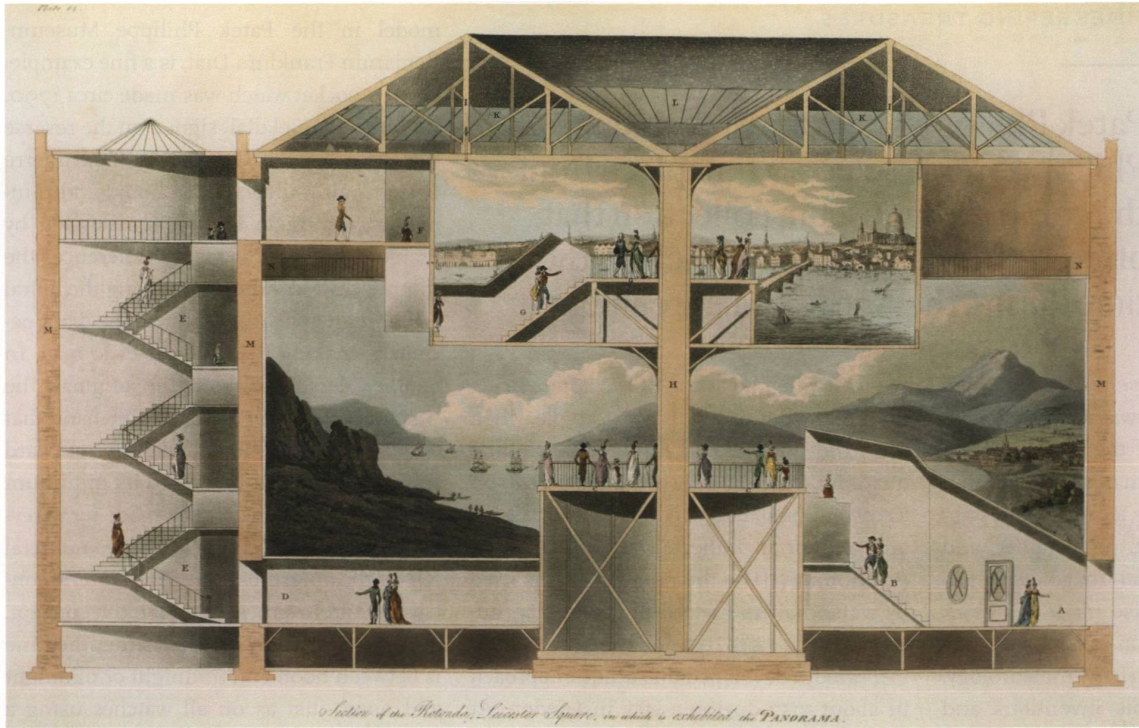
through a rolled-up paper, slowly following the route of his flight so that they could imagine they were in his balloon as it had moved gently over the landscape.

This radically active new mode of experiencing the world took a remarkable turn two years after Baldwin's pioneering flight. In 1787, the English portrait painter Robert Barker patented what came to be known as the panorama. The invention was a cavernous cylindrical building in which a 360-degree wraparound illuminated canvas surrounded the viewer with a seamless city or landscape image, painted as if from a high vantage point.

Barker's trick was to place his visitors on an elevated platform at the center of the space. Where previously bird's-eye prints on the wall or in books were designed to be comprehended passively without moving the head, Barker's panorama needed visitors to move around in order to see the whole landscape. His first panorama – a view of Edinburgh from Calton Hill – was displayed in that city and later in Glasgow and London.

Then, in winter 1790 he sent his son Henry to the roof of a sugar mill near Blackfriars Bridge, London, to sketch the view. Barker later painted the scene onto canvas and displayed it in a purpose-built rotunda in Leicester Square. The artist Benjamin West called Barker's work “the greatest improvement to the art





Left: a cross section of the rotunda where Robert Barker exhibited his groundbreaking panoramas in Leicester Square. The building offered space for one large piece – here, a view from the hills around Edinburgh – and a smaller one above it (London from the Thames is shown). Staircases led to different viewing platforms, offering a variety of perspectives. Below: an 1813 panorama of Constantinople by Barker's son Henry

of painting that has ever yet been discovered.” Like Baldwin’s balloon prints, Barker’s virtual reality panoramas let the public explore landscapes in a new and immersive manner. As Lily Ford argues, “with the viewer at the centre of the view, the frame was dissolved.”

Many panorama visitors were so overwhelmed by the experience that they became dizzy. Some were physically sick and had to leave. It is hardly surprising: for the first time, viewers were part of the landscape itself.

Today, we may think of balloons and panoramas as gimmicks or popular entertainment. But these two developments from the 1780s radically reshaped our imagination, our relationship with our surroundings, and the way we consume images. They helped train us to explore our world in new ways, and their effects can still be felt today in everything from cinematography to environmental activism. Baldwin and Barker helped us understand that the world from above is our world. ♦

PHOTOGRAPHS: COURTESY OF THE SMITHSONIAN LIBRARIES, WASHINGTON, D. C.
S.P. LOHIA COLLECTION / ANTIQUARIAN PHOTOGRAPHER





TIMEKEEPING TREASURES

Patek Philippe's honorary president, Philippe Stern, selects a timepiece from the company's museum collection that offered an innovative way of telling the time during the Age of Enlightenment

Benjamin Franklin, whose portrait features on hundred-dollar bills, was not only one of the founding fathers of the United States and an eminent statesman and diplomat; he was also renowned as a printer and publisher, writer, journalist, philosopher, and moralist. A polymath and image of the Enlightenment man, he also made his mark in the scientific world, in fields as diverse as natural science, electricity, meteorology, and physics. Among his inventions and discoveries are the lightning rod and the Franklin stove (a controlled-combustion wood-burning heater). But he also turned his attention to horology, as can be seen in a pocket watch exhibited at the Patek Philippe Museum. It appears in the company of some other rare pieces, all of which are remarkable for the originality of their dials.

Franklin's stripped-down design was innovative – it has only three wheels and the hours and minutes are displayed by a single central hand. Its dial is divided into four 90-degree quadrants, each corresponding to the measurement of one hour and spanned by an outer minute scale marked zero to 60. The 12 Roman hour numerals are set on a three-coil spiral extending from the dial center to the periphery. The center hand completes one revolution of the dial every four hours (three revolutions in 12 hours), indicating simultaneously the hour (Roman numerals on the spiral) and the minute (Arabic numerals on the periphery). This ingenious device presents only one drawback: to read the time correctly,

the user must be aware of the approximate hour of the day or night. For example, when the hand points to 30 minutes in the first quadrant (halfway between one and two on a conventional dial), it could be A.M. or P.M., and the hour indicated might be eight (VIII), four (IIII – the notation that is used by watchmakers instead of the Roman numeral IV) or 12 (XII) midday or midnight.

Franklin developed this unique approach in about 1757 during a stay in London. At that time, the city was the major metropolitan center for colonies across the Atlantic and a flourishing hub of horology. The Scottish astronomer James Ferguson, whom Franklin met at the Royal Society, improved on the device and presented the idea to the public in his 1773 book *Select Mechanical Exercises*. The design enjoyed some success in continental Europe and was copied by several French and German makers, as well as by others in the Swiss Neuchâtel mountains where watchmaking was booming. The

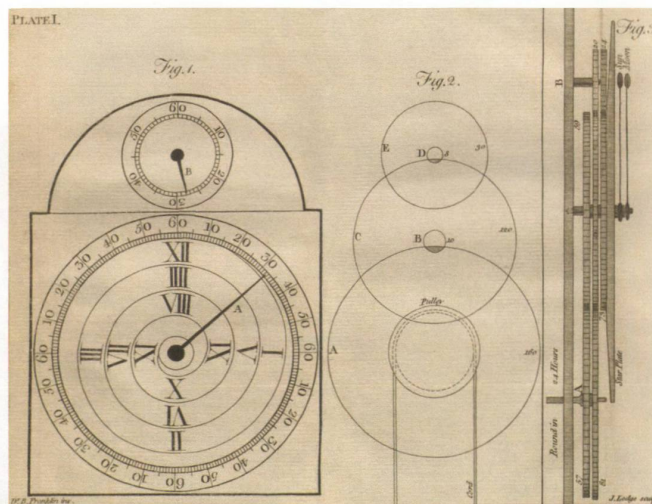
model in the Patek Philippe Museum, Benjamin Franklin's Dial, is a fine example.

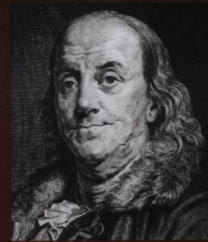
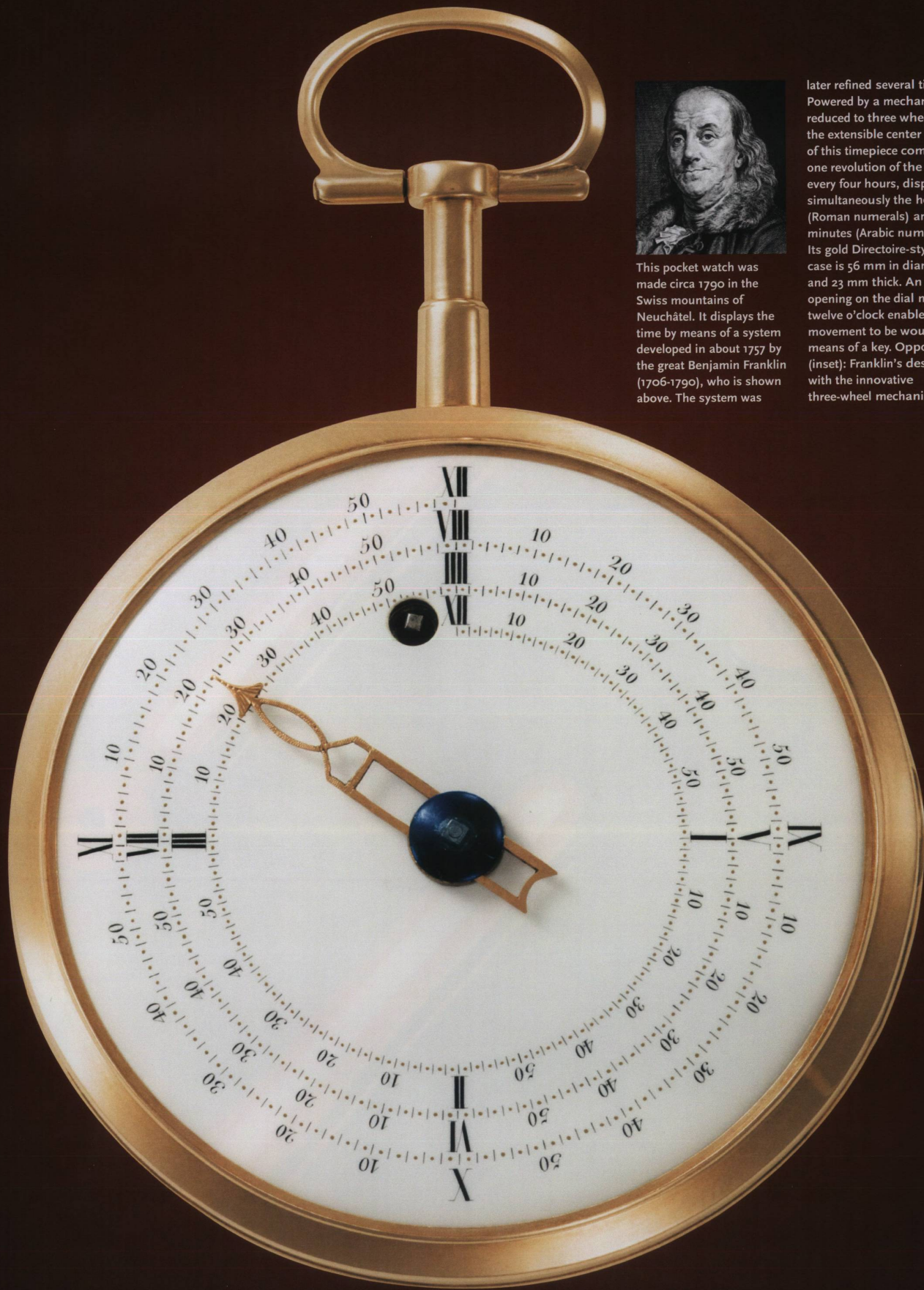
This pocket watch was made circa 1790. Its white enamel dial, signed on the reverse side by a "Js P DCommun" (Jonas-Pierre Ducommun), displays the hours and minutes according to the system devised by Franklin but with a visual difference: the minute scale continues all along the spiral rather than appearing only on the dial's periphery, making the time easier to read. In another departure from the original, the watch is fitted with an extensible hand that lengthens as it follows the spiral outward from the center. It reverts to its minimum length instantly once it has made three revolutions of the dial and has reached numeral XII on the outermost coil. This cleverly contrived hand improves the Franklin concept. The user need only know whether the time is between noon and midnight or midnight and noon, just as on all watches using a 12-hour scale. This is not the only model to have this useful modification; it can also be found on German longcase clocks built by the clockmaker Peter Kinzing (1745-1816).

As well as a three-wheel mechanism and extensible hand, the watch has a movement that features a fusee-and-chain device regulating the driving force transmitted to the train, and a verge escapement (or crown-wheel escapement) equipped with a balance spring. The movement is housed in a gold Directoire-style case with domed glass.

Franklin's design never really took off. Similarly to the French revolutionaries' decimal time system, it proved unable to overthrow the traditional method of telling the time by means of a circle of 12 hours. Nevertheless, this watch is dear to me and remains a noble example of the creativity of watchmakers throughout the centuries, particularly during the Enlightenment. It testifies to the transfer of ideas that has never ceased to enrich the watchmaking art, both in continental Europe and across the seas. ♦

Translated by Barbara Caffin





This pocket watch was made circa 1790 in the Swiss mountains of Neuchâtel. It displays the time by means of a system developed in about 1757 by the great Benjamin Franklin (1706-1790), who is shown above. The system was

later refined several times. Powered by a mechanism reduced to three wheels, the extensible center hand of this timepiece completes one revolution of the dial every four hours, displaying simultaneously the hour (Roman numerals) and the minutes (Arabic numerals). Its gold Directoire-style case is 56 mm in diameter and 23 mm thick. An opening on the dial near twelve o'clock enables the movement to be wound by means of a key. Opposite (inset): Franklin's design with the innovative three-wheel mechanism



STORY Nicholas Foulkes

PHOTOGRAPHS Benoît Jeannot

Sword, arrow, lance, baton, javelin; apple, pear, leaf, fleur-de-lys; dauphine, Louis XV, Louis XVI: the nomenclature of watch hands has a polyglot heritage, borrowing from the vocabulary of weaponry, botany, and French monarchy. These are just three fields among many more – cars (Mercedes), ecclesiastical architecture (cathedral), meteorological phenomena (snowflake), for example – that make their contribution to the lexicon of this most varied of horological components.

The hands of a watch can make or break the look, and as such one may find numerous permutations in their design and appearance. The 180 employees at Fiedler SA have been painstakingly crafting these diminutive components for Patek

Philippe timepieces for more than 50 years. There, beyond the aesthetics, lies a string of complex manufacturing processes that combine high tech and traditional savoir faire. These finished baton hands, left, have a Superluminova® coating

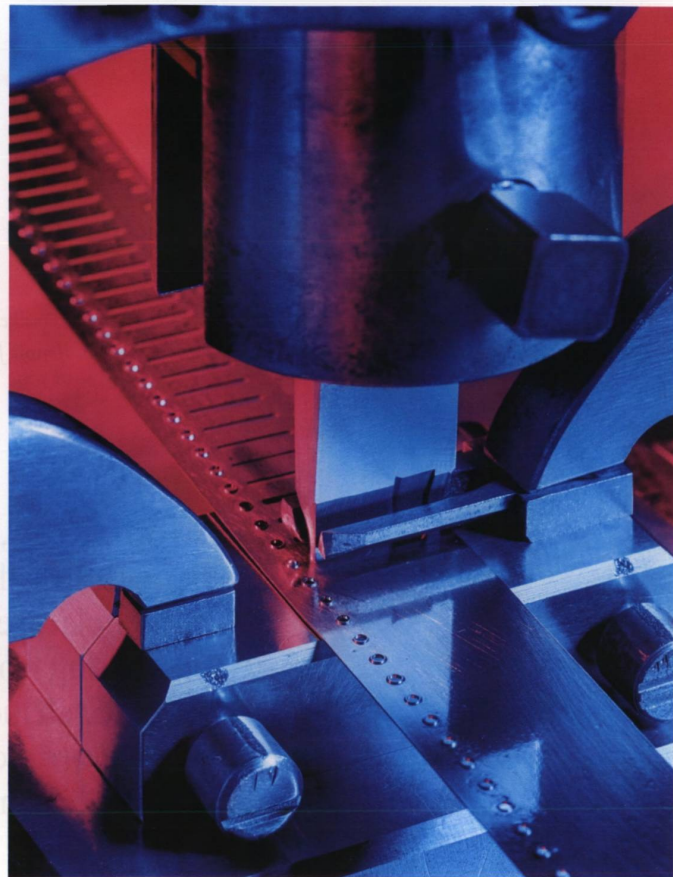
I'd recommend caution, however, before ransacking the medicine cupboard and using the word "syringe" to describe the hands on the Perpetual Calendar REF. 5320G: they are more properly known as *bâton Geos à pointe*. Isabelle Chillier, who is the fourth generation of her family to run the historic Geneva-based hand manufacturer Fiedler SA, is understandably particular on these matters. The large sweep-seconds hand of the 5320G is known as a *grande seconde à contrepoids*, she explains, while the date is indicated by a *feuille à contrepoids*.

The importance of a thing can often be gauged by how completely it is taken for granted (we breathe unthinkingly). With the hands of a watch, we may express an aesthetic opinion, but otherwise their journey around the dial is something that we take for granted. Yet without these tiny slivers of metal, many of a size and weight that make a pine needle seem gargantuan, all of the beautiful finishing, micro-engineering, and cunningly conceived complications are redundant. Wheels, pinions, and springs

would interact, performing their complex, beautiful ballet with no visible effect; time would remain untold.

The constant, silent, visual indication of time was one of the foundations on which the Renaissance and the subsequent Age of Exploration were built; the hands of public clocks regulated the lives of city dwellers until portable timepieces made the hour of the day a personal matter. As timekeeping technology advanced, so did the means to display time. The English clockmaker Daniel Quare introduced the minute hand into regular use in the 1690s, once clocks and watches were precise enough to require one.

Founded in 1848, Fiedler SA may not be as old as the minute hand, but it is the oldest maker of watch hands still in existence in Switzerland, older than many of the brands that it has supplied over generations and only nine years younger than Patek Philippe, for which it has manufactured hands for more than 50 years. Fiedler is among the industrial aristocracy of Swiss horology, and if the manufacturer goes about



its business in a thoroughly understated Genevan manner, that is because it has a quiet confidence and pride in its work that has developed over its long history.

The hand may be small, but the manufacturing culture behind it is substantial: much more than a component, it is the physical manifestation of a discrete culture of horological savoir faire concerned in equal measure with the technical and aesthetic aspects of watchmaking. It has its own language, its own customs, and its own procedures (some hands require between 30 and 40 manufacturing steps). If not a closed world, it is a little-known one that was opened for the Patek Philippe magazine.

Microscopic scale, tiny tolerances, and unforgiving quality control that generates at least as many rejects as it does successes are what define Fiedler's métier. A family-owned and -operated firm rather than part of a large conglomerate, it might furnish its bigger customers with batches of hands counted in the thousands, but it is also happy to work on an order of just 10 hands (though

anything from 60 to 100 hands will need to be made to be sure of having 10 perfect ones). Producing these hands is not a swift process: depending on the intricacy of a design, it can take Fiedler four months of preparation, including the manufacture of bespoke tools, before production begins.

"Much of the complexity of making hands is due to their size. They are tiny and difficult to manipulate," explains Chillier, the firm's managing director. "As the industry becomes more and more developed, we need to be more and more precise in order to produce identical pieces. For example, hands with sanded surfaces are sanded all together, not piece by piece." Acceptance or rejection can hang on "a tiny variation of color or nuance of sanding," she adds.

The making of hands begins with dumb dull metal, often a strip of brass, but gold is commonly used too (in fact, Patek Philippe uses only gold unless another metal is required for technical reasons). A 12-inch strip of metal can yield 100 watch hands, each stamped out by a shaped blade in a process

known as *découpage*, using a machine called a *balancier* that looks like a duck press. Skeletonized or Superluminova® versions require a further pass through the press.

At this early stage in the process, hands are divided into sorts defined by the way in which the *cannon* – the tube that connects the head of the hand to the pinion responsible for moving it around the dial – is formed. The cannon can be stamped on the raw metal strip before *découpage*, either using the standard or complex process. Other hands (requiring a longer tube or one of a narrower dimension) already have a hole into which a separate cannon is later riveted. Patek Philippe hands have cannons created one by one using the complex stamping technique, an operation of surgical precision, necessary due to the requirements of the Patek Philippe Seal, which states that the cannon must have a thicker wall than riveting or standard stamping can create.

Hands have to meet minute tolerances; they are seated on the cannon pinion of a watch using light pressure and they only

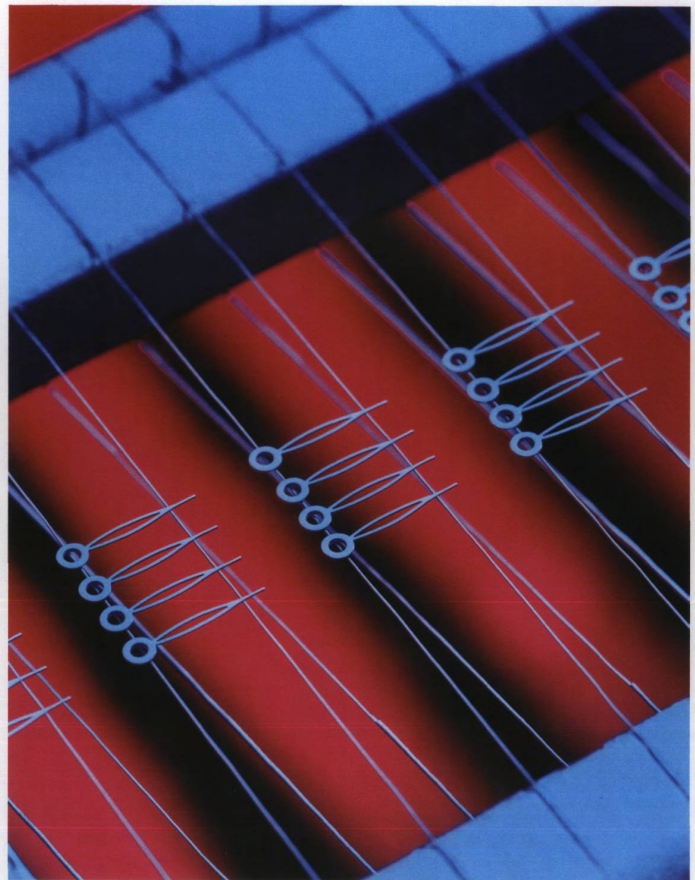
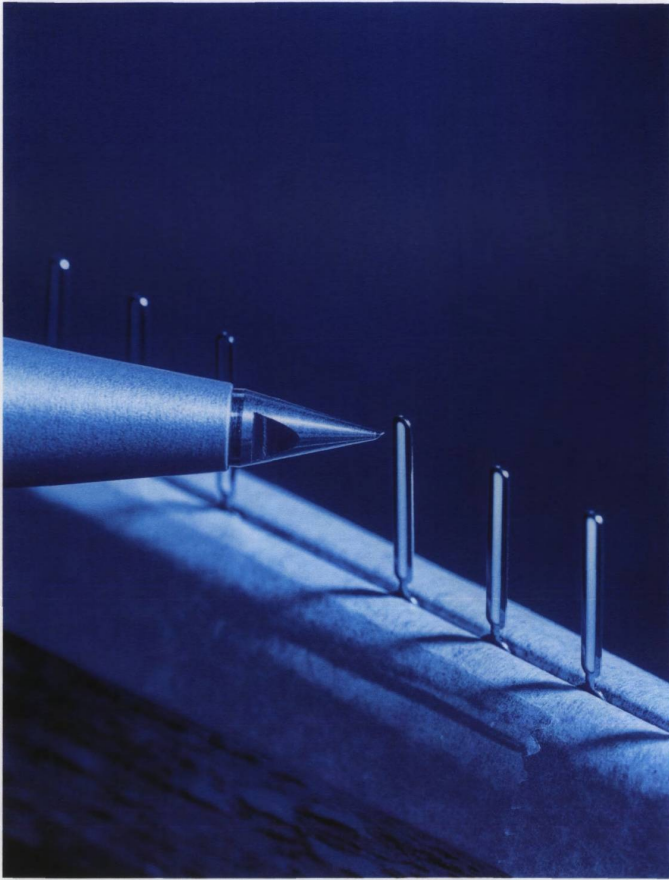
Opposite: watch hands begin with a metal strip that has holes punched into it. These holes are pressed outward to create a lip, which is known as the cannon (left). The strips then pass through another press (with stamps specifically created for every single type of hand)

in a process called *découpage*. The cannon holes are used as a guide for the machine to punch out rows of hands (right). Below: once stamped and diamond-cut, the hands are glued to a support and polished. Many finishes are available such as faceted, curved, smooth, or matte



This page: a striking tool creates a curved profile on certain hands in a process known as *frappe*. Opposite: a Superluminova® solution is applied to hands that require a luminous finish (left), and color is painted on manually (right)





stay in place if the fit is perfect, the weight correct, and the balance between their neck, body, tip, and any counterpoise is finely judged. But they also have an aesthetic function. As well as being so varied in profile as to be referred to as a Bourbon king or a piece of fruit, hands can be flat, *bombé*, or faceted, and they can be brushed or polished. One face of a faceted hand can be brushed while the other is worked in a diamond machine and polished, or a third facet can be included to vary and enhance the play of light.

The most remarkable change takes place during diamond finishing. Hands are placed in concentric circles on a revolving disk over which a diamond tool passes. As this tool performs its transformative magic, the hands appear to glow, as if illuminated from within; no longer metal components, they become tiny incandescent flecks, miniature fireworks, pirouetting on a turntable.

A small number of hands are shaped by a stamping process called *frappe*, in which the force of one metric ton is brought down

Watch hands are susceptible to bruises and scratches, their bodies liable to deformation in an instant's distraction

on them. Each hand is first cleaned and minutely inspected under a loupe since the merest mote of dust leaves an impression.

Next, hands are washed, polished, and given their finish, whether painted, galvanized, or treated with Superluminova®. Paint is applied in a fine mist inside a minute paint shop with operating-room standards of air filtration. Then hands are inspected with a loupe. For luminous ones, a fresh batch of glue and light-emitting pigment is mixed each day to create a paste of the appropriate viscosity and adhesiveness.

Even packaging is an art; hands are slid into slotted cards or, in the case of Patek Philippe, individual specially shaped plastic cocoons. This final procedure is performed

as deftly as the preceding operations. The hands are now at their most vulnerable, their finished surfaces susceptible to bruises and scratches from over-enthusiastically wielded tweezers, and their bodies liable to deformation in an instant's distraction.

Rather like Britain's Grand National, notorious for the number of horses that fall at its fences, so the process of making a hand is an assault course where many do not make it to the finish. The forensic expertise of Fiedler's craftspeople testifies to the fact that even in the most commonplace of horological components it is possible to descry the miraculous, Olympic level of detail that renders watchmaking so engrossing and rewarding for the connoisseur. ♦



STORY *Tim Willis*

PHOTOGRAPHS *Anastasia Taylor-Lind*

Your carriage awaits

Deep in the English countryside, an astonishing equestrian stud trains horses for film and period drama, and supplies the phaetons, carriages, and gigs that their charges pull. Each historic contraption is restored with love; for the Devil's Horsemen of Wychwood Stud, nothing's done on the hoof

Within its filigreed body, this sumptuous royal landau boasts an interior upholstered in rich, cocooning velvet. Its articulated hoods can be folded down to reveal the regal travelers, that is, should those travelers feel like being revealed





If you were making a European period movie and wanted extras and stunt doubles for a cavalry charge, you might check out the Devil's Horsemen of Wychwood Stud, an equestrian outfit based on 120 green acres of Buckinghamshire, about 45 miles northwest of London's big film studios. If you wanted to recreate a nineteenth-century city scene, with fleets of phaetons and omnibuses, dray wagons and delivery carts, you would almost definitely be calling on this extraordinary family business.

But then, you'd do the same if you needed a regiment of ancient Egyptian chariots, as the producers of *Exodus* did, or a ceremonial parade of royal coaches and landaus, as featured in Netflix's *The Crown*. With more than six hundred original, restored, and replica horse-drawn vehicles housed in their barns, of which only half are new builds, the proprietors boast one of the largest carriage collections in the world, one that will be bigger by the time you read this. According to Camilla Naprous, who now runs the day-to-day operations with her brother Daniel, "My father can't stop buying them."

She's talking about the legendary Gerard Naprous, a French country boy with a love of horses, who arrived in Britain in the early 1970s as a trick rider and stayed to pursue a dream. Back then, he had only a bridle and saddle to his name. Now, he spends

Above: a replica of the Irish State Coach. The original of this four-horse-drawn carriage is in fact used by the British royal family; first occupied by Queen Victoria, it traditionally takes the monarch from Buckingham Palace to Westminster for the state opening of Parliament

most of his time at his second property in Normandy, making forays across Europe to find a brougham here, a Romany *vardo* wagon there. Britain was an important center of the carriage-building industry and has long been a hunting ground for enthusiasts. But, says Daniel, "in the eastern nations, where horsepower survived much longer, it's easier to find pieces that we can keep in use. Every so often, a low-loader comes down the lane with another surprise from Dad."

It might be a phaeton high flyer, the open-top sports car of its day, that also needs a wheel changed – two hundred years later, no easy task. For such a job, the Naprous siblings call in an outside wheelwright, who'll use elm for the hub or "nave" (because its interwoven grain won't crack under the axle's pressure), with sturdy oak for the spokes, and bendable ash for the "felloes," the dove-tailed pieces that comprise the wheel's edge. He'll shrink a red-hot iron rim onto this and ensure the spokes are slightly convex to the hub to compensate for swaying.

But this is one of the very few skills a Devil's Horseman doesn't possess. Gerard's children have been immersed in their father's obsession since they could crawl, and, with their core team of 12, many of them children of Gerard's old comrades, they can do



Above: the serried ranks of tools needed by the Wychwood workshop, which is never still. Here: a leather harness strap is finished on a sewing machine. It needs a soft side that's comfortable for the horse and a shiny side that is shrink-resistant

This page: an elegant and rare C-spring landau, finished in pale yellow and black. The coach sits on a perch with flamboyant C-shaped springs curving up, holding it suspended so that the passenger, always wealthy, was comfortable, even on long journeys. The weight of the

springs meant four horses were needed to pull what seems a flimsy carriage. It has black leather hoods and an interior of buttoned tan leather and cream lace as well as extremely fine carving throughout. Opposite: Gerard Naprous oversees the construction of a replica carriage





anything from casting elliptical springs in their on-site furnace to riveting a gun carriage; from cutting a new hood for a barouche that has seen better days to stripping a new leather harness strap so that it will be both comfortable for the horse (the soft side) and shrink-resistant (the shiny side glued to leather of a different grain).

Sometimes the crew does bespoke work – carving a new swan’s head, say, to top the runner of a Russian sleigh. Sometimes they cannibalize one vehicle for the sake of another, so, if a hansom in good condition was missing a side lamp and they could find the appropriate “used spare part” on a dilapidated example, off it would come. “We’re a business, everything has to earn its keep,” says Daniel. Also, Camilla explains, “we don’t want museum pieces, we want carriages that look as they did when they were driven every day, showing wear and tear. Otherwise, they’d stand out too much in a film.”

That’s why, if they have to replace panels on a carriage, they’ll pressure-wash the wood so its grain matches the aged originals. On

“We don’t want museum pieces, we want carriages that look as they did when they were driven every day”

location, if a local authority insists its historic cobbles are protected, the team will fit thin rubber tires on the iron-rimmed wheels (a practice started a century ago). They even indulge modern filmmakers’ penchant for dark paintwork. “Back in the day,” says Daniel, “carriages were often a lot more garish.”

In a sense, then, the Devil’s Horsemen’s handiwork is closer to maintenance than restoration; it’s almost as if the age of hansoms and curricles never passed. Until a few decades ago, cars were treated the same way; every now and then, you’d change the spark plugs or patch up rust to keep your motor on the road. In fact, says Camilla, the comparison between their wooden transports and modern automobiles works on many different levels.

While our ancestors would keep endless fields full of horses, now we have factory car lots. The coaching inn has been replaced by the service station, the village farrier by the local garage, and, continues Camilla, “there was as much variety and specialization as you’d find today.” With the invention of the railroad, and then



the combustion engine, many redundant vehicles were scrapped, burned, or even buried. (In the collection is a gig that a British farmer interred rather than hand over to the war-time government on a scrap-metal drive.) But a quick glance around the survivors housed in the biggest barn here proves her point.

Here is a Gothic hearse; there a fire engine from Cheshire, still with the detachable pump handles clipped tidily to its side. A tipping cart, forebear of the garbage truck, jostles for space with the skeleton of an ancient farm wagon. ("So long as the chassis is intact, we can really restore anything.") In one corner huddles a fleet of Swiss Army canteen wagons, ingeniously kitted out with everything from meat mincers to salt shakers, all strapped into their own little compartments. "This technology had five thousand years to develop," says Daniel. "Not least from yoked oxen to harnessed horses, with hybrids all along the way."

Walking through the workshops and attics of this sprawling rural complex, Daniel demonstrates the variety of assorted machines that his family has assembled, many of them cast-iron dinosaurs from factories in the north of England. Though manufacturing has largely died out in the old industrial heartlands of

The splendid delivery van above is a restored original model. Opposite: Daniel Naprous, who represents Great Britain at the Royal Windsor Horse Show, puts his four-in-hand team through its paces (top); and Gerard fits a carriage lamp to a meticulously built replica (bottom)

Britain, at least its tools live on, such as the groaning static jigsaws that can cut anything from oak to felt and are usually operated by "two craftsmen from Poland, where they still use them."

To continue their work, says Camilla, they need to keep the old skills alive. "When my father was growing up, horse transportation was still quite common, and his generation could learn from people who actually had experience of coach making. Now we're getting that knowledge once removed." On the other hand, there's nothing like building a replica to teach you how it used to be done, says Daniel. "The form of all these vehicles is dictated by their function. In copying a piece, you come to learn why it was made as it was, and then you can apply that knowledge to the restoration work."

But it's time he took his leave. For relaxation, Daniel works with – *quelle surprise* – horses and carriages, and right now he needs to practice for the International Equestrian Federation's four-in-hand championships. As he comes trotting out of the yard in a brand-spanking-new lightweight sporting model – naturally, made on-site – he's living confirmation of something Camilla cheerfully admits as she waves him off, "What really powers this venture is passion, not profit." ♦







STORY *Robin Swithinbank*

Win, lose, or draw?

The genius concept of Gondolo & Labouriau's watch lotteries helped to raise Patek Philippe's profile in Latin America, but the initiative was not without its drawbacks as new archive material illustrates...

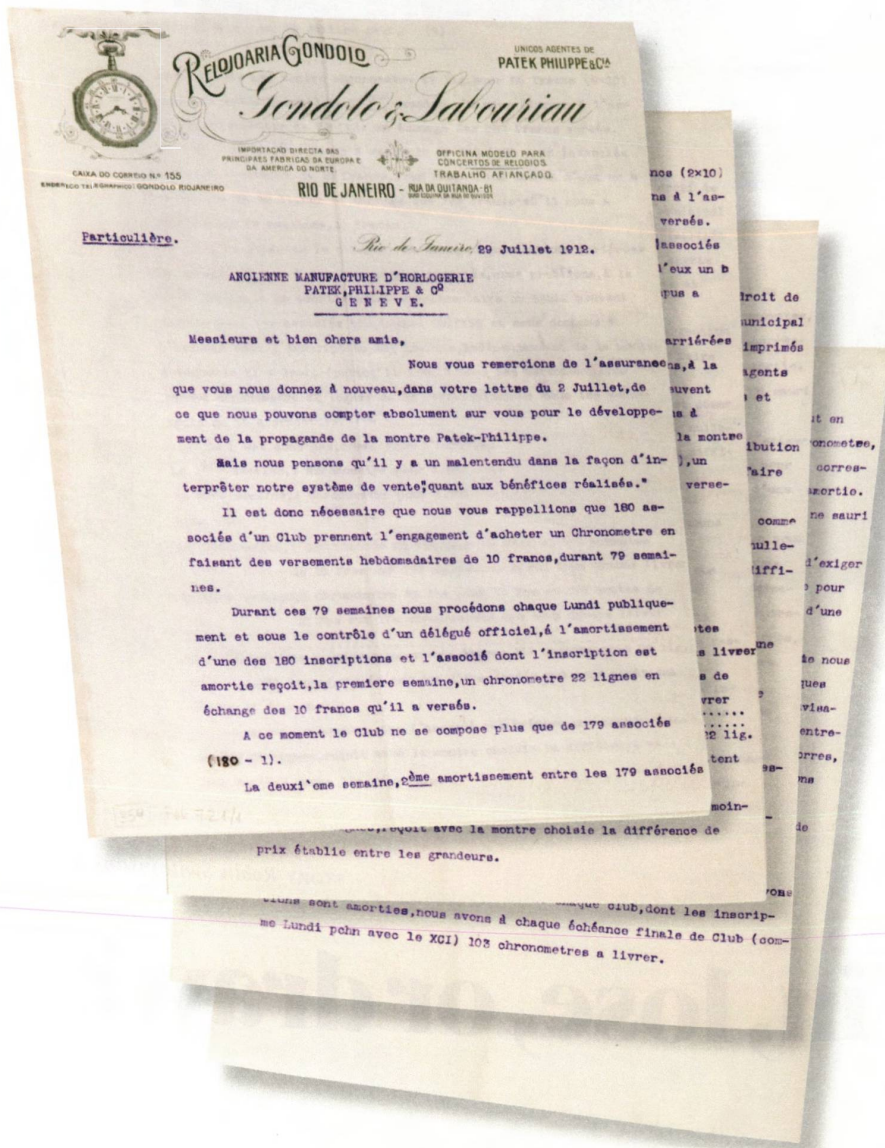
Given its position as the most powerful name in haute horlogerie, it's hard to imagine Patek Philippe on the verge of bankruptcy. And yet an extraordinary story shows that a little under one hundred years ago the firm was almost brought to ruin by the collapse of one retailer.

The outline story of the Gondolo clubs, which were operated by the Brazilian retailer Gondolo & Labouriau in the early part of the twentieth century, is reasonably well known, but letters recently unearthed during the continuing study of Patek Philippe's vast archive cast new light on it. One reveals a fascinating and previously unrecorded club dynamic; another illustrates

the desperate scenario faced by Patek when this pivotal retail partnership was left on a precipice.

The clubs were an ingenious sales and marketing ruse. The idea was that 180 members entered a lottery, whereby for 79 weeks they committed to paying an installment in Brazilian réis equal to 10 Swiss francs per week toward a 790 Swiss franc watch. The watches were made to detailed specifications, featuring the "mustache" escapement with its S-shaped center-wheel bridge, a design now prized by collectors.

Every week, one member would be excused the remainder of the watch's cost if his allocated number



Opening spread: a “Gondolo gang” picnic, early 1900s. Left: the letter sent from Paulo Labouriau, dated July 29, 1912. Among other details, he suggests a new incentive to keep members committed to paying their weekly installments into

the “Plano de Clube Patek Philippe,” as the lottery system was known. The last person drawn at week 79 would be offered a second watch or the option of a full reimbursement for the money he had paid for his Chronometro Gondolo

took a minority shareholding in the Geneva company. The retailer would go on to account for almost one-third of Patek’s total production, some 22,000 watches, during the 60-year partnership. So successful was the business that in Brazil the word “Patek” came to refer to any watch, regardless of its provenance.

What has only now become clear is that Gondolo & Labouriau was not afraid to evolve the lottery. A letter sent to Patek Philippe by Paulo Labouriau on July 29, 1912, details a clever new incentive: the winner of the last of the 79 draws, a “79th lucky participant,” would be given the option of either full reimbursement of his 790 Swiss francs or a second watch. As the so-called rubber boom of the late nineteenth century waned, Brazil’s economy had become increasingly volatile. The lottery bonus was designed to keep punters invested throughout the 79-week duration and to limit the jeopardy that economic uncertainty created.

For years, this system seems to have been largely successful. Back in Geneva, ledgers filled with minutes from board meetings reveal that from time to time tensions rose as payments from Brazil were delayed, although frequently any angst dissipated almost as quickly as it developed. Generally the tone of communication between manufacturer and retailer was warm.

But the relationship was not to last. By the early 1930s, Gondolo & Labouriau was struggling to meet its commitments and began sending letters to Patek imploring leniency. Recent discoveries show that on April 17, 1931, Labouriau wrote to his “cher ami,” the Patek Philippe board member Hubert Rouge, confessing his desperation and asking him to “make the sacrifice” of visiting Brazil to see for himself how dire the country’s situation had become.

Labouriau’s letter included two missives. One was a formal note on headed paper that tried to explain why payments had stopped. Many families had left Rio, he wrote, but they might return and kickstart business. His horror at the damage being done to the business relationship is palpable. He emotes that “the termination of our business would be a moral and material disaster” and that Patek’s name “must not disappear from the Brazilian market.”

was drawn. In week one, this meant the price was just 10 Swiss francs, in the second, 20 Swiss francs, and so on. The customers left ineligible for a discount by this process were all obliged to pay the full price, in 79 installments, before receiving a watch.

The scheme was devised in part to bypass Brazil’s gambling ban – its creators argued it wasn’t gambling, as everyone paid at least 10 Swiss francs for their watch, and no one could be said to have lost when ultimately they all bought a watch – but also to arouse interest in the brand by attracting a broader demographic.

It clearly worked. The first club was inaugurated in 1902, by which time Patek Philippe had been supplying watches to Gondolo & Labouriau for 30 years. The clubs even became social networks, where mustachioed members and their families would meet up for picnics.

By some time around 1903, Gondolo & Labouriau had become Patek’s sole retail partner in Brazil. It even

Almost overnight, Patek had to write off inventory sent to Brazil and say goodbye to close to one-third of its global distribution

In a second note, labeled as confidential, Labouriau says he is “confiding in a friend,” and lists further “woes,” including those of a financial dead-end created by the devaluation of the Brazilian real against the Swiss franc and the additional bank fees he now has to pay. He suggests he will buy back the debt using money from the Villa Gondolo property estate – a garden-city complex that he intends to build on a model similar to the clubs. “My dear Rouge, before all else, I am always looking to be held in high regard by honest men such as yourself,” he says, before signing off with “votre affectionné.”

It appears Gondolo & Labouriau never recovered (the Villa Gondolo estate never came to fruition), and it turns out that Patek had already stopped sending watches to Brazil in 1927. But that did little to solve what had become a significant headache for the watchmaker.

Gondolo & Labouriau may have managed the clubs, but it had been protected from the risks. In a further bid to outwit the Brazilian authorities, the retailer had ensured the contract of sale was between club members and Patek. The supplier arrangement also meant that Patek delivered watches to Brazil with payment only made by return, leaving it hopelessly exposed. Gondolo & Labouriau may have run out of cash, but it still had the watches. Patek had neither.

Almost overnight, Patek had to write off inventory sent to Brazil and say goodbye to close to one-third of its global distribution – a potentially catastrophic state of affairs. Given the distance between Rio and Geneva, the company was left with no affordable means of recourse.

Looking back, it’s not hard to see how Patek had gotten itself into the predicament. The numbers stacked up. The firm may have been financing the club discount, but archived accounts show it was making a 30 per cent margin on sales of the 180 watches, even allowing for the fact that some customers walked away with a 790 Swiss franc watch for a fraction of that sum.

The situation, compounded by the global financial crisis, left Patek facing bankruptcy. In 1932, Jean and Charles Henri Stern would invest in the company, a rescue mission that ensured not only its survival but also that the story of the Gondolo clubs would be little more than a curious footnote in Patek Philippe’s history. ♦



Above: this open-face Chronometro Gondolo pocket watch, Movement No. 142 975, with stem winding and setting, dates from 1907. It has a rose gold cuvette that is engraved with “Produced

specially for Gondolo & Labouriau.” The movement features a “mustache” escapement and S-shaped center-wheel bridge, and this example is indicative of the models that Gondolo club members were signed

up to win as part of the Brazilian retailer’s lottery. The dial of a Chronometro Gondolo pocket watch was typically white enamel, sometimes with the owner’s name intricately inscribed at twelve o’clock

PHOTOGRAPHS *Leon Chew*

Formed in blazing heat, demanding dexterity and patience, glass is an unforgiving mistress. One man made it his passion and created a body of work that redefined an art form for the twentieth century. Jean-Luc Olivié explores the legacy of Maurice Marinot

HEART OF GLASS

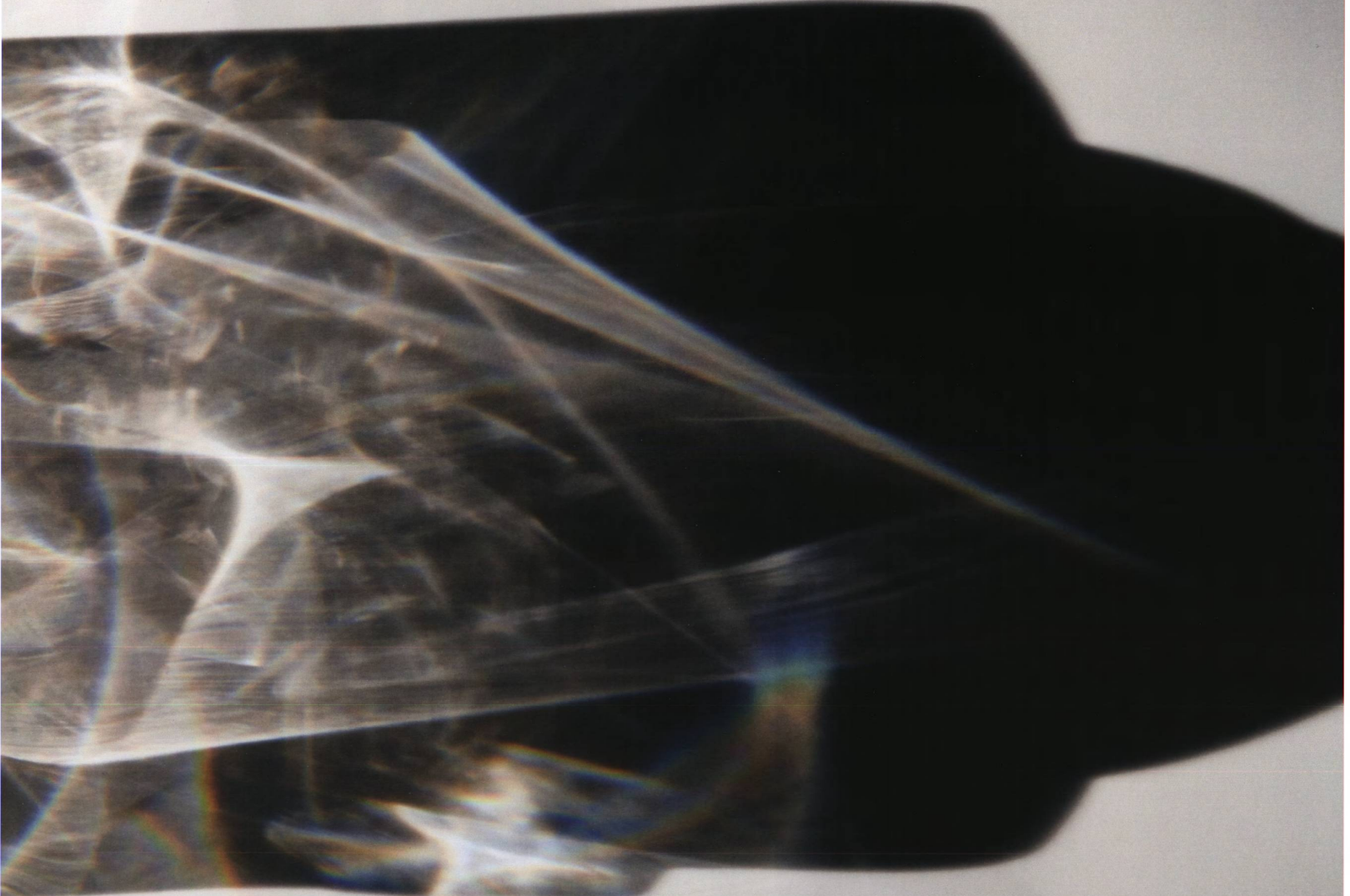


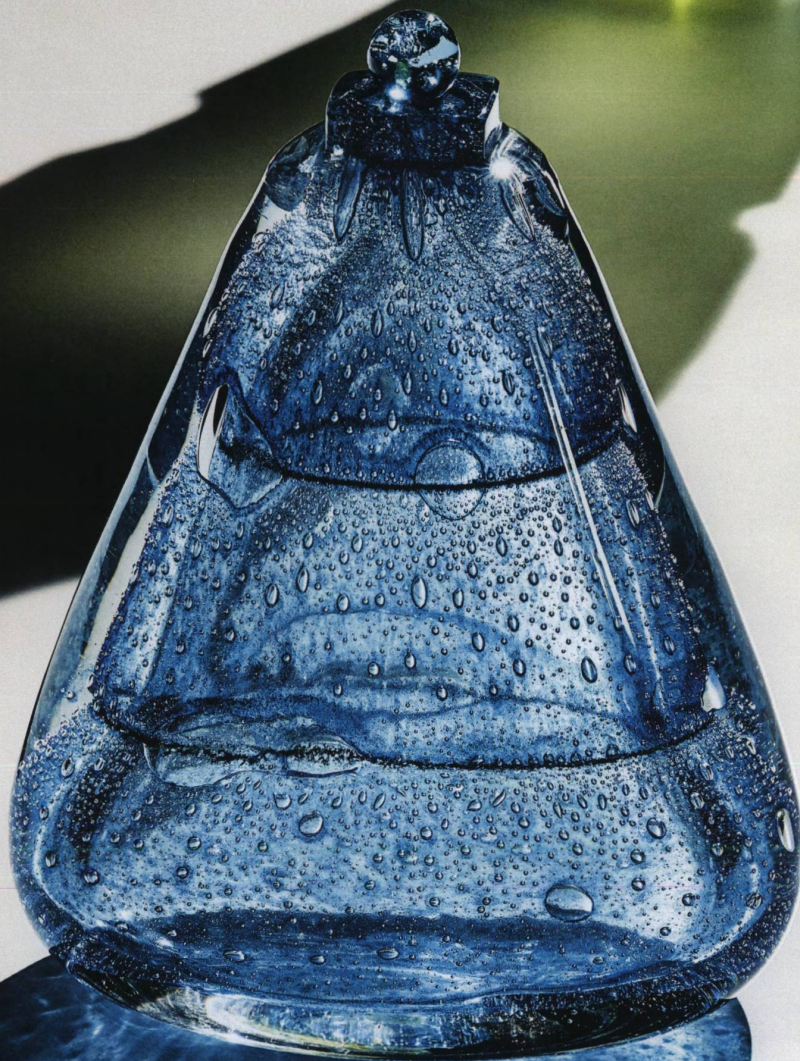
Maurice Marinot, born in 1882 in Troyes, France, is little known today, but he was admired during his lifetime by his peers as well as by connoisseurs throughout Europe and America. He created works in glass that are powerful yet delicate, the result of his mastery of this medium. His sensuous work showed genius and originality as he slowly developed as an artist and craftsman in a demanding battle to tame his dangerous, unpredictable molten material.

After training as a painter at the *École des Beaux-Arts* in Paris, Marinot found an art scene influenced by the Nabis and the Fauves. In fact, he exhibited at the historic Fauves exhibition of 1905. Marinot returned to Troyes and several years later, in 1911, he discovered his vocation when he visited a small glassworks in nearby Bar-sur-Seine that had just been acquired by two of his childhood friends, the brothers Eugène and Gabriel Viard.

Marinot was fascinated by the textural effects and contrasting colors that could be achieved with glass. The medium captivated him, and by 1912 it was his focus, though he never stopped painting and drawing. Eugène and Gabriel gave him his own workbench and tools, and he began designing original pieces, which were made for him at the glassworks, following his drawings. He decorated the pieces with enamel paint, and the fresh, modern results soon attracted interest; his first exhibitions were met at once with remarkable critical acclaim.

During World War One, Marinot served in the French army's health service and was sent to Morocco. Like many modernist artists, he was fascinated by the landscape and the vibrant colors. He returned and in 1919, resumed learning the difficult,





This page: a radiant little blue flagon, like a tiny iceberg, fragments almost melting before your eyes. Opposite left: a mossy green vase with a fitted top. With every piece, Marinot stretched the boundaries of what was possible, here etching with acid what could be mistaken for primitive or ancient motifs. As a genuine pioneer, he experimented

tirelessly, inventing new techniques and revolutionizing taste. Opposite right: a bottle (also shown on pages 64 & 65), the interior of which seems to be in motion, a giddy geyser of pink bubbles gushing to the top to be halted by the punctuation of a clear stopper. Marinot trapped this frenzy of bubbles in a sculpture as sensuous as a Rodin masterpiece

often dangerous, art of glassworking from the master craftsmen in Bar-sur-Seine, which would eventually give him full control of his creative process. In the traditional world of glassmaking, where skills were passed from father to son and most craftsmen began as apprentices in their teens, Marinot was something of an exception. Becoming a glassblower in his late thirties makes his confident experimentalism all the more remarkable. In fact, he was able to hone his passion in what amounted to a kind of long-term artist's residency.

As his technique grew, Marinot began using glass containing tiny bubbles, a look called *malfin* or "roughly finished." He'd started to explore the idea of "living glass," moving away from the traditional idea of a

pure, transparent material. He developed a technique of etching on glass with acid, creating surface effects contrasting with the colored enamels. The corrosive treatment produced a matte, irregular texture, enriching the viewer's visual and tactile perception. Marinot adapted the chemical erosion to sculpt glass deep under the surface, the pieces becoming muscular and heavy.

As he learnt to blow glass, he discovered new plastic possibilities in the molten matter and experimented with unusual colors, not tinting the whole piece but inserting color between layers of transparent glass. Around 1922/23, when he started blowing his pieces himself, he tried many different decorative elements inserted in this way between layers. The distribution of the

bubbles tended to be regular, but after a while Marinot introduced areas with oxide and glass powder, colored surfaces cracking and breaking up, free fragments, and ribbons of color with which he drew flourishes and motifs. Each decoration, formed on a hot glass surface, was fixed under a transparent layer; these additions were often repeated, creating levels of perception through the depth of the glass, setting up harmonies or contrasts between the hollow interior bubbles and the layers surrounding them as well as the external form. The last transparent layer might be barely perceptible or very thick, when it created optical peculiarities and the illusion of movement.

Marinot also worked in simpler shapes, as can be seen in his distorted, flattened



bottles and conical bowls. Some of the most arresting were variations on the cylinder, sphere (often in the form of a stopper), cube, or parallelepiped with rounded corners and edges. In this way, Marinot invented a new aesthetic; his heavy glass, as he said, was “fleshy,” bringing out a true organic quality, something not seen before in two thousand years of blown glass.

Marinot’s work was widely exhibited in the 1920s and ’30s. He had the support of one of the best Parisian art galleries of the day, opened by the foundry owner Adrien-Aurélien Hébrard. In Paris, there were shows at the Musée Galliera and the Musée du Luxembourg. Marinot featured at the inaugural Exposition of French Art in the California Palace of the Legion of

Honor, San Francisco, and in the touring International Exhibition of Contemporary Glass and Rugs organized by the American Federation of Arts.

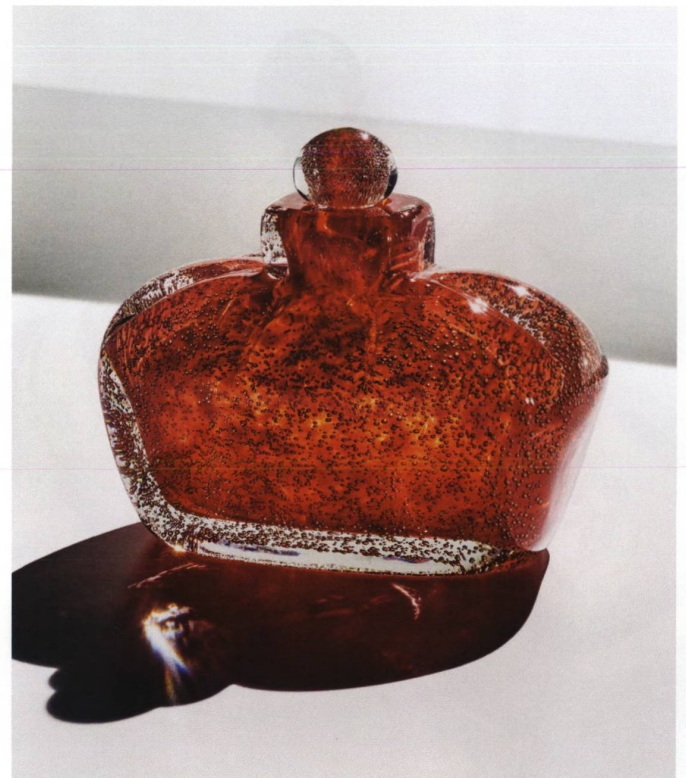
Unsurprisingly, Marinot’s glassware had attracted many devotees. In 1934, the French politician Louis Barthou bequeathed his impressive collection to the Musée des Arts Décoratifs in Paris. Marinot’s work was displayed at international museums, and this, together with critical acclaim, meant his influence percolated to the best designers of luxury glass. After his death in 1960, his daughter Florence made gifts of his work to more than 50 public collections in Europe and the United States.

The Viard glassworks closed before World War Two, and after 25 groundbreaking years

Marinot would never work with glass again. In 1944, during Allied bombing, Marinot’s studio sustained a direct hit that destroyed thousands of drawings and paintings as well as much of his glass.

In 2019, Le Stanze del Vetro in Venice staged a retrospective of his glass works; this year, a new modern art museum in the Loire Valley will show Léon and Martine Cligman’s collection, in which Marinot figures prominently. Meanwhile, there is talk of a new tribute to his art in New York, and the fashion designer Marc Jacobs leads a new generation of admirers who recognize Marinot as a major figure of twentieth-century art. Let’s hope more of his singular pieces find their way to the light. ♦

Translated by Charles Penwarden



Through a glass, darkly, left: the interior glass layer, colored with oxides, would have been allowed to crack and break apart, an extremely difficult process to control. The pulsing, blood-red interior is crafted to hold colorless,

transparent sections. Above: the little bottle Marinot called a “fruit oblong.” Though its core is fiery, its formal shape belies the effort of creation, but Marinot explained it. “To be a glassman,” he said, “is to blow the transparent

stuff close to the blinding furnace...To work in the roasting heat and the smoke, your eyes full of tears, hands dirtied with coal-dust and scorched...”



The winter 2019 auction highlights ranged from an enameled pocket watch to a rare dual-crown rose gold World Time wristwatch, with exceptional prices achieved in Europe, the United States, and Hong Kong. But the season's shining star was a steel grand complication, says Simon de Burton

When Henry Graves Jr.'s 1933 pocket watch supercomplication sold in 2014 for US\$24 million, establishing a world record price for a timepiece at auction, many believed the sum would not be exceeded for a generation. However, at the biennial Only Watch charity auction last November, a one-off example of the Grandmaster Chime made headlines for fetching CHF31 million (US\$31.1 million), with proceeds donated to research into Duchenne muscular dystrophy.

The REF. 6300A (above) is the only steel-cased Grandmaster Chime. It was expected to realize up to CHF3 million,

but the bidding opened at 5 million and quickly soared to 20 million, before the watch was sold during a salesroom battle that lasted for almost 10 minutes.

The unprecedented result prompted applause from the crowd, surprising even Patek Philippe's president, Thierry Stern, who revealed afterward that raising CHF20 million for the charity was as much as he had dared to dream of.

The Grandmaster Chime was introduced in 2014 in celebration of Patek Philippe's 175th anniversary. The most complicated wristwatch ever created by the firm features two dials and 20

complications, including five chiming functions, two of which – the alarm with time strike and the date repeater – are patented world firsts. Other features include indications for day and night, a second time zone, the leap-year cycle, phases of the moon, and the day, date, month, and four-digit year display.

The small number of examples of this watch in existence include the seven-piece limited edition rose gold anniversary model, REF. 5175, followed in 2016 by the first regular collection version, REF. 6300 in white gold, which was replaced in 2019 by another white gold version with new blue dials; each is made from precious metal, therefore making the latest steel version a unique piece. The price it achieved brings the total raised by all of the Patek Philippe watches so far donated to Only Watch charity auctions to more than CHF45 million. Sold at Christie's, Geneva, November 9, 2019.



US\$264,100 | CHF262,500

Patek Philippe's creations represent the ultimate in mechanical works of art, and this unique pocket watch, made in 1984, is no exception. The hinged front of its yellow gold hunter case is adorned with a polychrome miniature enamel painting that depicts a view of the Swiss lakeland village of Brienz. Based on a work by the nineteenth-century Swiss landscape painter Johann-Jacob Wetzel, the image was created by Suzanne Rohrer, the award-winning enameler who has worked exclusively with Patek Philippe since 1967. Sold at Christie's, Geneva, November 11, 2019



US\$8,960,000 | HK\$70,175,000

This rare REF. 2523 was billed as the highest estimated watch ever to have been offered at a Christie's auction, and it lived up handsomely to expectations. Believed to be one of the few of these Patek Philippe dual-crown World Time watches made in rose gold, it was probably the only one to also feature a double-signed dial bearing both the name of the maker and that of the original retailer. Additionally, it was one of the very few models to have been adorned with a blue enamel center disk. Sold at Christie's, Hong Kong, November 27, 2019



US\$4,602,500 | CHF4,575,000

This exquisite yellow gold tonneau-cased minute repeater was manufactured in 1927 for the celebrated collector Henry Graves Jr. It was his first Patek Philippe wristwatch, and it last appeared at auction in 2012 when it crossed the block as part of a collection of 13 previously unseen pieces originally owned by Graves. On that occasion, the watch realized US\$2.9 million. It has since been preserved in the same exceptional condition. A platinum version, also made for Graves, is displayed in the Patek Philippe Museum. Sold at Christie's, Geneva, November 11, 2019



US\$377,300 | CHF375,000

The REF. 3974, launched in 1989, marked Patek Philippe's 150th anniversary. It served as a showcase for the company's technical prowess, embodying many of the complications for which Patek Philippe has long been famous: a perpetual calendar, moon phases, 24-hour indication, and a minute repeater. One of the first of fewer than 150 pieces made, this yellow gold example has a case signed by the maker Jean-Pierre Hagmann and a transparent back that allows the 467-part movement to be viewed. Sold at Christie's, Geneva, November 11, 2019



US\$350,000 | CHF345,100

This beautifully preserved 1983 second-series yellow gold automatic REF. 3450 with perpetual calendar and moon phases is one of fewer than 250. The caseback has a special tab to enable it to be opened for servicing, the tiny window at four o'clock houses a leap-year display in Roman numerals (rather than the Arabic ones of the first series), and the dial carries the signature of Tiffany & Co., the American retailer with which Patek Philippe has been associated for almost 170 years. Sold at Christie's, New York, December 12, 2019



US\$2,300,000 | CHF2,266,000

The REF. 1518 was the first perpetual calendar chronograph wristwatch to be produced in series by any manufacturer. It was a landmark in Patek Philippe's rise to the pinnacle of watchmaking excellence as well as a horological milestone. Launched in 1941, this reference is the ancestor of other important models such as the 2499, the 3970, and the 5270. This is one of the most collectible vintage watches on the market; the combination of a rose gold case and pink dial is particularly rare, with only a dozen of this version known to exist. Sold at Phillips, New York, December 10, 2019



US\$2,024,000 | CHF1,994,000

In the early 1950s, Patek Philippe's REF. 1518 was replaced by the REF. 2499, which remained in production for more than 30 years before giving way to the REF. 3970. The total number of 2499s produced was tiny and divided across different series, each with its own set of traits and nuances. This particular yellow gold second-series model is rare since it is cased by Emile Vichet and features round chronograph pushers, marking the transition from the first series (with square pushers) to its successor. Sold at Phillips, New York, December 10, 2019



US\$62,500 | CHF61,600

This unusual yellow gold "backpack" timepiece is thought to have been a one-off commissioned for presentation to the US diplomat Elbert Eli Farman. He was appointed consul-general to Cairo in 1876 before becoming a tribunal judge and helping to establish Egypt's native courts under British occupation. Made in 1875, the piece was probably a gift to Farman to mark his posting. The case features various adventure motifs, including a rolled blanket, sun hat, and camping tools, and the crown is in the shape of a mess tin. Sold at Christie's, New York, December 12, 2019



US\$573,400 | CHF572,000

This yellow gold REF. 3652 Calatrava minute repeater wristwatch can fairly be described as something of an enigma. It was made in 1985, when the company's minute repeater production had been dormant for decades, and it is based on the case of the REF. 96, a model that was discontinued more than a decade earlier. This is undoubtedly a special-order piece, with an immaculate cream-colored dial that features the additional signature of the retailer Golay Fils & Stahl below the twelve o'clock position. Sold at Phillips, Geneva, November 9, 2019



US\$629,100 | HK\$4,925,000

The REF. 3448's minimal dial design belies its status as a technical milestone. Introduced in the early 1960s, this was the first perpetual calendar wristwatch to feature an automatic movement. Made and sold in 1971, this example is covetable due to the exceptional condition of its white gold case and the rare "tumbling date" days of the month numerals around the moon-phase display (in which the lower half digits are not reversed). The watch had remained in the hands of its original owner since new. Sold at Christie's, Hong Kong, November 27, 2019

Collector's guide



This model with a strap, REF. 3605, has an 18k gold buckle that echoes the elliptical shape of the watchcase. The chain bracelet version, REF. 3605/1, has a gold folding clasp. Both references were launched in 1974

Known as the "Jumbo," the 38 mm by 33 mm REF. 3605 was the first Golden Ellipse with a date indication and a self-winding movement – the ultra-thin caliber 28-255 c. Introduced in the early 1970s, this movement was just 2.55 mm thick

Few watches in the Golden Ellipse collection include a date indication, as most are time-only models. The REF. 3605 is a rare exception

The "Swiss" stamp is flanked by two tiny lower case Greek letters. These symbols were used to indicate that a dial was made with a gold plate and/or gold marks. So-called "Sigma" dials drew attention to a watch's intrinsic value at a time when the price of gold was rapidly rising; Patek Philippe used them from 1971 through the mid-1990s

The dazzling cobalt blue-gold dial was created using a unique process in which cobalt and 24k gold are vaporized and then allowed to condense on the 18k gold dial. Debuted with the Golden Ellipse, the dial appeared on other models in the late 1960s and 1970s

STORY John Reardon | ILLUSTRATION Nabil Nezzar

The Golden Ellipse was launched in 1968 in response to the quartz revolution. Patek Philippe wanted a lasting, instantly recognizable design that could showcase the traditional handcrafts for which it was known – making dials, bracelets, cases, movements, and even jewelry.

Famous for its iconic shape, the Golden Ellipse was inspired by the principles of the golden section, the so-called divine proportion that occurs in nature and is seen everywhere from Greek temples to Gothic cathedrals as well as in the work of artists from Dürer to da Vinci.

Perhaps the most collectible model is the oversized REF. 3605, now known as the "Jumbo Ellipse." The first in the collection to use the automatic caliber 28-255 c with date indication (the same base movement later used in the Nautilus REF. 3700/1), it was made from the beginning of the '70s until the early '80s. The REF. 3605 was the largest model in the family at the time and one of the few to show the date. It was only made in yellow or

white gold but with multiple dial and strap or bracelet variants. However, it is the strap version with a blue-gold dial that has come to be seen as the classic model.

An ad of the era stated, "Everything about a gold Patek Philippe that can be gold, is gold – 18 kt. gold – right down to the dial, the winding crown, the strap buckle, and the spring bars that hold the strap to the watch." Along with such advertising, word of mouth quickly led to Ellipse-mania; among an elite group, wearing this watch signaled that you were "in the know."

The design inspired a line of accessories including cufflinks, lighters, key chains, tie clips, and even disco-era zodiac pendants. But at its core, the collection was about timepieces, and the Golden Ellipse became the canvas for dozens of references, including men's and women's versions. With so much variety and such a distinct design, it is hard to imagine a watch more uniquely Patek Philippe than the Golden Ellipse. ♦



A JOURNEY THROUGH WATCHMAKING HISTORY

Did you know that the Patek Philippe Museum in Geneva runs guided tours for visitors? Discover the delights of the museum, which is home to 2,000+ exhibits that span more than five centuries of watchmaking heritage.

A professional guide will explain the historical significance of the art of watchmaking as you view timepieces from the antique collection dating as far back as the sixteenth century as well as highlights from the company's own extensive body of work, beginning in 1839. Visit patek.com to find out more



Patek Philippe Museum, Rue des Vieux-Grenadiers 7, 1205 Geneva, Switzerland. Tel. +41 22 707 30 10



PATEK PHILIPPE
GENEVE



PATEK PHILIPPE
GENEVE



INTRODUCING THE TWENTY~4 AUTOMATIC
BEGIN YOUR OWN TRADITION

PATEK.COM