

COMPLICATIONS THIN DOWN

— ROBERTA NAAS

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The power of simplicity works wonders. In the world of complicated timepieces, this statement may seem an oxymoron, but in light of the past years of economic upheavals, it actually is the benchmark philosophy that has paved the way to a new genre of complex watches that has taken the world by storm: the seemingly simplified complication. Indeed, whereas in the past, the race was on to fill a timepiece with the most complications and to be the biggest, boldest watch on the market chock-full of with dozens of functions, today's call is for the ultra-thin, ultra-slim, single or double complication and definitely for the most useful functions. Make no mistake, über-complicated watches — those with 400 or more parts in their tiny under-two-inch-diameter space — are not being abandoned by any means, they are just being joined by some more attainably priced, in-demand features. "There is a new implementation of useful functions in the complicated realm," says Richard Mille, independent watchmaker. "Today's collector wants developments that blend technology, mechanics, and performance and that give a sense of the art of watchmaking. They can be classical in function, but more cutting-edge in look and delivery. Especially because more people actually wear the watches they buy today."



AUDEMARS PIGUET MILLENNARY HAND-WOUND MINUTE REPEATER. THE NEW MILLENNARY MINUTE REPEATER COMBINES HOURS, MINUTES, SMALL SECONDS, AND A MINUTE REPEATER WITH A WINDING SYSTEM THAT AUDEMARS PIGUET HAS DEVELOPED SPECIFICALLY FOR ITS HAND-WOUND CALIBER 2910. OVAL TITANIUM CASE WITH OFF-CENTER GOLD DIAL. AP ESCAPEMENT WITH DOUBLE BALANCE SPRING. THREE BARRELS PROVIDE A SEVEN-DAY POWER RESERVE.

ULTRA-SLIM TIMEPIECES

An exceptional demonstration of the basic art of watchmaking comes in the form of the ultra-slim timepiece. Making a large movement is easy, but when one has to build hundreds of mechanical parts and get them to work inside spaces that are so thin that —

when cased — the profile of the watch is less than a mere 6mm thick — it is an amazing work of art and craftsmanship. Hence, it falls into the watchmaking world's complicated feat category. That said, one of the key moves among the finest watchmakers in the world — those who spend years developing the trends — is a return to roots, with ultra-slim movements, often in retro-inspired case shapes.

"Ultra-thin watches are just beginning to find their rightful place in the world of haute horlogerie, of which they are an integral part because of the complexity of developing these very thin movements," says Philippe Leopold Metzger, CEO of Piaget, a master at the ultra-slim caliber since breaking records in the mid-20th century with its ultra-thin pioneering. Piaget's Altiplano watch collection includes the recently released 1200 and 1208P calibers — the thinnest watch and automatic movement in the world. The 1208P caliber measures an amazing 2.35mm thick. Others delving headlong into the ultra-flat movement include Audemars Piguet, IWC, and A. Lange & Söhne. In fact, so many brands are developing their own versions of flat that even Panerai, known for its big, bold look, has released the caliber 999, its version of "thin" at 3.1mm thick. 1/2

BREGUET HORA MUNDI. THE NEW BREGUET CLASSIQUE 5717 HORA MUNDI EXEMPLIFIES THE SPIRIT OF THIS PRESTIGIOUS COLLECTION. IT IS MADE OF PRECIOUS MATERIALS: 18-CARAT RED GOLD OR 950 PLATINUM. BREGUET'S TEAMS NEEDED THREE YEARS TO DESIGN, DEVELOP, AND PERFECT THIS COMPLICATION WATCH. IT IS THE FIRST EXAMPLE OF A MECHANICAL TIMEPIECE WITH AN INSTANT-JUMP TIME-ZONE DISPLAY. THIS FUNCTION ALLOWS THE TRAVELER TO EASILY DISPLAY THE TIME IN TWO PRE-SELECTED TIME ZONES, CHANGING INSTANTLY FROM ONE TO THE OTHER SIMPLY BY PRESSING A BUTTON, WITHOUT DISTURBING THE OPERATION OF THE WATCH.



HARRY WINSTON MIDNIGHT BIG DATE. HARRY WINSTON MIDNIGHT BIG DATE DEPICTS THE TIME INDICATIONS IN A UNIQUE STYLE. ON THE CENTER STAGE, THE DIAL OFFERS THE LEADING ROLE TO A LARGE DATE AT 6 O'CLOCK. IT FEATURES A TRADITIONALLY CRAFTED CIRCULAR GUILLOCHÉ PATTERN, WHICH MOVES OUTWARD LIKE AN OFF-CENTERED RIPPLE.

IWC PORTOFINO HAND-WOUND EIGHT DAYS. THE PORTOFINO HAND-WOUND EIGHT DAYS CARRIES ON A COLLECTION OF WATCHES THAT ORIGINATED OVER 25 YEARS AGO. HOUSED INSIDE THE ELEGANT ROUND CASE IS THE NEWLY-DEVELOPED CALIBRE 59210, BUILT ACCORDING TO MODERN METHODS WHILE HONOURING THE TRADITION OF CRAFTSMANSHIP FROM SCHAFFHAUSEN.

PANERAI CALIBRE P.999. THE P.999 CALIBER MEASURES 27.4 MILLIMETERS IN DIAMETER AND ALSO IS 3.4 MM THICK. THIS MEANS THE MOVEMENT IS ACTUALLY SLIGHTLY SMALLER THAN OTHER CALIBERS OF THIS MODEL. IT IS THE IDEAL CORE FOR TIMEPIECES OF LESSER DIAMETER AND THICKNESS



GIRARD-PERREGAUX
1966 TOURBILLON WITH GOLD BRIDGE. GIRARD-PERREGAUX DELVES INTO ITS HISTORY FOR A MODEL IN COMMEMORATION OF ITS 220TH ANNIVERSARY: THE 1966 TOURBILLON WITH GOLD BRIDGE IS A CONCENTRATION OF WATCHMAKING TRADITION OF WHICH ONLY 50 WILL BE MADE.

TOURBILLON TIMING

What is even more incredible is when watch brands combine this ultra-flat allure with another true watchmaking complication. Piaget has done exactly that with the unveiling of the Piaget Ultra-Thin Tourbillon Automatic — a world-record-setting watch that demonstrates the technical capabilities of the brand. The timepiece, in the Emperador Coussin case, is the world's thinnest self-winding tourbillon. At just 5.35 mm thick, the caliber 1270P is the result of three years of development, and consists of 200 parts.

The Tourbillon, an escapement that compensates for errors in timekeeping caused by the effects of gravity on the watch in different positions on the wrist, is one of the most coveted watchmaking feats. Invented by Abraham-Louis Breguet and first implemented in a timepiece by him in the early 1800s, the tourbillon is one of the most revered and beautiful complexities to view, thanks to its continually rotating module. Also incredibly difficult to build, the tourbillon has become an object of art and a technological challenge all its own, as more and more watchmakers compete to create ever more precise tourbillon escapements. Today's brands vie to build the biggest tourbillon, or the smallest tourbillon, or the lightest tourbillon, and even the most ingeniously placed tourbillon. A waiting list often exists for these watches, as fewer than 5,000 tourbillon watches are created annually, each hand-built and retailing for upwards of \$80,000.



CREATIVITY AND INNOVATION

That is exactly what A. Lange & Söhne did this year in its Richard Lange Tourbillon "Pour le Mérite," which houses the brand's unique fuse-and-chain transmission, along with a tourbillon with patented stop-seconds mechanism. The hand-finished Lange caliber LO72.1 manually wound movement consists of 351 parts excluding the chain, and 636 parts with the chain included. The watch, inspired from an historical regulator pocket watch crafted in 1807, features a dial of three overlapping circles: the large minute circle is the dominant element; the smaller subdials display the seconds and the hour. The highly unique concept comes into play around the hour dial and the tourbillon escapement. For six hours at a time every day (from noon to 6:00 p.m. or from 6:00 to noon), a portion of the hour dial moves, or disappears, to reveal more of the tourbillon escapement — a truly marvelous invention. Harry Winston's the Histoire de Tourbillon 2 is a bold rendition of time almost in three dimensions. Also featuring three distinct displays on the dial: one showcases the bi-axial flying tourbillon with the seconds attached to it; another disk displays the retrograde hours with a day/night indication; a third, small disk at 6 o'clock displays the minutes. It is crafted in 18-karat white gold in a 48.5 mm case. Only 20 pieces will ever be made. "Complications need to be about creativity and innovation," says Frederic de Narp, CEO of Harry Winston in North America. "We want to take that to the next level, to go full steam ahead, because creativity is in our DNA, just like craftsmanship and rarity are, and customers expect this from us. A good complicated watch has to be different, bold, and unique." %

On December 7 1845, Ferdinand A. Lange opened his first workshop in Glashütte with the intention of producing the finest watches in the world. This was no small ambition, and the same determination continues to drive staff at the German Manufacture which since January is headed by the new CEO Wilhelm Schmid. German-born, Wilhelm Schmid has spent the past eight years in various management positions at BMW where, since 2007, he had been at the head of sales and marketing for South Africa. For this 165th anniversary celebrated last

December, A. Lange & Söhne has unveiled the fourth timepiece in the "Pour le Mérite" family of exceptional watches. This latest addition is no exception to the rule. The Richard Lange Tourbillon "Pour le Mérite" model has a fusee-and-chain transmission and a tourbillon with a patented stop-seconds mechanism. These two complications — the hallmarks of the Lange LO72.1 caliber which comprise 351 parts in addition to the 636 components of



WILHELM SCHMID IS THE NEW A. LANGE & SÖHNE CEO

the chain — combine to provide excellent time-keeping precision. The tourbillon is, in fact, visible in full from twelve to six, when a dial segment bearing the Roman numerals VIII, IX, and X suddenly masks the opening and, in doing so, completes the hour circle. In addition, nearly two years ago, when A. Lange & Söhne announced the beginning of a new epoch with the Lange Zeitwerk and its unusual design hallmarks, the declared objective was to depart from the beaten track. So it is no coincidence that the first chiming Lange watch is a "Zeitwerk" with jumping numeric display. Additionally, its mechanical design concept



A. LANGE & SÖHNE ZEITWERK
STRIKING TIME. LUDWIG VAN BEETHOVEN'S PRODIGIOUS REPUTATION IS DUE IN LARGE MEASURE TO HIS SYMPHONY NO. 5 WITH ITS FOUR-NOTE FANFARE OPENING. THE FATE MOTIF NOW USHERS IN A NEW CHAPTER IN THE HISTORY OF A. LANGE & SÖHNE: THE MOST RECENT SIBLING IN THE LANGE ZEITWERK FAMILY IS ENDOWED WITH A CHIMING MECHANISM THAT IS VISIBLE IN ITS FACE. IT STRIKES THE QUARTER-HOURS WITH HIGH-PITCHED TONES AND THE FULL HOURS AT A LOWER PITCH.

offers ideal prerequisites for the integration of a strike train. When the numeral discs are advanced, a sizeable force vector is unleashed, so enough energy remains after the switching cycle for other purposes. These reserves are now used by the chiming mechanism to tension the springs that actuate the two hammers. The one on the left strikes the hours, the one on the right the quarter-hours. The name Lange Zeitwerk takes center stage as a resonant masterpiece.

C.R.

AROUND-THE-WORLD TIMING

Another important complexity that takes center stage this year is the multi-time zone and world-time watch — as more and more people become global travelers. These pieces help wearers track time around the world and keep pace with hectic schedules — often with ingenious new readouts, and some with the ability to track the zones that change their times by the half-hour increment instead of hour increments.

One particularly interesting innovation hails from the house of Cartier in the form of the 18-karat gold Caliber de Cartier Multifuseaux multi-time-zone watch that houses the Caliber 9909 MC. This extremely readable piece not only offers home time,

traveler time, and day / night indications, it also introduces a never-before-seen new function: the time difference between the two selected time zones. By pressing a pushpiece, the wearer can view the alternate time zone city, its local time, and the time difference between that time and the local traveler time. The watch is not only technically advanced, but is visually stimulating, as the city disk of the self-winding Caliber 9909 MC displays the city names on the side of the watch instead of on the dial. The ingenious 27-jeweled movement consists of 287 parts.

Blancpain this year released its first-ever dual time-zone watch with half-hour intervals for those who travel to certain parts of the world (such as India) where time differences are in half-hour increments. Part of the classically elegant Villeret series, the Villeret Demi-Fuseau Horaire enables the wearer to adjust the second time zone by the half-hour. User friendly, the watch houses the Caliber 5254DF, a 321-part self-winding movement with 72 hours of power reserve.

“We must always keep pace with what goes on in the world,” says Marc A. Hayek, president of Blancpain. “We must develop the technology to offer what the consumers need. Nothing less is acceptable.”

Similarly, Vacheron Constantin has released, as part of its Patrimony collection, the Traditionnelle World Time — the first watch created to display all 37 time zones, including those offset from the Universal Time coor-

dinates by the quarter-hour. The watch houses the brand's patent-pending Caliber 2460WT with Geneva Hallmark. The display features three dials and a sapphire disk that shows day and night around the world. Breguet's Hora Mundi Classique 5717 is a world-timer watch that allows the wearer — for the first time ever — to switch instantly back and forth between two time zones of his or her choice simply by pushing a crown at 8:00 after setting the two zones.

CHIMING TIME

As mentioned earlier, there are still the mighty complications being offered — such specialties as the minute repeater and sonnerie — watches that chime the time in melodious wonder. With roots in the early 17th century, these timepieces are true delights to see and hear. They operate via a complex mechanical network of gears, hammers, and gongs to strike the time in several tones. Generally these pieces have 500 or more components and are built in extremely limited numbers due to the complex nature of their construction. Ulysse Nardin, master at creating minute repeaters and Jaquemarts, releases the Alexander the Great Minute Repeater Westminster Carillon Tourbillion Jaquemarts. Honoring leader Alexander

LONGINES MASTER COLLECTION RETROGRADE MOON PHASES. LONGINES HAS SUCCEEDED FOR THE FIRST TIME IN BRINGING TOGETHER A SYMPHONY OF RETROGRADE HANDS. THE MODEL INCLUDES THE DAY OF THE WEEK AT 12 O'CLOCK, THE DATE ON THE RIGHT-HAND SIDE OF THE DIAL, A 24-HOUR SECOND TIME-ZONE ON THE LEFT-HAND SIDE, AND A SMALL SECONDS AT 6 O'CLOCK. THESE FOUR FUNCTIONS ARE RETROGRADE: THE HANDS THAT DISPLAY THIS INFORMATION RETURN IMMEDIATELY TO THEIR FORMER POSITION ONCE THEY HAVE COMPLETED THEIR CYCLE.

the Great, the watch features a one-minute tourbillon integrated along with a repeater that houses four gongs to chime the time with Westminster chimes. The five moving Jaquemarts on the watch are all figures of Alexander the Great clad in armor in different fighting positions that take action when the gongs sound. Just 100 pieces — 50 each in 18-karat white or rose gold — will be built.

Patek Philippe also released a minute repeater this year in the form of its Ref. 5208, Triple Complication. One of the few brands that went deep in multiple-complications this year, this legendary watchmaker actually released six new Grand Complications. The Ref. 5208 Triple Complication represents the first with this combination of functions: minute repeater, chronograph, and instantaneous perpetual calendar with aperture displays. This watch ranks second on the brand's most complicated wristwatches list (after its Sky Moon Tourbillon). %

PIAGET ALTIPLANO 43 MM WHITE GOLD WITH GEM-SET BEZEL. IN 2011, THE MANUFACTURE DE HAUTE HORLOGERIE PIAGET IS FURTHER ENRICHING ITS ALTIPLANO COLLECTION, WHICH HAS BECOME A BRAND ICON, BY PRESENTING NEW RELEASES THAT CONSOLIDATE THE LINE'S LEADERSHIP POSITION IN THE FIELD OF ULTRA-THIN WATCHES. WHILE THE CASE OF THIS ALTIPLANO 43 MM IS THE THINNEST IN ITS CATEGORY, THE 2.35 MM THICK CALIBER IT HOUSES IS CURRENTLY THE THINNEST MECHANICAL AUTOMATIC MOVEMENT ON THE MARKET.



OMEGA HOUR VISION CO-AXIAL SKELETON PLATINUM. THIS LIMITED EDITION TIMEPIECE, WITH ITS 41 MM OUTER CASE, IS CRAFTED FROM 950 PLATINUM AND HAS A 360° TRANSPARENT SAPPHIRE CASEBODY SET INSIDE IT, ALLOWING UNOBSTRUCTED VIEWS OF BOTH SIDES OF THE EXCLUSIVE OMEGA CO-AXIAL CALIBER 8403 WHICH DRIVES THIS WATCH EQUIPPED WITH A SILICON BALANCE SPRING.



UNUSUAL COMPLEXITIES

This year, too, a host of watchmakers pulled out all the stops, pushing the creative envelop to the limits and unveiling unusual new complexities in watchmaking. These complications ran the gamut from watches with gambling games built in to timepieces that suspend, hide, or disperse time.

SEIKO CREDOR SPRING DRIVE MINUTE REPEATER. THE TIMEPIECE THAT HAS EVERY CHANCE OF WINNING AFICIONADOS' HEARTS IS THE FASCINATING CREDOR SPRING DRIVE MINUTE REPEATER. ALL TOO OFTEN OVERLOOKED BY WESTERN COLLECTORS, THE JAPANESE FIRM DEMONSTRATES ITS TALENT BY INCORPORATING SPRING-DRIVE TECHNOLOGY — THE MECHANICAL TRI-SYNCHRO MOVEMENT THAT IS AS ACCURATE AS QUARTZ — INTO A MINUTE REPEATER: AN ASSOCIATION THAT HITS ALL THE RIGHT NOTES FOR THE CLASSIC AND, PURISTS WILL SAY, MOST ACCOMPLISHED COMPLICATION OF ALL.



VACHERON CONSTANTIN PATRIMONY CONTEMPORAINE PERPETUAL CALENDAR. A PERPETUAL CALENDAR JOINS THE PATRIMONY CONTEMPORAINE COLLECTION BY VACHERON CONSTANTIN. DRIVEN BY CALIBER 1120 QP, A SELF-WINDING MECHANICAL MOVEMENT HALLMARKED POINÇON DE GENÈVE, THIS EXTRA-THIN WATCH INDICATES HOURS AND MINUTES, WITH A PERPETUAL CALENDAR THAT SHOWS THE DAY, DATE, MONTH, LEAP YEAR, AND MOON PHASES.

At Hermès, the game was all about suspending time, as the brand turned to watchmaker extraordinaire, Jean-Marc Wiederrecht to develop this extremely unusual watch. Called the Arceau Time Suspended watch, the classically beautiful retrograde piece suspends the tracking of time at will — seeming to make time stand still. Four years in the making, the watch operates via a triple retrograde system — with one retrograde hand for the minutes, one for the hours, and one that moves the date. By simply pressing a push-button, the wearer stops the hour and minute hands, which are superimposed in a space near 12:00 o'clock (as though they don't exist). Even the date hand disappears. With another press on the push-button, the hands begin running again to the correct time (which the heart of the watch has been tracking all the while), and the date instantly appears again — correctly, of course. In this watch, the base movement always keeps the time. There is a separate 140-piece module on top that engages and disengages the time-stopping mechanism.

"We are a house that produces beautiful objects and the idea here is to produce a watch that lets people dream," says Luc Perramond, CEO of La Montre Hermès S.A. "Time for us is a friend; it is not a stress factor." ▾

Christophe Claret, for instance, released its 21 Black Jack watch, a timepiece that really crossed a proverbial line — blurring the distinctions between time and fun. The horological masterpiece deftly combines Claret's specialty of chiming time, with complicated movement making and pure fun.

In addition to displaying hours and minutes, the watch enables its wearer to play three casino games: black jack — with striking mechanism; roulette; dice. Two side windows reveal the artistry herein: one shows the striking hammer with its gong, while the other shows the two dice. The automatic Caliber BLJ08 consists of 501 parts, 40 jewels, and seven double ceramic ball-bearing mechanisms. Just 21 pieces of each version will be built.

"For me, creation is about looking beyond what has been done and developing something so different, creative, and even outside of the realms of possibility as most people know them," says Christophe Claret. "We can never be afraid to think outside the box and propose new ways to display the time."



TAG HEUER MIKROTIMER FLYING 1000. THIS WATCH IS THE WORLD'S FIRST-EVER MECHANICAL CHRONOGRAPH TO MEASURE AND DISPLAY THE 1/1,000TH OF A SECOND, MAKING IT 125 TIMES MORE ACCURATE THAN MOST EXISTING MECHANICAL CHRONOGRAPHS. USING COMPLEX DIFFERENTIAL KINEMATICS, TAG HEUER WATCHMASTERS AND ENGINEERS HAVE DESIGNED AN ULTRA-HIGH-FREQUENCY 500HZ SPRING OSCILLATING SYSTEM THAT VIBRATES A PHENOMENAL 3,600,000 BEATS PER HOUR.

CHOPARD L.U.C QUATTRO. CHOPARD PRESENTS A NEW ITERATION OF ITS L.U.C QUATTRO, A WORLD-FIRST AT THE TIME OF ITS LAUNCH WITH THE L.U.C 1.98 HAND-WOUND MOVEMENT (POINÇON DE GENÈVE AND COSC), THE ONLY CALIBER TO INCORPORATE FOUR SERIES-COUPLED, STACKED BARRELS. THIS PATENTED TECHNOLOGY PROVIDES A NINE-DAY POWER RESERVE AND CONSTANTLY REGULAR RATE.

