

IWC
Spitfire Perpetual
Calendar

Hot Dates!

Calendar watches heat up the horology scene with new takes on an old problem *BY LAURIE KAHLE*

In case you are not familiar with the Chinese calendar, 2012 is the Year of the Dragon, which explains the current preponderance of watch dials in the market that are embellished with the mythical creature associated with prosperity and power. It is also a reminder of the burgeoning Chinese luxury market, which Swiss brands are unabashedly courting. Blancpain, however, advanced beyond mere decoration with its Traditional Chinese Calendar watch. The dial uses Chinese characters in addition to Roman numerals to display the hours, minutes, and the Gregorian calendar alongside the main indications of the lunisolar Chinese calendar: traditional double-hour indication, day, month with indication of leap months, the 12 animals of the Chinese zodiac, as well as the five elements and the 10 celestial stems. A moon phase display makes the connection between the lunar cycle and traditional Chinese months.

The magnitude of such a creation—a watch that calculates both Western and Asian calendar data—comes into sharper focus when you consider that even a calendar watch based solely on our solar calendar poses challenges for watchmakers due to irregular months and leap years. For hundreds of years, watchmakers have understood how to display dates as well as time, but the latest takes on the genre offer such enhancements as improved setting systems, new representations of lunar phases, novel combinations of

complications and, of course, ever-expanding design motifs. They also further explore a comparatively recent advancement, the annual calendar watch, which created a new watch category as well as its own market niche between the hyper-expensive models that almost never require resetting and the more affordable ones that need nearly bimonthly attention. And with the new annual category has come a new breed of collector.

An estimated 40 different calendars are used around the globe, but the one we—and the watches we wear—generally follow is the ecclesiastical Gregorian calendar, which was established by papal decree in 1582. Because that system includes months of varying lengths, a simple calendar watch, with a 31-day readout, must be adjusted five times a year to correct for those months with fewer days. The annual watch needs adjusting only once a year, on March 1, while the rare semi-perpetual calendar requires correcting on leap-year day only. Highly complex perpetual calendar mechanisms have existed since 1795. Attributed to the 18th-century watch-making genius, Abraham-Louis Breguet, a perpetual calendar will automatically adjust for monthly variations as well as leap years. Provided that you keep one running continually, a current perpetual calendar will track the day, date, month and moon phases without need for adjustment until 2100. You would then have to adjust on March 1, as that's the next time that an end-of-century year will be a common



BLANCPAIN
Chinese Calendar Watch



MAÎTRES DU TEMPS
Chapter Two



PATEK PHILIPPE
Ref. 5204

year (365 days) and not a 366-day leap year. (The Gregorian calendar reconciles the fact that the length of a solar year is actually 11 minutes shorter than the 365.25-day cycle that the Julian calendar assumed. It did this by eliminating what would normally be the quadrennial leap year that comes on end-of-century years—except those years divisible by 400.) If you are still running your perpetual watch in the year 2400, you won't have to bother to reset its date at the end of February.

Yet that is not to dismiss the first category of calendar watches. While it may technically be a simple triple calendar (showing day, date and month, but still running on a 31-day cycle), there is nothing basic about Maîtres du Temps's Chapter Two, which takes on a sporty personality in its new round case made of Grade 5 titanium and black PVD. Maîtres du Temps's hallmark is using turning roller displays, an inventive approach that was inspired by a vintage clock. Like the Chapter One, Chapter Two's rollers indicate the day and month. For its second model, the young boutique brand partnered with independent masters, Peter Speake-Marin (who worked with Christophe Claret on Chapter One), and Daniel Roth, an industry veteran who sold his eponymous brand to Bulgari.

Still, perpetual calendars are the most highly sought after and expensive due to the technical challenges involved in creating them. "The perpetual calendar is one of the most amazing complications that has ever been," says John Reardon, head of watches at Sotheby's in New York. "The execution of it continues to evolve as companies look for novel ways to display the information conveyed through the dial, but the basic technology has remained the same."

Just as the engineering has changed little, the high level of skill required to produce a perpetual calendar has not faltered. "Each part of a perpetual calendar has to be adjusted by hand, so any perpetual calendar that we make is not something that can be put into regular production," says Laurent Junod, Patek Philippe USA's lead watchmaker. Patek Philippe

garners particular reverence in perpetual calendars as it produced the first perpetual calendar watch meant to be worn on the wrist in 1925. This year, the brand introduced three significant perpetual calendars including the Ladies' First for women, the ultra-thin automatic Ref. 5940J in a retro cushion-shaped case, and the Ref. 5204, which marks the latest evolution of the brand's much-heralded in-house chronograph movement that debuted in 2009. Patek added a split-seconds mechanism and a perpetual calendar module to its chronograph, which has six patents either pending or accepted. Junod points out such clever 21st-century innovations as the way the clutch lever is adjusted by using the cap on the column wheel. The teeth on the two chronograph wheels have also been reshaped for heightened efficiency and smooth action when you stop and start the chronograph hand.

One of the most vexing aspects of owning a perpetual calendar can be the hassle of resetting all the different displays with a push pin if the watch's mainspring runs down. Some of the most notable innovations in perpetual calendar technology over the decades have simplified this process. In 1985, master watchmaker Kurt Klaus of IWC developed the Da Vinci, a mechanical chronograph with a perpetual calendar and a four-digit year display. With only 83 components, the groundbreaking movement allows you to set all the calendar functions—date, day, month, year, decade, century, millennium and phase of the moon—via the crown, an industry first. As you pull out the crown to set the date and time, the other displays automatically adjust. The movement powers IWC's latest pilot's perpetual calendar, the Spitfire Perpetual Calendar Digital Date-Month, which displays the date, month, and four-year leap-year cycle digitally in a nod to cockpit instrumentation.

Such elegant solutions have defined the oeuvre of Dr. Ludwig Oechslin, the independent visionary behind Ulysse Nardin's most complicated watches. His user-friendly design is the only perpetual calendar watch



ULYSSE NARDIN
El Toro



CARTIER
Ronde de Cartier Annual Calendar



GIRARD-PERREGAUX
Tech GP1966

that adjusts forward and backward with the crown, even in the year 2100. The brand unveiled the patented Perpetual Ludwig watch in 1996 to mark the 150th anniversary of the company.

Oechslin's particular genius is the ability to devise such original, integrated concepts to solve complex watchmaking problems, rather than simply adding parts to correct for problems that arise. "I like to find the simplest solution—the less parts I need to make the same indication the better," he explains. "This is my goal, which is not always so impressive for the public, but it takes a lot more work." Oechslin's new Ochs und Junior collection applies his less-is-more philosophy with an "intuitive" calendar display composed of patterns of dots that require you to understand the system to read the date. "It appears more challenging, but it's actually a simple way to read a watch once you learn how to do it," he adds.

Oechslin's streamlined perpetual calendar mechanism is paired with a dual-time-zone function and oversize date in Ulysse Nardin's El Toro, now outfitted in red gold and blue with a ceramic bezel and pushers. The watch's big date, day, month and year change instantly forward or backward when the hour hand is moved to a new local time with the pushers.

Cartier's new Rotonde de Cartier Annual Calendar also allows you to set the watch via the crown. The watch's multilevel dial was devised for enhanced legibility with a double central dial and large date aperture. "From the outset, we took into consideration the most ideal specifications and looked at the fundamentals to develop a movement," says Carole Forestier-Kasapi, who directs Cartier's movement development. "This meant focusing on the function of the complication—for example the date is positioned to represent the most important information on the

dial, and the day and month are relegated below the central dial as secondary information."

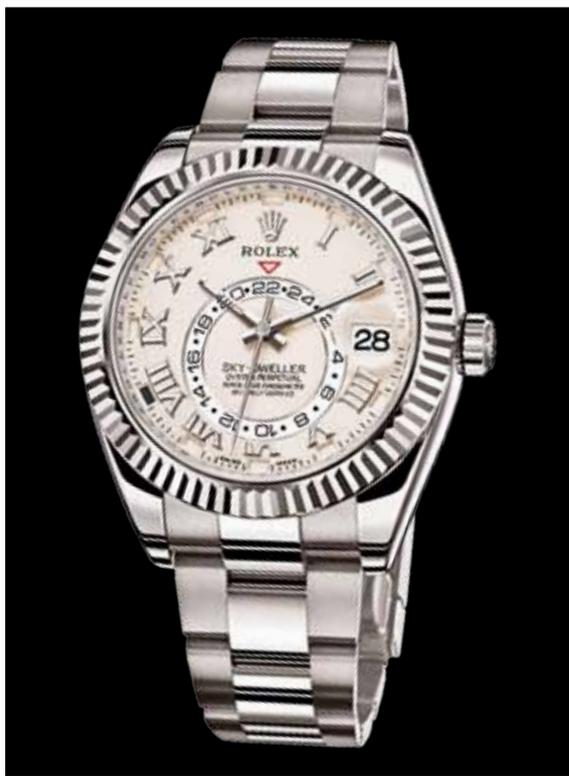
Surprisingly, annual calendars did not emerge until 1996, when Patek Philippe introduced its Ref. 5025. "It was a hybrid—not a perpetual and not a simple calendar," says Junod. "Nobody thought it would be commercially successful, but it was." This year, Patek Philippe added rose gold and white gold bracelets to its 5396 annual calendar line as well as two new dials for the rose gold 5960R, which pairs an annual calendar with a chronograph. The annual calendar is an intermediate complication that has allowed the maker to offer a more accessible complication to a broader audience. "Many who could not afford a perpetual calendar could buy a similar watch," says Junod, adding that the annual calendar cost about half as much as a perpetual calendar.

"From a watchmaking perspective, the annual calendar was a brilliant, simple solution to an ancient problem," says Sotheby's Reardon. "A perpetual calendar is typically cam based with the cam rotating four times a year. The annual calendar is a rotary-based system that computes the number of days in each month throughout the year."

The complication was also brilliant from a marketing perspective. "It offers an opportunity for collectors to own a piece of horology at a more affordable price," continues Reardon, who notes that Patek Philippe had a virtual monopoly on annual calendars until recently, when other brands saw the wisdom of investing in this stepping-stone complication. This year, annual calendars were presented by Corum, Girard-Perregaux, and Omega among others. "The annual calendar actually inspired a whole new genre of watchmaking with this mid-level complication."

Reardon and scores of Rolex purists were shocked this year when

"The perpetual calendar is one of the most amazing complications that has ever been. The execution of it continues to evolve."



ROLEX
Sky-Dweller



PARMIGIANI
Tonda Annual Calendar



DE BETHUNE
DB 25 Maya

Rolex unveiled its new Sky-Dweller annual calendar with a dual-time-zone function at the Baselworld fair in Switzerland. Some bloggers instantly derided the complicated piece for its atypical aesthetic, while fans declared it a forerunner to a new era for Rolex. The Sky-Dweller is a watch aimed at affluent globetrotters that shows local time on the center hands and home time on a 24-hour rotating disc at the center of the dial. The annual calendar is dubbed Saros as a tribute to its inspiration—the approximately 18-year cycle that aligns sun, earth, and moon resulting in lunar and solar eclipses. The calendar system is designed around a fixed planetary gear that represents the sun at the center of the movement. A satellite wheel symbolizing the earth engages the planetary wheel and rotates, completing a revolution around the planetary gear once per month, driven by the date disc. The satellite wheel has four fingers for the four 30-day months. At the end of these months, the date disc instantly jumps twice to advance the date to the 1st. Meanwhile, the months are shown through apertures positioned around the dial. A novel setting system allows you to set the local time, home time, and the date using the rotating Ring Command bezel to designate the individual function you intend to adjust.

“I wonder if it represents a new departure for Rolex to go into more complicated timepieces,” says Reardon. “From an auction perspective, it is such a rarity to present a complicated Rolex. In the 1950s and ’60s, they made the Ref. 8171, which is a cult collectible and the ultimate Rolex you could own with a calendar and moon phase. The new complication is exciting in the world of Rolex, and in the world of watchmaking in general.”

Parmigiani also debuted a new movement with the Tonda Annual Calendar, based on the brand’s PF 331 automatic caliber developed in its workshops in Fleurier, Switzerland. The unusual retrograde date hand sweeps along the top of the dial and snaps back at the end of the month. It will need to be adjusted in non-leap years, but in leap years, the date will

display February 29 and jump back to March 1 the following day. The exceptionally precise moon phase—which displays for both southern and northern hemispheres—requires a correction only once every 120 years.

A moon phase display is a natural complement to calendar watches given our lunar-based calendar. The ancient Maya, who were accomplished astronomers, also developed calendars based on lunar cycles. The mind-boggling Mayan calendar system has captured the attention of people around the world who have speculated about a doomsday scenario on December 21, 2012 at 11:11 UTC, when the Mayan calendar supposedly ends. (The Maya divided time into underworlds of 400 years each, the last of which ends on that date.) Even Hollywood hyped the apocalyptic prophesy in the film *2012*. Experts, however, dismiss the notion, pointing out that the date simply marks the start of a new cycle—a time for celebration rather than a cataclysm.

De Bethune, a brand known for its artful approach to technical watchmaking, pays tribute to the scientific and artistic accomplishments of the Maya with the DB25 IX Maya, limited to 12 pieces. The artisan Michèle Rothen hand engraves each unique solid gold dial to evoke the sculpted ceramics and stones in Mayan culture and to reflect the calculations of its intricate calendar system. Mayan numerals are positioned along the hour circle, while an inner ring depicts 20 glyphs of divinities, animals, and sacred objects representing the various days of the calendar. At the center of the dial is a period glyph, the baktun, which is used to calculate what’s known as the Long Count lasting 144,000 days. So as not to obscure Rothen’s work, the watch’s hands are crafted from clear sapphire crystal, rimmed with blued steel. Should you awaken on December 22, 2012, donning the DB25 IX Maya will serve as another poignant reminder that no one really knows when their time will come. ❖

Laurie Kahle writes on timepieces and travel for CIGAR AFICIONADO.