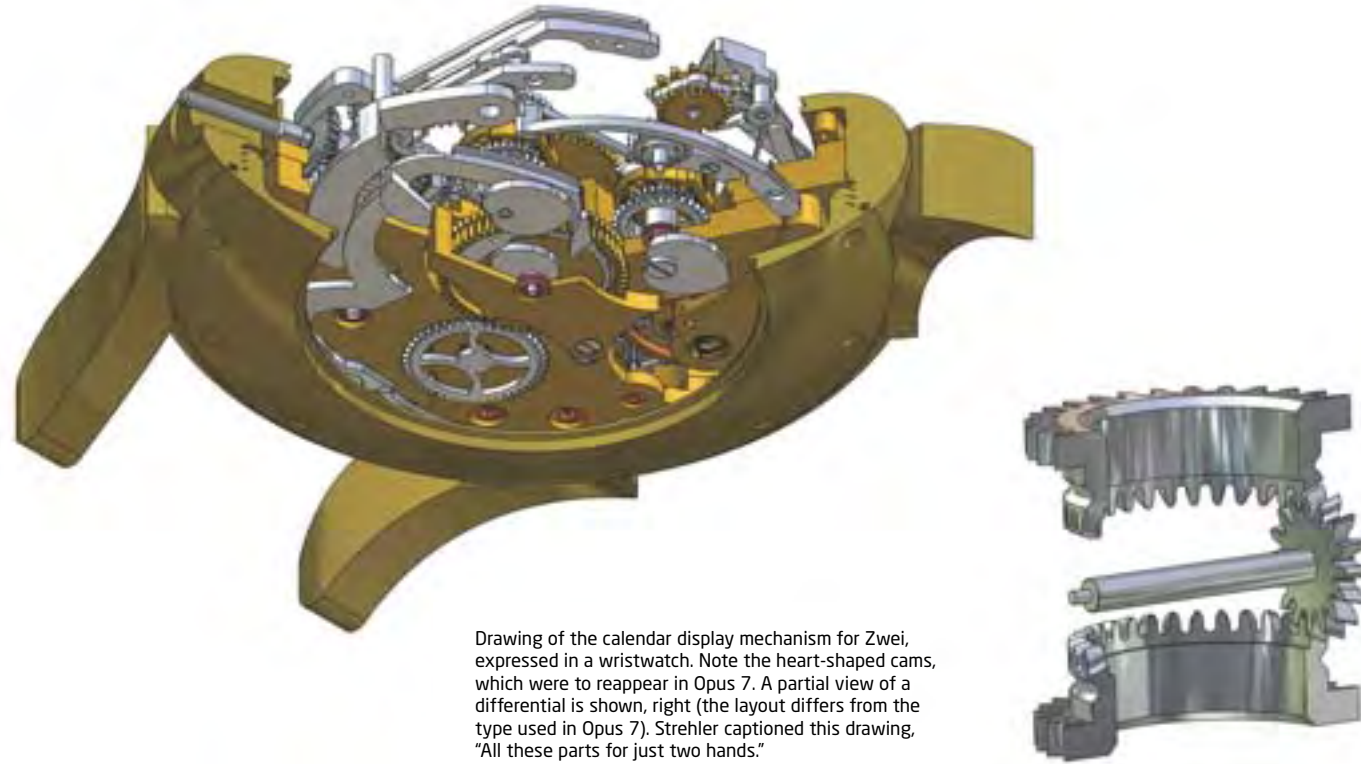


Andreas Strehler

A young watchmaker
in strong demand

Timothy Treffry

(Top and above centre) Andreas Strehler in conversation with his latest patron, Hamdi Chatti, about Harry Winston's Opus 7. (Above left) Strehler's launch pad: a perpetual-calendar desk set. A dial on the left of the base displays the day of the week and hands on a large central dial indicate the date, month, and year. Initially the calendar display is set with the watch in place. When the watch is removed it keeps track of the elapsed time and corrects the calendar when it is returned to the base. The calendar display is driven by a spring in the base. (Above right) Strehler's second watch, Zwei, displays the date on demand. While the button at 10 o'clock is pressed, the minute hand moves to indicate the date and the hour hand the month; January to December being '1' to '12'.



Drawing of the calendar display mechanism for Zwei, expressed in a wristwatch. Note the heart-shaped cams, which were to reappear in Opus 7. A partial view of a differential is shown, right (the layout differs from the type used in Opus 7). Strehler captioned this drawing, "All these parts for just two hands."

Andreas Strehler is one of a new generation of watchmakers who respect tradition but are not shackled by it, and upon whose skill and creativity the future of high-end watchmaking depends. He was responsible for perfecting what is perhaps the most interesting and effective perpetual calendar currently in production, Moser's Perpetual 1, and most recently was chosen by Harry Winston to create the seventh of its remarkable Opus series. As Harry Winston Rare Timepieces' MD, Hamdi Chatti said: "It is about feeling. I want a true watch inventor; someone that has mastered the traditional watchmaking techniques while keeping his mind open for new ways of telling time. At our very first meeting [orchestrated by one half of Opus 6's mastermind, Robert Greubel] we immediately decided to work together on Opus 7." Moser's Jürgen Lange concedes: "He is a very analytical watchmaker; one of those species who instantly understands what I mean if I have a new idea."

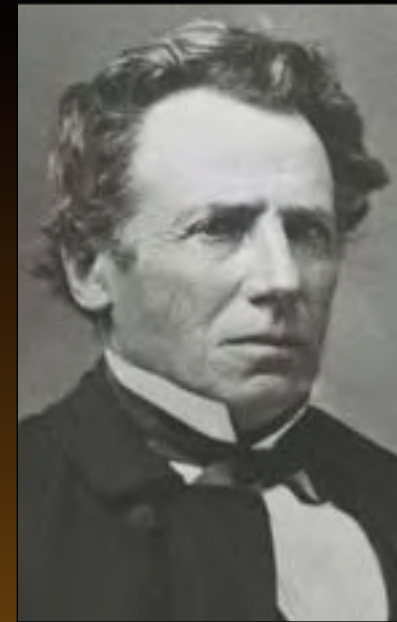
Strehler, 36, was born and brought up in Winterthur, Switzerland, where he still lives, amusing himself away from the bench by being dragged across alpine meadows by kite. His father and grandfather were both mechanical engineers and his father is now a clockmaker. His earliest memories are of a home filled with clocks and watches with his father working on items from his collection in his spare time. After graduating from the School of Horology in Solothurn in 1991, Strehler worked in the prototyping workshop at contemporary watchmaking's most famous mercenary maker Renaud & Papi, which had just been bought by Audemars Piguet. Leaving at the end of 1994 to set up his own workshop, he mainly produced minute-repeating movements for Audemars

Piguet and carried out restoration work. He now offers his own range of watches to collectors, simply saying, "I like to make watches with new mechanisms; to do something that hasn't been done before." He can say that again.

Sympathique

In 1998 he exhibited at Baselworld with the AHCI - the co-operative of independent makers whose members include those that, like Franck Muller, François-Paul Journe and Antoine Preziuso, have gone on to found their own companies, as well as a number of individuals who have established a loyal following among collectors, like Vianney Halter and Philippe Dufour. It was amongst such prestigious company that Strehler's interest in perpetual calendars and unusual mechanisms became apparent. He had made what, on first sight, appeared to be an ordinary pocket watch in a rather special Damascene steel case.

The watch was designed to double as a desk clock and sits at the side of a gilded base, which includes a full calendar display. It is in the interaction of the watch and the base that the brilliance of Strehler's creation is apparent. The watch controls the perpetual calendar and regularly updates it; the 'sympathique' relationship explored by Abraham-Louis Breguet 200 years earlier, when watches were far less accurate than clocks. In the most complex of Breguet's devices, the watch was placed in its cradle on top of the clock overnight, during which time it would be rewound and set to the correct time. Journe revived and improved on Breguet's system in the Eighties, incidentally, at the behest of John Asprey (see Issue 17, 'Rise of a Star').



H Moser & Cie and Strehler's Perpetual 1

Young Le Locle watchmaker Heinrich Moser (pictured) was first drawn to Russia in 1827 by the prospect of good business, and by 1828 had set up the trading company H Moser & Co. in St Petersburg. Within a year, Moser had guaranteed the superior quality he claimed of his watches by establishing a watch factory back in Le Locle. Business flourished, and spread from the Russian Imperial Court to China to Paris and New York. Returning to Schaffhausen a prosperous man in 1848, Moser quickly became something of a local benefactor, transforming the town into a lively industrial centre and even helping FA Jones to establish IWC in 1868. Following his death in 1874, Moser's second wife Fanny sold-off the Russian operation and the Le Locle factory, stipulating that all successor companies operate under the H Moser & Cie name. Save for the former, abandoned in 1917 after the Revolution, Swiss operations continued in various guises until 2002 - the dawn of the brand's modern incarnation.

That year, a certain Dr Jürgen Lange re-registered the original H Moser & Cie brand, and in conjunction with private investors and Heinrich's great-grandson Roger Nicholas Balsiger, founded the watch company Moser Schaffhausen AG. Three years later, on the bicentenary of Heinrich's birth, the latest watches to perpetuate his legacy were launched.

It was at the AHCI stand that Lange first learned of Andreas Strehler's work. Watch-company presidents and key personnel can often be seen talking earnestly to young watchmakers in the blink-and-you'll-miss-it corner of Baselworld, and for good reason. Lange immediately saw potential in Strehler, and most importantly the potential to bestow hefty horological weight to his recently acquired brand.

At first glance the Moser Perpetual 1 looks like a classic dress watch with date and power reserve indication. Lurking behind the dial however is a movement that combines brilliant innovation and traditional craftsmanship of the highest order. There are many special features to be discovered in this understated masterpiece.

It is not immediately obvious that this watch has a perpetual calendar. Firstly, look again at that dial. That stubby hand in the centre actually jumps around to indicate the month, as Strehler, in a stroke of delightful elegance, uses the 12 hour markers to represent the 12 months in the year (a concept first explored in his Zwei watch). Secondly, the large date display is not only easy to read, but at midnight on the last day of any month it changes instantly to '1'. No other watch does this. Should you need to change the date, this can be done at any time of day and in either direction using the crown.

Due to the special design of the mechanism it is not possible to accidentally stop the watch when intending to change the date. Third and finally, the escapement and balance. Usually an integral part of the movement, in the Moser watches they form a separate module. This allows the watch to be serviced by an in-store technician. After cleaning and lubricating the basic movement, the escapement module can be replaced by a factory-adjusted unit. The original can be quickly replaced on a second visit if desired. This facility means that owners will be deprived of their watch for, at most, a few days, while the movement is being cleaned and lubricated. The power reserve, by the way, is a full seven days - though the indicator is far too shy to boast that, of course.

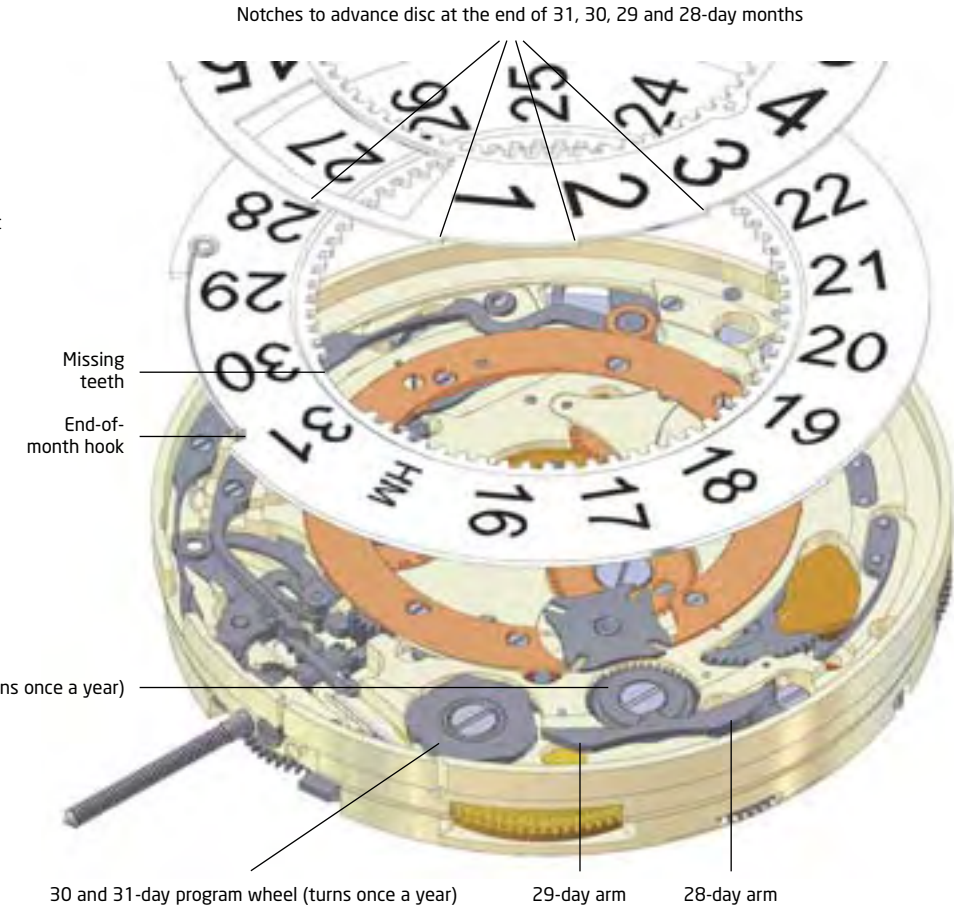


(Above) The stubby central hand is pointing to '5' so the month is May. Seen here in rose gold with silvered dial, the Perpetual 1 alternatives are rose gold and black dial, white gold and rhodium dial (all SFr.32,000), or platinum with a ruthenium dial (SFr.41,500).



(Left) Rear view of the Perpetual 1's HMC341 movement. The leap-year indicator turns once in 12 years. If the watch has been stopped for some time, the pusher at the side of the case sets the year by operating on the L-shaped lever pivoted above the balance. In leap years a cam under the leap year indicator will, via the L-shaped lever pivoted above the indicator, feed back to the date mechanism to give a 29-day month. Uniquely to Moser, the balance and escapement assembly can be removed simply by undoing two screws (marked).
 (Below) The Perpetual 1's double-pull crown mechanism, shown in the outer-most 'hand-set' position. In 'date-adjust' the curved piece (arrow) is rotated so that the wheel attached to it comes into mesh with 'D', which turns the date rings. Uniquely, date adjustment can be made in either direction at any time of day. The curved piece engages via a slotted arm and a click system that, again uniquely, unambiguously selects the crown positions. The crown is pulled into date-set and then released before pulling again to get into 'hand-set'. Thus, the tiresome search for the central 'date-adjust' crown position is now a thing of the past.

Perpetual 1's calendar mechanism
 The large size of the date display is achieved by having the 31 numbers distributed between two superimposed discs. The upper disc moves every midnight until the 16th, when '15' is followed by a hole. Missing teeth on the upper ring ensure that it stays there for the rest of the month while the lower disc displays '16' onwards through the hole. At the end of the month, whether at midnight on the 28th, 29th, 30th or 31st, the upper disc moves again to bring '1' instantly into position, instead of cranking laboriously through 29, 30 or 31, like in other perpetual calendar watches. This pre-programmed 'Flash Calendar' mechanism is unique and very clever, co-ordinated by three wheels: the 30 and 31-day wheel, the February wheel (both marked above), and a leap-year wheel seen on the back of the movement (see movement photo opposite). These wheels take it in turn to position the lower ring's 'end-of-the-month' hook to engage with the appropriate notch on the upper ring's outer edge, moving '1' into position.



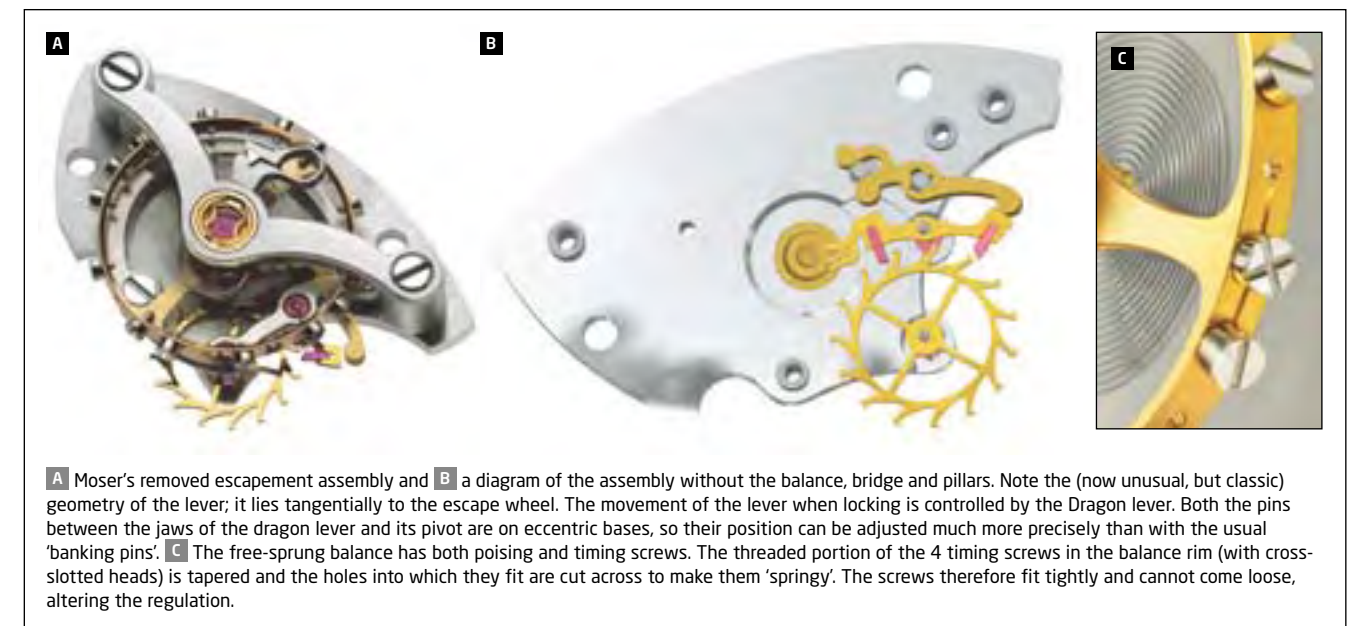
In Strehler's *sympathique* system however, the calendar display is initially set with the watch in place. When the watch is removed, it keeps track of how many days have passed and corrects the calendar when it is returned to the base. It can even do this after three weeks and it will correct the calendar when you return. After being 'off base' for 18 days the watch warns the owner that its memory will expire soon. Should you be away for longer, it is easy to reset the base unit by hand. Although the ingenuity of the piece was admired, Strehler was advised that, with a price tag of around £120,000, it was too expensive.

Zwei

This fascination with calendars and mechanisms was taken further in Strehler's second watch, simply called 'Zwei' (German for 'two'). As well as the hour markers, the dial has peripheral numerals for the date. When a button at 11 o'clock is pressed, the minute hand jumps to indicate the date and the hour hand moves to the month numeral, i.e. '1' for January, '2' for February, etc. When the button is released the hands return to their timekeeping function. When the system was incorporated in his first wristwatch (called 'Wristwatch'), it was enhanced to provide an annual calendar, which only needs correcting on the 1st of March. Incredibly, a perpetual calendar version is already in prototype form.

Although these watches didn't sell either, they did alert key people to the existence of a creative new practitioner on the scene. Many people who exhibit at Baselworld are profoundly disappointed by their impact on the first occasion; the industry seems very wary of 'Johnny-come-latelies'.
 Continued commitment and creativity needs to be established, and it eventually became apparent that Strehler's skills were rather special. Two key clients have had the foresight to capitalise on these, early on.

"I like to make watches with new mechanisms; to do something that hasn't been done before."



A Moser's removed escapement assembly and **B** a diagram of the assembly without the balance, bridge and pillars. Note the (now unusual, but classic) geometry of the lever; it lies tangentially to the escape wheel. The movement of the lever when locking is controlled by the Dragon lever. Both the pins between the jaws of the dragon lever and its pivot are on eccentric bases, so their position can be adjusted much more precisely than with the usual 'banking pins'. **C** The free-sprung balance has both poising and timing screws. The threaded portion of the 4 timing screws in the balance rim (with slotted heads) is tapered and the holes into which they fit are cut across to make them 'springy'. The screws therefore fit tightly and cannot come loose, altering the regulation.

“He is a very analytical watchmaker; one of those species who instantly understands what I mean if I have a new idea.”



No hands, no dial

As in a 1970s LED quartz watch, if you want Harry Winston Rare Timepieces' latest Opus watch to reveal information, you have to press a button. This is made easier using a lever over the crown. As pictured, the blue pointer with the little 'M' (no, it's not a bat) is indicating the minutes after the hour. Press the button, the 'M' is replaced by an 'R' and the disc jumps to show the power reserve (which, being 60 hours, is conveniently displayed using the same numbers - a similar stroke of elegance to the Moser Perpetual 1's 12 months/12 hours indication). Another press, a white pointer with an 'H' appears and the disc moves to indicate the time in hours. 'Hour', 'minute' and 'reserve' are shown on successive presses of the button.

If left on the 'R' display, time will seem to pass very strangely. But Opus 7 (limited to 50 pieces; £97,000) is not primarily a timepiece; it is a stylistic and technological 'tour de force' by Andreas Strehler. The skeletonised watch plate with its graceful arches harmonise with the curvature of the unusually large wheels and their spokes. Though strikingly ornamental - a sort of 'butterfly' effect - Strehler and HWRT's Hamdi Chatti were keen to emphasise at the Baselworld press conference that despite designing the movement for the front of the watch, doing away with a dial, every component was designed with function in mind, not mere decoration.

Note one of three sets of differential gears towards what would be 4 o'clock in a normal watch. As in Strehler's Zwei, differentials are an important part of the display mechanism. This one is linked to the power reserve. Looking at the back of the watch, we see a peripheral heart-shaped cam. This is connected to the satellite wheels in the differential that controls the hour display. The third differential is under the central cam and controls the minutes. The cams rotate twice a day and once an hour respectively. Pressing the crown presses a cam and forces the satellite wheels to return to their zero position. As they do this, through the action of the differential, they drive the display disc to the correct position to indicate the current hour, minute, or reserve. Each display will continue to record until another is selected.

H Moser & Cie, in its modern incarnation, was established in Schaffhausen in 2002 by Dr Jürgen Lange, ex-Technical Director at IWC. Lange had long nurtured the desire to create his own line of watches and managed to obtain financial backing to revive a company founded by a local 19th century watchmaker and entrepreneur, Heinrich Moser (see box). The distinctive movements for the new watches, presented for the first time at Basel last year, were largely designed and produced in prototype by Andreas Strehler, expressing concepts initiated by Dr Lange. Top of the range is the Moser Perpetual 1 and, not surprisingly, a remarkable perpetual calendar mechanism is among its special attributes.

The classic perpetual-calendar mechanism is controlled by a wheel that takes 4 years to rotate. Its radius varies in 48 steps around the circumference, one for each month. At the end of the month a system of levers 'feels' the edge of this wheel and controls the date change. The components of the Strehler/Lange system are far simpler than this, allowing an instant change

to '1' at midnight at the end of every month; Moser's patented 'Flash Calendar'.

Hamdi Chatti, Max Busser's successor at Harry Winston, was next in line to poach Strehler's talent - this time on the high-profile Opus project. Continuing the annual showcase of up-and-coming innovators, this year's seventh instalment has thrust Strehler into the spotlight at exactly the right time in his career. Like with Journe, Prezioso, Halter, Claret, Baumgartner and Greubel Forsey before him, Harry Winston has given Strehler full acknowledgement on the watch and in all its publicity (such behaviour is unfortunately quite rare). Knowing how stratospheric a path all their careers have taken, he can only benefit greatly from the famous 'Opus Effect'.

To support his work for Moser and Harry Winston, Strehler, after years of precocious but patient watchmaking, now has a new workshop at Simach, near Winterthur, with a staff of nine. The kite bugging has been put on hold. ○

Further information: Tel: +41 (0)52 223 00 88, www.astrehler.ch/eng/

H Moser & Cie watches are available in the UK at William & Son, 10 Mount St, London W1K 2TY, Tel: 020 7493 8385, www.h-moser.com
Harry Winston, 171 New Bond Street, London W1S 4RD, Tel: 020 7907 8800, www.harrywinston.com