

# The Fifth Element



In the 10 years since Chopard opened the doors of its 'LUC' *manufacture* in Fleurier, the industry has changed further and faster than anyone thought possible. So much so that the significance of Chopard's step into the, then, very select club of true *manufacture* watch houses has all but been overshadowed. So what is *famille* Scheufele doing to remain at the vanguard of a bustling industry? The answer is nothing less than a new automatic chronograph movement - the fifth calibre created entirely in-house in 10 years. LUC, it seems, has plenty more decades in it yet...

James Gurney

Turn the clock back to the early 1990s and you arrive at a time where CAD was yet to be fully exploited by movement designers, drilling and cutting machines had to be set up laboriously by hand, and few had even heard of spark erosion. Deciding to go into the business of making movements was a very large step - far more involved in terms of time and investment than is the case today. The machinery needed to set up an effective manufacture was both more expensive to acquire and more labour-intensive in operation than now. The question at the time was "why?" Chopard's jewellery division was growing quickly, while the watch side had a good if unspectacular reputation based on the use of top-level movements from the likes of Frédéric Piguet and Lemania. Why take such a large risk?

#### LUC 10 CF's Technical Specs

**Diameter:** 28.8 mm  
**Thickness:** 7.60 mm  
**Winding:** Self-winding in both directions; manually wound with crown  
**Number of jewels:** 45  
**Frequency:** 28,800 vph (4 Hz)  
**Balance:** 'Variner' variable inertia  
**Winding barrels:** 1  
**Power-reserve:** 60 h  
**Functions:** Column-wheel, vertically coupled, fly-back chronograph; stop seconds; small seconds reset  
**Minute counter:** Semi-instantaneous  
**Hour counter:** Dragging

(Above) New automatic chronograph movements are a very rare thing, making Chopard's 10th-anniversary LUC calibre even more special. Calibre LUC 10 CF is a column-wheel flyback chronograph, with patents pending for three innovations: (1) A lever that pivots three supple hammers, enabling optimal reset of the three counter hands. (2) Small-seconds reset, using the reset pusher at 4 o'clock with the winding-stem in the time-setting position. (3) Bidirectional self-winding with unidirectional gearing.



The first recipient of LUC 10 CF is Chopard's new white-gold Chrono One - issued for the 10th anniversary of the Chopard Manufacture in a limited 'pre-series' of 100 (price on application).



### Return to its roots

The Scheufele family had acquired Chopard some 30 years earlier, from Paul André Chopard - the grandson of Louis Ulysse, who first opened his atelier in 1860. The brand appeared in good health, with a new generation of Scheufeles beginning to pick up the reins from their parents and settling on the directions they would take the company in. The success of the jewellery business seemed assured under the leadership of Caroline Gruosi-Scheufele, whose careful courting of Hollywood-level glamour has propelled Chopard's profile to its current stratospheric heights. At the same time, watch production was coming under the

control of Karl-Friedrich Scheufele and it is easy to assume that he was not prepared to exist in his sister's shadow. There is a grain of truth in this as Chopard was beginning to be perceived as a jewellery house that also made watches - an impression that has persisted through the years even after the manufacture opened.

The decision was made and premises were found close to Michel Parmigiani's fledgling company at Fleurier (Parmigiani was instrumental in the early stages of developing the original LUC 1.96 movement). Machinery, including a shiny new spark-erosion unit, was installed and work began on the return to Chopard's

Chopard's *manufacture* and museum in Fleurier. Built in 1904, the building has always housed watchmaking enterprises, including Ebauches SA's movement blanks ('ébauches') factory. Having shared for four years, Chopard Manufacture finally bought the premises outright in 2000.



Heads down at the Chopard Manufacture, where, at last count, 108 staff are currently employed. Chopard's two other production sites are in Meyrin (Geneva) and Pforzheim in Germany - the site of the original Scheufele Company goldsmiths. Around 25,000 watches emerge from the Manufacture each year, including 3,000 bearing the 'LUC' label.

roots as a true *manufacture* under the guidance of two master watchmakers of impeccable credentials, Jean Frederic Dufour and Daniel Bolognesi. And it was as a true *manufacture* that Chopard was to be reborn - a guiding principle for Karl-Friedrich Scheufele. Chopard had had a glittering history from the 1860s onwards, which included several Observatory prizes, contracts to supply the Swiss railways and a reputation as one of the top-tier makers in Switzerland.

Despite the inevitable teething problems and a curious set of neighbours (Chopard Manufacture SA initially shared premises with the Lighthouse Church and music

rehearsal studios), the first movements, 1.96 and 3.96 (essentially the same, but the former completed in Geneva to *Poinçon de Genève* standards) were completed in 1996. The 'LUC' collection - named after Louis Ulysse Chopard himself - was launched on the market in 1997 to a very warm reception. Quite apart from the speed at which the project moved from idea to reality, Chopard's first movement garnered plaudits for itself. Relatively compact in size at 3.30 mm in height and 27.00 mm in diameter, the movement nevertheless incorporated twin spring barrels and a micro-sized winding rotor, giving the movement the advantage of a long, flat torque curve





and a resulting stability of rate. The twin spring barrels were able to hold 65-70 hours running time, half as much again as was usual at the time, and a feature that has been much copied since.

### Solid reputation

Over the intervening years, Chopard Manufacture SA has grown both in terms of space and in terms of the output of movements. In 10 years, it has taken over the whole building, virtually on a floor-by-floor basis, culminating in the purchase of the whole building, ironically enough from the Swatch Group. More importantly, there has been a constant output of varied new movements, ranging from the first tonneau-shaped movement with a micro-rotor, the Quattro with its four barrels and nine-day power reserve, a perpetual calendar, a tourbillon and even the sonnerie-en-passant Strike One. Along the way, Chopard has developed numerous technical innovations, not the least being the new Variner balance wheel developed, initially, for the tourbillon. The Variner has U-shaped weights built into the rim of the balance, which can be adjusted from above the balance, unlike conventional balance screws which must be adjusted from the side. The inertia moment can therefore be altered without removing the balance from the escapement assembly - particularly useful with a tourbillon.

The result of all this is that Chopard has a rock-solid reputation in watchmaking terms. The original LUC 1.96 has even been described as one of the finest

(Top) A family affair: Chopard Co-President Karl-Friedrich Scheufele, whose baby L.U.C. has been, cuts the ribbon at the new 'L.U.CEUM' museum above the Fleurier manufacture. To his left are his wife Christine; tenor and family friend Jose Carreras; Karl-Friedrich's Mille Miglia co-driver Jacky Ickx; parents Karin and Karl (President of Chopard since 1963); sister and Co-President Caroline Gruosi-Scheufele.

(Centre) The first watch to house the new, in-house LUC 1.96 calibre was the LUC 1860 - launched in 1997 and promptly voted Watch of the Year.

(Left) Connecting the 'sonnerie en passant' module to a base calibre, for this year's chiming LUC Strike One.



movements ever - a reputation that sits very comfortably with Karl-Friedrich Scheufele's discreet personal style. Whacky complications have just never looked likely to be part of the Chopard story and Scheufele is on record as emphasising careful, organic growth both in terms of the types of watch Chopard makes and the capacity to make them - although he does confess to a weakness for new machinery.

That the Chopard Manufacture venture is essentially a conservative slow-burn affair - in marked contrast to the Hollywood/Cannes glitter of the jewellery side - is immediately apparent from the design approach of the LUC watches: essentially classical, though, more and more frequently, with a twist. Certainly, the earlier watches were almost severe in their simplicity, but you

**Ten Years, Five Base Calibres**

**LUC 1.96** (1996) - COSC-certified and finished to Poinçon de Genève standards. A micro-rotor winds two stacked barrels ('Twin Technology') with power reserve of 65 h.

**LUC 1.98** (2000) - powered by two sets of two stacked barrels, providing 9-day power reserve ('Quattro Technology'). Coupled in series to provide a very constant rating regularity.

**LUC 3.97** (2001) - world's first micro-rotor-driven tonneau movement, derived from the 3.96 calibre apart from the mainplate and bridges. Equipped with 'Twin Technology' stacked barrels.

**LUC 1.02** (2003) - hand-wound tourbillon movement incorporating the Quattro Technology and Variner balance.

**LUC 10 CF** (2006) - new automatic chronograph.

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#### The Variner variable inertia balance

The Chopard Manufacture's Variner balance allows the balance's inertia to be adjusted *in situ*, without having to remove the whole assembly – an especially time-consuming task with tourbillons. Here, in the new LUC 10 CF calibre, three of the four U-shaped weights are visible on the edge of the wheel, that can be turned from above to redistribute their weight, unlike conventional screws that have to be adjusted from the side. The engraving on the balance bridge tells you which way to turn each weight – when lined-up in the 'target' hole – to increase or decrease the balance inertia.

(Left) This year's LUC Tourbillon Steel Wings sees the old rectangular tourbillon bridge replaced with a far more dynamic design meant to emulate a bird in flight. (Limited to 100 pieces in white gold; £56,570.)

(Centre) The LUC Lunar One posed a challenge for the Chopard Manufacture boffins in 2004: developing a self-winding watch with moonphase and perpetual calendar. The movement, the LUC 96 QP, was eventually based on LUC 1.96 base. (Red-gold model pictured; £25,340.)

(Bottom) For 2006, Chopard's award-winning Quattro Régulateur from 2004 has been given an aesthetic update. 'Tech', still based on the 9-day LUC 1.98 calibre, replaces gold with steel and features dial piercings similar to that of the Chrono One. (Limited to 250 pieces; £16,580.)



can quickly see more modernist elements emerge, such as the sans-serif 'Chopard' replacing the copperplate-style logo, and plain indices giving way to bolder Roman and Arabic numerals on the dial, culminating most spectacularly in the LUC Lunar One from 2005.

#### Haut de gamme

With the first decade completed, the celebrations made (in true Chopard style), where next for the LUC project? Well, much of the celebration was focused on the new chronograph movement, the LUC 10 CF. Initially known as the 'GT3' after the Porsche 911 variant, the design process was not officially underway until April 2005 (though many of the ideas incorporated had been formed earlier). The enduring success of the ETA/Valjoux designs has meant that new automatic chronograph movements are not exactly common and those that *do* emerge need to pack enough innovation to justify their existence. This being Chopard, meeting the innovation criteria has been a basic requirement, and the end result is a movement that meets expectations with ease.

Starting at the centre of things, the LUC 10 CF uses the Variner free-sprung balance described above – a decision by

Chopard that elevates the movement into the top echelon, almost regardless of the movement's other qualities. That this is a precision movement is further stressed by the inclusion of a return-to-zero device for the running small seconds – meaning that the time can be set to a reference with ease. As for the chronograph functions, these meet the accepted best standard by relying on a column-wheel controller that uses a vertical clutch coupling with the timekeeping train. This prevents the chronograph seconds hand 'jumping' when starting or stopping and damps the torque feedback into the movement's normal running. Less sensationally, but very practical in real terms, is a new system for winding via the crowns. By replacing the commonly used click-wheel system with a planetary gear, Chopard claims to have removed one of the most frequent points of lubrication failure in mechanical watches – a laudable claim if correct.

If the 10th anniversary of the Chopard Manufacture took place in an industry changed almost out of recognition, then the LUC Chrono One is the perfect watch to emphasise Chopard's status as a serious, *haut de gamme* volume producer with the size, resources and intention to be around for the long term. ○