

# PRIX GAÏA 2007

PRIX GAÏA 2007, PAUL GERBER

The year's *Prix Gaïa* is awarded to **Paul Gerber**, AHCI member and master-watchmaker from Zurich



## Paul Gerber Innovator by Heart

By Dr. Magnus Bosse, Vienna

It is with great joy that, today in the *Musée International d'Horlogerie*, I am able to pay tribute to a person whose work in the area of watchmaking not only often sets significant milestones, but is also characterised by an extraordinary degree of versatility. A versatility that is not limited to the area of complications, but which also extends to miniaturisation, chronometry and the not-to-be-underestimated aspect of diversion and horological wit.

Paul Gerber belongs to a class of master watchmakers who are not primarily interested in the watch as a luxury object or a fashion statement. He sees the watch as a technical challenge, an impressive creation in a microcosm world and an extremely worthwhile playground for his own imagination. Throughout his career, Paul has endeavoured to push technical limits and to put into practice what had previously seemed impossible.

This attitude is much valued by numerous watch manufacturers, who rely on his expertise to

come up with ambitious designs.

There are many exceptionally gifted watchmakers, and the history of the *Prix Gaïa* is a clear testimony to that fact. What makes Paul so well-liked among this group is his unassuming manner, his ability to remain down to earth and his typically mischievous wink, as though he almost wishes to apologise for his latest masterpiece.

To put it in other words, he is a person whose light step leaves a deep impression wherever he goes. But how should we interpret these tracks that he has left behind him? Paul has created extraordinarily complicated watches, watches with unusual dials, watches based on familiar movements and watches that have been created in their entirety in his workshop. Wristwatches, pocket watches and table clocks. Fabergé eggs, a mysteri



Examples of Paul Gerber's **Producing:**

Retrograde seconds hand



three-dimensional moon phase

Desk tourbillon

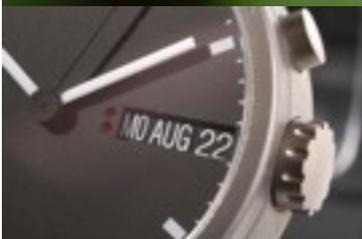
Double rotor automatic

Alarm function in a Valjoux 7750



Smallest flying Tourbillon in the world

Prototyping and modification to monopusher chronograph for the MIH Uhr



ous pendulette and double-rotor automatic systems. Retrograde second hands and three-

dimensional moon phases. He has entries in the *Guinness Book of Records* both for the smallest wooden clock and for the most complicated wrist-watch. At first glance, it is difficult to see a clear line or common theme that runs through Paul's work. The tracks of which I spoke seem neither originate from the same starting point nor to have a common goal.

I am convinced that the "mission" with which Paul is pushing forwards is not to be understood in this way. I would therefore like, if I may, to give you an unusual introduction to Paul that apparently has little to do with precision watchmaking.

**A little excursion into the world of control-line model flying!**

When Paul told first me of his passion for this unusual sport a few years ago, I didn't think much of it. It is a well-known fact, of course, that many brilliant characters suffer from some sort of eccentricity, so why not Paul? But slowly, I came to realise that it is precisely this which holds the key to interpreting his watchmaking.

So what is this control-line model flying? It is the flying of model aeroplanes that are built by the enthusiast and controlled by them. The elaborately-designed aeroplane flies in a circle, guided by a 20-m-long steel cable, powered by a combustion engine or electric motor and controlled by precise hand movements. It sounds a bit old-fashioned, doesn't it, in the age of high-tech communications technology and control electronics? A little bit like mechanical watchmaking, perhaps?

I think it's worth a closer look so we can see the surprising parallels. I would like to quote the Swiss Aeromodelling Association:

*"Good control-line models are sophisticated designs and their construction always presents an exciting challenge. Every stage of the work must be well thought out, correctly prepared and executed as perfectly as possible. Precisely, fastidiously and with a great deal of self-discipline."*

Even the flying requires a certain something:

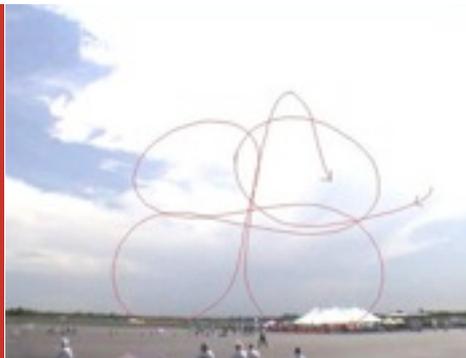
*"Each aeroplane communicates with the pilot in its own way. It moves in a certain direction, it accelerates, it vibrates, it lives. The control-line pilot knows exactly what is going on, because he has his hand on the controls of the aeroplane, which is constantly reacting to all the influences. He therefore feels even the slightest wind, each change in engine output and any construction defect, however small it may be.*

*Our aeroplanes are designed so that they can perform complex manoeuvres with the smallest rudder movement. However, this means that they must be controlled with the greatest of concentration at all times. Even if a flight only*

*lasts a few minutes, it is really quite demanding and always a brief trip into another world."*

So what are the challenges that apply to both flying and watchmaking? There are the following three:

Artistry and precision during **control-line flight**; Paul's own model



- *the mastery of craftsmanship*
- *the mastery of space*
- *the mastery of physical forces*

When we consider these three challenges, it becomes clear that mastery of both model flying and watchmaking separates the wheat from the chaff: the experienced pilot from the master of the air and the good watchmaker from the master horologist. The disciplines are therefore more closely related than they may seem at first glance. And something else is striking: in both fields, modern, electronic solutions have made the old, manually-demanding, elaborate methods obsolete. The control-line aeroplane is to model aeroplanes what the mechanical watch is to watchmaking.

Let's use these three challenges as an example to address how Paul's philosophy in watchmaking makes him so outstanding. Although, if I may anticipate myself slightly, I believe it is his unique combination of all three that makes the totality of his ability greater than the sum of its parts.

***"Paul expresses himself with a horological language which is not exactly a bold headline, but one which tells a complex story full of thrilling details."***

### **The mastery of craftsmanship**

Admittedly, it would sound a bit strange if nothing was said at the *Prix Gaïa* award ceremony about mastery of the manual principles of the profession. The oft-repeated statement that a watchmaker is master of his trade, I take as understood.

But, as with brushstrokes in painting, the fingerprint of the artist can also be seen in the craftsmanship of watchmaking. And that is particularly the case when, as in Paul's case, completely new movements are created from scratch under one roof. Only here does the creator's feel-

ing for perfection, aesthetics and skilful integration of the components into an all-encompassing whole become apparent.

It is entirely accurate to describe Paul as a watchmaker who has mastered all the steps for creating a highly precise mechanical timepiece. Building on a solid watchmaking apprenticeship, Paul perfected his skills and built on his knowledge, often through self-

study. Such as designing movements on the PC using modern CAD software and the subsequent manufacture using CNC equipment. Nearly all components can be manufactured in Paul's workshop: workpieces such as bottom plates, pinions, wheels, levers, springs and balances, but even dials, hands and much more. Uses are found for new materials and traditional ones are optimised. Paul has always believed in the complementary nature of modern technology and traditional craftsmanship and uses each where it seems sensible. He does nothing for his own ends and he is simply not interested in trends and hype.

Taken together, all this forms a horological language that is not an easily comprehended catch-line, but which tells a complex story full of exciting details and with its origins in holistic thinking and which - otherwise it wouldn't be Paul - is always told with joy and enthusiasm.

Let's take as an example the Calibre 33 wristwatch. At first glance, it is an ambitious and

pleasingly-made manual winding movement in an unusual tonneau case. Beautifully designed, precisely crafted and finely finished - these criteria will please many collectors. But there is much more to this watch: the wheels are made from a specially hardened rose-gold alloy and intricately finished, which lends it a certain appearance. The shape of the bridges follows the curve of the wheels and even the Côtes de Genève are worked out in such a way that, wherever possible, they meet the wheel axles in the centre. And of course, they are arranged at a 33° angle to match the name of the movement. The fact that nearly all movement holder screws are the same distance

from the case is just one example of Paul's love of detail. Remarkably, the diameters of the wheel set in the Calibre 33 are consistently larger than those in the familiar UNITAS 6497 pocket watch movement. It is said that Paul can use space that isn't there, but more on that later!

All of this has an impressive inner cohesion, a subtle logic which interprets watchmaking traditions for the modern world with intellectual depth and a slight irony. Recognising this is a good basis for understanding how Paul has mastered the second challenge of watchmaking.

**The mastery of space**

The assured feeling for space, the unbelievable freedom with which Paul works and the ability to find a way even with the greatest limitations are remarkable features in his work.

This freedom of movement that Paul has managed to create allows him to take on projects that are seen by most people as mad, such as the smallest wooden clock in the world, a modification of the widely-used Valjoux 7750 chronograph movement with an additional alarm function but no change in movement height, and the smallest flying tourbillon in the world. This tourbillon is part of a much greater work of art, the *"most complicated wristwatch in the world"*, as it is entered in the *Guinness Book of Records*.

At this point, I should mention that concepts such as *"the most complicated, the flattest, the most expensive, ... watch in the world"* really mean very little to me. Often, if you consider such items, it becomes clear that the driving force behind them was the quest for greater recognition and they are lacking the inner values that make the object interesting.

But not, however, when I consider this *"most complicated wristwatch in the world"*, because it embodies a special magic that is typical of the masterpieces of Paul Gerber. Let's first look at this watch in more detail:

The watch is based on a small pocket watch movement made by Louis Elysée Piguet in 1892, equipped with minute repeater, grande/petite sonnerie and hour, minute and second hands. In total, there were 491 parts, packed into 6.4 cm<sup>3</sup>, in a 32 mm diameter movement.

A hundred years later, in 1992, Francesco 'Franck' Muller, then a relatively unknown, but highly talented Geneva watchmaker, was able to enhance the movement with a perpetual calendar module with retrograde month, equation, week-day, date, 24-hour, leap year cycle and moon phase indications, as well as a thermometer, which he enclosed in a platinum wristwatch case with a

The Calibre 33 represents a milestone for Paul Gerber. It carries his **hand writing** like no other movement:

Extremely fine constructed and executed movement

Wheels made of 18 kt red gold

Geneva stripes in a 33° angle, intersecting with the wheels' arbors

Gears and escapement of the calibre 33 compared to the ones of an ETA 2898



Breguet-style dial. The case and dial still house the movement today.

With 651 parts, the movement was then unmatched in the contemporary horological scene and was the most complicated wristwatch in the world. Franck Muller thus achieved the fame that he still enjoys today.

However, the then owner, Lord Arran, wanted more and sooner rather than later. By his good fortune, he knew a certain Paul Gerber, master watchmaker in Zurich. Even though he had never attempted it, Paul and Lord Arran were convinced that Paul was not only willing, but also fully able to construct the most complicated horological feature in this watch: a flying tourbillon. The original balance was to be kept.

And after only 3 years, a proud Paul Gerber was able to present his new masterpiece: once again, this watch, now with 772 parts, was the most complicated wristwatch in the world and, along the way, had also gained the smallest flying tourbillon in the world.

The tourbillon design that Paul came up with for this watch was also used for designs ordered by other manufacturers and has been used by Paul himself for his table tourbillon design with an 8-day movement - the only table clock with a flying tourbillon.

Now, you would think that the story would end here. But the owner was keen to achieve a greater distance between his watch and the other grande complication watches on the market and commissioned Paul to implement a split-second flyback chronograph with column wheel for both the chronograph and rattrapante, as well as a 60 minute counter. Power-reserve indicators were also to be inserted for the movement and for the chimes.



She is regarded as the **most complex wristwatch** in the world: The Patek/Muller/Gerber ultra complication

This task kept Paul busy for a further 8 years. He constructed the required complications in the movement, which was not rearranged for this purpose. 265 additional movement parts had to be integrated, which, together with the case, comes to a total of 1116 parts. This means that the number of parts had more than doubled in the course of the enhancements. But even Paul Gerber cannot perform magic and he therefore had to make a new case back which allows for the larger chronograph mechanism. A ring around the glass back is engraved with the three horological artists: *Louis Elysée Piguet, Le Brassus // Franck Muller, Genève // Paul Gerber, Zürich*. The diameter of the movement has remained at a constant 32 mm throughout all the modifications.

With all the enhancements, the watch now has 5 additional hands and three additional push-buttons. Here is the impressive list of complications again to demonstrate the phenomenon that is this watch:

- *Hour, minute and second hands*
- *Minute repeater*
- *Grande et petite sonnerie*
- *Perpetual calendar with retrograde month, weekday, date, 24-hour and leap year cycle indications*
- *Equation indication*
- *Moon phase*
- *Thermometer*
- *Flying tourbillon*
- *Flyback rattrapante chronograph with jumping 60-minute counter*
- *Power reserve for movement and chime*

The entry of this watch into the *Guinness Book of Records* was richly deserved.

**“The most complex wristwatch in the world confronted Paul Gerber with very unique challenges:**

- **No construction plans as a starting point**
- **No space to accommodate the requested complications**
- **And: a unique item on which no mistakes can be made!”**

However, at the risk of repeating myself, it is not this record that makes the watch so exciting, but the way in which Paul responded to the special challenges that the project presented. I would like to discuss three specific examples, each of which called on Paul's sense of three-dimensional inter-relationships:

- *No construction plans as a starting point*
- *No space to accommodate the requested complications*
- *And: a unique item on which no mistakes can be made*

*No plans:*

As a watchmaker, you are in an enviable position if your task is to work on a precisely described and well documented movement. You take the technical datasheet and feed it into your CAD program, which you can then use to develop the desired mechanism. It is not necessarily easy, but certainly doable.

However, in this special case, Paul was confronted with a movement that was more than a hundred years old. At that time, movements were not mass produced as they are today and plans were often no longer available. So what to do? The task in front of him required CAD programs, so there was nothing for it, except to disassemble the movement and measure it to obtain the key data.

With a micro-meter measuring table, Paul managed to visually record the most important data using suitable reference points in a painfully precise process. These were extremely critical steps, as precision here would determine the success or failure of the entire conversion project. Paul not only had to take extremely precise measurements, but he also had to take into consideration the inaccuracies inherent in the measuring table in his design.

Using these measurements, he made design sketches of the various functional units and later transferred these into the CAD program. Not only the mechanisms to be fitted, but also the decorative elements such as the engravings were rendered using the CAD program.

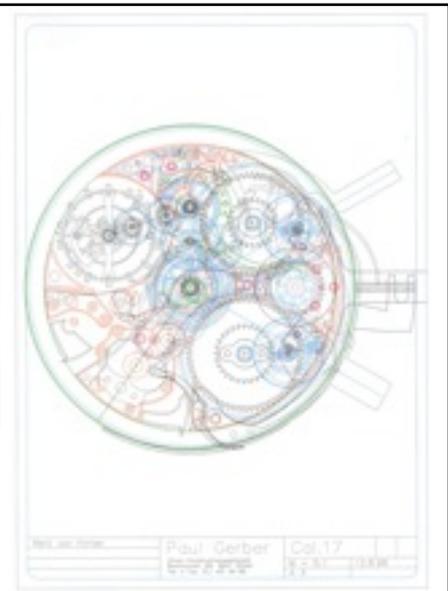
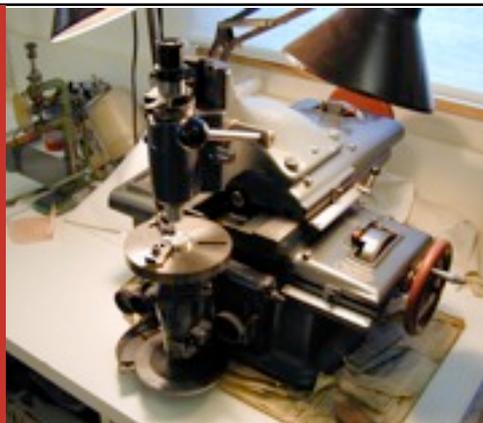
The computer not only helped with the design of the complications, but also with the assembly. Modern CNC machines were used to obtain the required precision for the parts. After the parts had been exhaustively tested for functionality and had gained Paul's approval, they were finished by hand and given their place in the movement.

**No plans available:**

Micro-Metering

To find usable place - a Paul Gerber speciality!

As complex as the watch: the construction plan





**A challenge without precedent, a delicacy for connoisseurs:**

The original case is still in use!



A jumping minute counter is regarded a mechanical marvel - here is its pure necessity



Ultra-flat column wheel of the split second mechanism



Outstanding complexity of the central axis: it carries the axes of hour and minute hands as well as of the chronograph's hands incl. split second hand, plus the cams of the minute repeater

ergy ratios are more favourable.

The requirement to keep the height of the movement dictated a particularly flat rattrapante control mechanism. The crown wheel, which is generally used in high-quality designs, is an octagonal rim wheel - an ingenious and aesthetically pleasing solution.

*No mistakes allowed:*

The fact that the Piguet movement is an irreplaceable piece unique was a tremendous burden on Paul's shoulders. Just one mistake in modifying the plates, for instance, and the movement would be lost forever. Paul was all too aware of his responsibility and did everything he could to be sure that his new complications were thoroughly tested and analysed before they found their way into the movement. He not only relied on his CAD drawings, his experience and his steady hand, but did something that you may recognise from the automobile industry: he built models and prototypes. He created dummy plates and, for example, tested the chronograph mechanism on them before he started milling the valuable mechanism (a "point of no return").

In this way, numerous corrections and improvements could be carried out in dry runs. For example, levers proved to be too weak or did not run smoothly enough. One change required another and, after several rounds of modifications, the final design was achieved. Nearly all the details of the design were able to be perfected in this way. The rejected parts could nearly have made a whole new movement!

*No space:*

Once Franck Muller had made the initial modifications to the movement, it was mounted in an elegant, classical case with a dial to match, both of which had been manufactured specially. It was desirable, then, that they should continue to be used for the watch. For Paul, this meant a further complication on top of the already extremely limited space: the additional mechanism had to be created so that both the case and the dial could be used in the finished watch.

This required unorthodox solutions to the problems. Take the jumping minute counter of the chronograph, for example. It is placed concentrically with the small second hand at the 6 o'clock position.

The jumping minute counter is not only a small mechanical bonus here, it is also the means to the end that makes the integration of the chronographs possible in the first place. It seemed to Paul that he could save more space and be more flexible by transporting the required energy by tiny levers, rather than a series of wheels.

The parts can be more complex, the design requires less space and, last but not least, the en-

Only once Paul was satisfied with a mechanism, did he begin with the most responsible task of all: milling out the holes in the plates and axles. Any mistake at this point would destroy the entire movement. It was only with his ability to concentrate, his perfectionism and his wealth of experience from his previous work that he was able to accomplish the task.

To complete the work, he was finally able to add his finishing touches. Paul showed respect for the work of previous masters here too by attempting to match the decoration of the original movements. As a small aesthetic touch, the reset heartpieces of the chronograph were skeletonised.

The extraordinary end product is now a work of art which demonstrates an almost superhuman ability. The aesthetics of the design and the expert execution - a pure, but complex expression of the "form follows function" approach - are testimony to the proverb "beauty comes from within".

No mistake possible: Paul Gerber **was prepared**:

Dummy plates, intensive test runs with prototypes, machining only after functional optimisation, modification of elements



I think it is precisely this which distinguishes the Piguet/Muller/Gerber watch from so many other world-beating achievements in the art of horology. It wasn't for nothing that Paul worked on this watch on and off for over 11 years. It was a period that was extremely arduous for him and riddled with all sorts of setbacks, and yet he was able to learn an extraordinary amount from it. Work on this watch would contribute much towards achieving a deeper understanding of technical principles and their significance in horological practice. An inquisitive soul like Paul cannot pass up such an opportunity!

And so, he set out on uncharted territory with fresh ideas.

**The mastery of physical forces**

If you analyse the new features that have been presented by established watch manufacturers in recent years, the trend for the manufacture calibre is hard to overlook. Alas, this often seems to serve no other purpose than to distinguish the watch from the competition. But for Paul that would certainly not have been sufficient motivation. An elegant concept for the escapement was his primary concern when he set out to develop the first wristwatch calibre to be designed entirely himself. The escapement section should be able to manage without any of those forces which Paul identified as responsible for holding back the development of even more precise movements: compression forces.

Why was this so significant? Paul explains it with an example: imagine you are in a garden during the potato harvest. All the potatoes are collected and placed in a crate. The crate is still on the ground and now needs to be moved into the house. An attempt to push it fails. You cannot manage it

until you try dragging it. This is a descriptive example of the differences between the effects of compression (pushing) and diverging (pulling) forces on the same object. It should not be taken to mean that compression forces should be avoided at all costs (the Swiss lever escapement proves that this is absolutely not the case), but Paul finds diverging forces more suitable for the delicate complex actions of an escapement.

That is why he wished to use only these forces in his new movement. Paul freely admits that the coaxial escapement by George Daniels impressed him, because it was the first time the theory had managed to be put into practice in a functional wristwatch. Paul saw it as a lighthearted challenge - almost a bet with himself - to come up with another escapement that used only diverging forces and, at the same time, had a centralised design for its components.

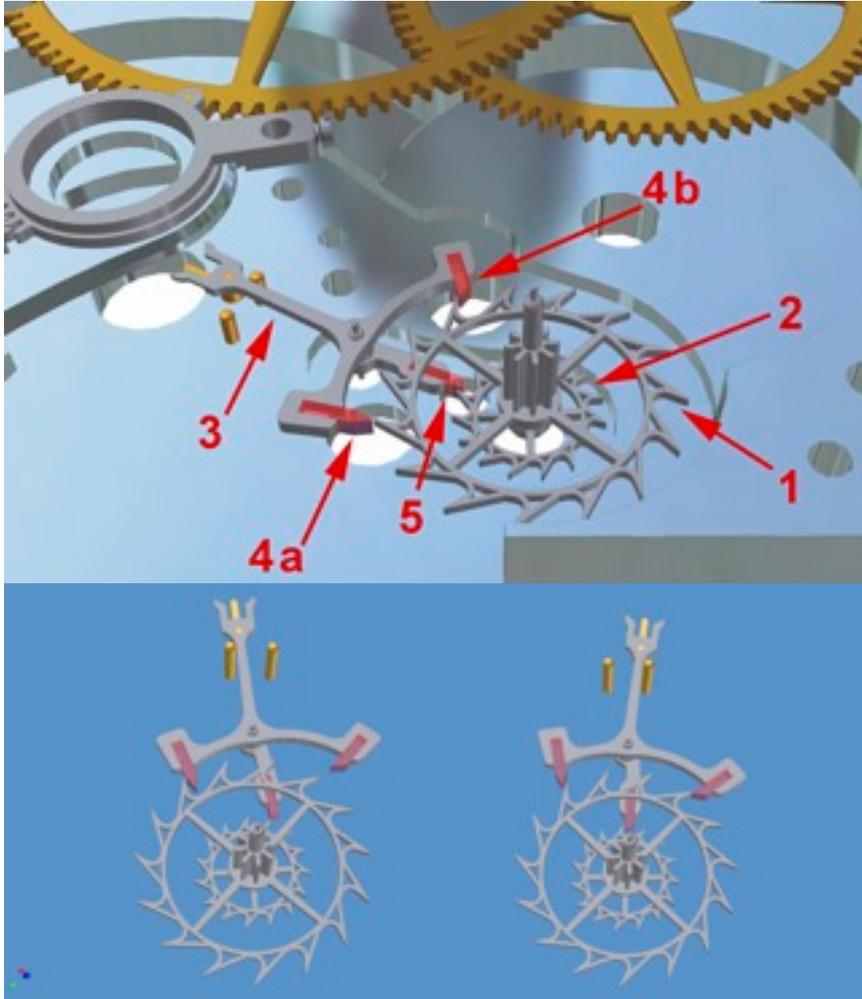
To achieve this, Paul Gerber had to separate the escapement wheel into the impulse and stop functions (see drawing next page). This is divided between two coaxially positioned, specialist wheels: one resting wheel (1) and one impulse wheel (2). The pallet fork (3) demonstrates this separation of function: it has three stones, of



which the resting stones (4a, 4b) act on the resting wheel and the impulse stone (5) acts on the impulse wheel. The latter drives the balance. This layout enables compression forces to be completely avoided in favour of diverging forces. The position of the escapement elements is also selected so that the impulses are always along a certain line between the escapement and pallet wheel.

pallet fork returns to the input position until the pallet wheel stops the input resting stone again and the sequence begins over.

I believe the intellectual elegance of Paul's design is obvious here. It is geometrically balanced and logically designed. The simple concept and the fundamental consequences of its implementation make this escapement particularly captivating. And, this being Paul, its theoretical benefits also prove themselves in practice.



The new escapement by Paul Gerber exclusively uses **diverging forces**:

Constituents and design

How it works: Entrance (left) and exit position (right)

The escapement wheel has two functional layers

For illustration purposes, I would like to break down the escapement process into the input and output position. In the input position (picture on the left), the pallet wheel is resting, because the input resting stones are blocking the resting wheel. The balance spring is tensioned and causes the balance to swing back. The resting stones drop away from the resting wheel and the entire pallet wheel, driven by the mainspring, jumps forwards slightly until it is stopped by the output resting stone.

This is now the output position (picture on the right), in which the balance swings back again and the output resting stone releases the resting wheel. The impulse wheel can therefore drive the impulse stone, supplying the pallet fork and balance with new energy. This movement can be clearly recognised by a large jump of the second hand. The



Easy to grasp: **compressing** and **diverging** forces

**And so we come to the end!**

My dear friend Paul! You have delighted us with truly impressive achievements, with a catalogue of work that includes nearly every horological discipline. Your years of enthusiastic work have redefined the limits of your profession with regard to aesthetics, technology and design. You have shown us the kind of extraordinary creations that can be produced when one's guiding spirit focuses its ambitions on one's work and not on oneself. You have wowed us with achievements which obey no strategic masterplan, but which herald your love of materials, your enthusiasm and your curiosity. These characteristics guide your career and your leisure time.

This is where the similarities between control-line flying and watchmaking come full circle for you.

On this note, Paul, I would like to congratulate you from the bottom of my heart on being awarded the *Prix Gaïa 2007* and, along with everyone else here, I wish you and us all many more "high-flying" years!

***"Innovations for their own sake are not sufficient motivation for Paul to endeavour!"***



You have created a freedom for yourself, within which you set yourself limits. You once told me that you didn't wish to prosper in the world of business, but rather in the world of watchmaking. This allowed you to devote yourself to all aspects of watchmaking: the craftsmanship, the creativity and the theory. And you know how to use this freedom - it is always surprising, always whimsical, always brilliant.

**About Paul Gerber:**

**Paul Gerber** was born in Bern in 1950, the capital of Switzerland. His father, a watchmaker himself, trained Paul as a watchmaker-rhabilleur. Paul Gerber lives in Zurich and has established his own watch construction company.

Ever and ever the brilliant and highly creative watchmaker Paul Gerber surprises with new developments of complicated mechanisms for his own watches, but also for the ones ordered by world famous watch brands. The wide range of horological masterpieces produced in his workshop comprises of a complicated miniature wall clock, a wristwatch with retrograde seconds hand and a double-rotor automatic winding system, an own novel escapement with diverging forces and finally a flying tourbillon and further complications, incorporated into an already highly complicated wristwatch based on a movement by Louis Elysée Piguet. Ever since this watch became the most complicated wristwatch of the world (Guinness Book of Records).

Paul Gerber's exceptional watchmaking art requires an excellent technical know-how as well as creativity and specific artisanal skills. Manufactures of this class are a synthesis of traditional handicraft and modern techniques. It is therefore Paul Gerber's desire and wish not only to create the designs on the computer, but also to work at the lathe by himself.

[www.gerber-uhren.ch](http://www.gerber-uhren.ch)

## The story of the *Prix Gaïa*

It was in 1993 that the curator and the directors of the *Musée International d'Horlogerie* decided to found a prize in homage to Maurice Ditisheim, one of the earliest patrons of the museum and a president of the board of directors of the Bureau de contrôle des ouvrages en métaux précieux. It was to be awarded to those who had, by their work and their studies devoted to the subject of time, promoted horology and its arts beyond the limits of national boundaries. Thus was born the Gaïa Prize.

The symbol chosen for the award is a translucent sphere which evokes Gaïa, a primordial power, the Greek goddess of the earth and the mother, by Ouranos, god of the heavens, of the Titans and the Cyclopes.

According to the version given by Hesiod in his *Theogony*, Gaïa was the first creature born of Chaos; she thus preceded Tartarus (the Underworld), Nyx (Night), Erebus (Darkness) and Eros, god of love and desire.

The model for the award is the work of Valérie Salvisberg, who won the competition organised by the Art School in La Chaux-de-Fonds.

These prizes, offered to craftsmen, historians, researchers and scientists, symbolise the *Musée International d'Horlogerie's* gratitude to and respect for those who have advanced the cause of horology, its history and its culture, which represent the museum's main areas of interest.

The prize winners are chosen by a jury composed of prominent figures drawn from the sphere of higher education, including representatives from both technical and academic institutions. The jury is presided over by the curator of the *Musée International d'Horlogerie*.

A member of the board of directors of the Bureau de contrôle des ouvrages en métaux précieux attends the meetings of the jury. The Bureau de contrôle des ouvrages en métaux précieux has always maintained close links with the *Musée International d'Horlogerie*, and sponsors the Gaïa Prize ceremony.

2003 witnesses a significant change in the prize rules:

Since 1993, it has been customary for the *Musée International d'Horlogerie* in La Chaux-de-Fonds to award three prizes on an annual basis. A working-group composed of former prize winners decided that the prize should henceforth be awarded every eighteen months, to coincide with either the spring or the autumn equinox. A further significant change is that only one prize will now be awarded. Nominations (to be submitted by a given date) will be invited; the details of the competition and the deadline for the submission of dossiers will be advertised in the press. The jury will be permitted, under exceptional circumstances, to award as many as three prizes.



### About the Author:

**Dr. Magnus Bosse** is molecular biologist. After completing his doctoral thesis and studies of international relations at the Viennese Diplomatic Academy, Dr. Bosse now works at the United Nations Industrial Development Organization (UNIDO) in Vienna in the field of biotechnology. Since his first serious encounter with horology, a vintage Dugena he bought at a flea market for about 1€, he is fascinated by the world of fine mechanical watches. He is particularly interested in the creations of independent watch-makers.

Magnus Bosse designed his own watch-related website, [www.ornatus-mundi.ch](http://www.ornatus-mundi.ch) (lat: beautiful harmony). Furthermore, he moderates the official Blancpain watch forum [www.Blancpainforum.com](http://www.Blancpainforum.com) and contributes regularly to the watch sites [www.thepurists.com](http://www.thepurists.com) and [www.timezone.com](http://www.timezone.com).

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