Ulysse Nardin

Key Points

- An early design drawing of the "sportive" Marine chronometer, made by **Raimondo Brenni**[1]
- **Carole Forestier**, who in **1998** received the 'Prix de la Fondation Abraham-Louis Breguet for her concept prototype of the carrousel central. Her idea entailed a large platform on which the entire movement turned within the watchcase, with the mainspring placed in the very limited space between the outer edge of the movement and the watchcase interior. Ulysse Nardin were very impressed by her work, purchased her patents and employed her at UN as a technical advisor to work out further details of her concept together with their engineers in an effort to develop a production ready model.[2]
- Dr. **Ludwig Oechslin**'s several experiments were to fill up the entire area under a concept testing movement with the largest mainspring possible, a mainspring that would be much more at home within a clock than a watch. The large mainspring gave excellent results with more than enough reserve energy.[3]
- The exterior designer of the FREAK is **Raimondo Brenni**[4]
- However, **Forestier**'s first major break occurred when she was working at Ulysse Nardin. She'd caught wind of a tourbillon competition held by Breguet and entered using a design for a watch with a mainspring that encircled the movement. In this watch, the movement rotated around its own central axis. At that time, creating a functioning prototype was untenable without current mainspring technology. But this watch did provide the basic blueprint for what would later become Ulysse Nardin's legendary Freak. After Ulysse Nardin, Forestier joined Renaud & Papi, and at the behest of the late Günter Blümlein, she (along with IWC's Denis Zimmermann) led the development team at Renaud & Papi that conceptualized IWC's extraordinary seven days power reserve automatic caliber 5000, featuring the Pellaton bi-directional winding system. She also had a hand in creating the Renaud & Papi designed hour striker module found in Ulysse Nardin's Hour Striker San Marco. At Renaud & Papi, she also worked on the chain and fusée mechanism for A. Lange and Söhne's Pour le Mérite tourbillon — the original perpetual calendar module used by A. Lange & Söhne — and developed Franck Muller's Tourbillon Imperial. But perhaps her greatest achievement at Le Locle was leading the team that created Audemars Piguet's extraordinary Grande Sonnerie.[5]

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1 http://web.archive.org/web/20150429122606/http://www.tp178.com:80/mh/un_pics/UN_Marine_Design.html

2 http://www.thepurists.net/Patrons/Members/BernardCheong/TheFreak/FREAK.htm

3 http://www.thepurists.net/Patrons/Members/BernardCheong/TheFreak/FREAK.htm

4 http://www.network54.com/Forum/201110/thread/1048315921/prequel+to+FREAK+report...Raimondo+Brenni

5 https://www.revolution.watch/the-most-powerful-women-in-the-luxury-watch-industry/?old-article

- In **1987**, Dr. **Ludwig Oechslin** and the new owner **Rolf Schnyder** launched a revolutionary astronomical wristwatch, the Astrolabium. Only three years later, the Planetarium followed, and in **1992** the Tellurium completed the 'Trilogy of Time'.To celebrate the twentieth anniversary of his purchase of Ulysse Nardin, Rolf Schnyder decided to launch the special edition of the exclusive Trilogy set.[6]

- And then, in **1983**, a new torchbearer appeared. The ailing company, reduced now to two employees, was purchased by the businessman and entrepreneur **Rolf Schnyder**, who, with his newly recruited master watchmaker **Dr. Ludwig Oechslin**, set about rebuilding Ulysse Nardin, and reinventing their reputation and values for a new century.[7]

- Mr. **Patrik Hoffmann**, and Mr. **Nelson Lucero**[8]

- Mr. **Schnyder** also shared with us the delightful story of how he and Dr. **Oechslin** met. "I had just started re-organizing Ulysse Nardin, and I was driving around Switzerland, going to all these watchmakers, looking for someone we could work with," he told us. "Finally, one day, I came into the workshop of **Jorg Sporing**, who is a famous watchmaker in Lucerne." "The first thing I saw, hanging on the wall, was an amazing wooden clock- an astrolabe clock. I thought it was absolutely fantastic, and I said, 'Who made this clock?' He answered, 'Crazy Ludwig!' 'OK,' I said, 'I want to meet Crazy Ludwig.' 'Well,' he said, 'you can't, he's away right now, but if you want, I'll call you when he gets back.'" "OK, so I went back home, went back to work, and then one day, I got a call. 'Crazy Ludwig is back.' So I jumped in my car, drove back to Lucerne, and there, he was. I pointed to the clock, and I said to him, 'I have just one question. Can you make this clock into a watch?' He looked at me and said, 'Who would want such a watch?' I said, 'I would want such a watch.'"[9]

- This experience perfectly fits the GMT Perpetual as well. When the watch was presented as the "Perpetual Ludwig" in **1996** (then without the GMT +/- mechanism), it was received with amazement. Never before a mechanical perpetual calendar had so effectively hidden its interior complexity behind an entirely window-based calendar display. Some were even taken aback by the watch's simple appearance, because then it was still a commonly accepted dogma that a complicated watch needs a complicated appearance, too.[10]

- Some interesting figures will certainly straighten the proportions: The GMT Perpetual's movement, the cal. UN-32, consists of more than 200 parts. What is barely known, is that only 52 of them are supplied by Lémania as a kit, which is far from being a "base movement". Of these 52, Lémania produces only 28 in their own factory, according Ebel/UN drawings, while 24 are again bought by Lémania from other suppliers, also according to the given plans. The latter is an equally unknown, but also very interesting fact. All other parts for the UN-32,

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[6] https://www.bonhams.com/auctions/21934/lot/83/
[7] http://web.archive.org/web/20070808165336/http://www.tp178.com/jd/UN/dinner-NYC-9-03/article1a.html
[8] http://web.archive.org/web/20070808165336/http://www.tp178.com/jd/UN/dinner-NYC-9-03/article1a.html
[9] http://web.archive.org/web/20070808165336/http://www.tp178.com/jd/UN/dinner-NYC-9-03/article1a.html
[10] http://web.archive.org/web/20060206231046/http://www.tp178.com:80/mh/un_perpetual/un_perpetual_1.html

are either produced by UN in-house, or are subcontracted to specialist suppliers, who produce them following the UN drawings.[11]

- On April 14 [***2011**, D*], one of the giants of the modern watch industry, Ulysse Nardin's **Rolf Schnyder**, passed away unexpectedly. Schnyder transformed a small company known for marine chronometers into an innovative manufacturer producing groundbreaking timepieces. Following Schnyder's passing, vice-president **Patrik Hoffmann** was appointed CEO. [12]

- In **1992** the manufacture completed the 'Trilogy of Time' with the Tellurium Johannes Kepler, a watch that tells time using a stunning interpretation of our constantly rotating planet. In 1993 Schnyder unveiled the Hourstriker San Marco, the fruit of his collaboration with technical wunderkind **Giulio Pap**i. In **1994** Ulysse Nardin shifted gears and focused on the creation of the world's most functional GMT watch. The GMT ±'s ease of use and pure simple logic has been a revelation to frequent travelers. Then in **1996**, on the 150th anniversary of his manufacture, Rolf Schnyder and Ludwig Oechslin raised the curtain on the world's most purely functional perpetual calendar. This amazing timepiece has all calendar displays synchronized and adjustable through a single crown. Because of its reliance on special epicyclical gearwheels rather than levers, this incredible watch can be quickly adjusted both forwards and backwards! In **1999** the perpetual calendar received the added GMT ± indicator. Incredibly, all calendar displays were synchronized to this local time indicator. To this day, Ulysse Nardin's perpetual calendars represent the high reference in watchmaking for this complication, a remarkable benchmark that has never been surpassed. [13]

- **Astrolabium Galileo Galilei**: This wristwatch was the first of the Trilogy series, which was introduced in 1985. Named after Galileo Galilei, this wristwatch is a tribute to his astronomical discoveries. This timepiece was the first in the world to have all of the following complications: time of day; perpetual calendar; moon phases; moonrise and moonset; sunrise and sunset; dawn and dusk; signs of the zodiac; and Solar and Lunar eclipses. The most complicated function is the ability of the watch to indicate the positions of sun, moon and stars, as seen from the Earth. Also shown on the dial is the Tropic of Capricorn. All of the numerous features of the watch are controlled through the single winding crown. Immediately after, due to its complexity as it was based on the astrolabe, it was featured on the cover of the Guinness Book of World Records as well as cited within the book. Galileo Galilei (1564 -1642) Galieo Galilei, Italian, demonstrated use of the telescope to discover that the planets had moons, the Moon had craters and the Sun had spots. He championed the idea that the planets moved around the Sun and supported this theory with his use of the telescope. His observations of the movements of the moons and the planets changed the notions of the heavens and influenced the future of astronomy. [14]

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[11] http://web.archive.org/web/20040718122322/http://www.network54.com:80/Forum/message?forumid=232632&messageid=1052823006

[12] http://www.watchtime.com/featured/ulysse-nardin-patrik-hoffmann/

[13] https://en.wikipedia.org/wiki/Rolf_W._Schnyder

[14] http://www.antiquorum.com/catalog/lots/ulysse-nardin-lot-20-101?browse_all=1&page=115&q=ulysse

- A virtually identical watch is described and illustrated by R. Meis in Le Tourbillon, p. 165.The watch with tourbillon carriage was an ultimate in precision timekeeping, during the 1920's and 1930's **James Ceasar Pellaton** was the most esteemed tourbillon maker. His work was sought after by the most prestigious companies, including Patek Philippe, Vacheron & Constantin, and, as seen by this example, **Ulysse Nardin**.[15]

- A watch designed to display, by means of indicators (7 to 10) several astronomical magnitudes. The indicators are driven by means of a planetary gear train (19) which is rotatingly supported by means of a ball bearing (20) within a support ring (11) of the watch. The drive force as well as the time reference are provided by a work (C) simultaneously driving the planet-wheel carrier (21, 22) of the planetary gear train and the gear clusters mounted thereon. Each of said clusters has a reduction ratio depending on the indicator (8 to 10) it is intended to drive. [*ca. 1985, patent astrolabium, D*][16]

- In the arrangement of this invention the position of the planets is displayed by means of a disc and rings concentric thereto, the display surfaces of which are arranged substantially in the same plane.[*ca. 1987, patent planetarium, D*][17]

- Swissbib search[18]

- When I visited the Ulysse Nardin factory in January last year [*2002, D*] , I noticed an interesting-looking watch on the wrist of **Pierre Gygax**, UN's technical director. Asked about it, he only disclosed that it is a prototype, undergoing "field testing".

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  In 2002, a new factoring facility has been established in La Chaux-de-Fonds, where prototypes and own movements are produced.

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  Then Mr. Schnyder turned to the new "Sonata", and mentioned that its development had started as early as 1997, based on the invention of Dr. Ludwig Oechslin, who for many years was the "genius" behind many of the most important products by UN. The legwork, however, was done mainly by the team, headed by Pierre Gygax and Lucas Humair.[19]

- Ulysse Nardin currently owns three manufacturing sites in Switzerland: two factory locations (the historic headquarters in Le Locle and additional manufacturing in La Chaux-de-Fonds) and dial maker Donzé Cadrans SA, which Ulysse Nardin acquired in 2011 as part of its long-term verticalization strategy.

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[15] http://www.antiquorum.com/catalog/lots/ulysse-nardin-lot-61-126?browse_all=1&page=100&q=ulysse

[16] https://www.google.nl/patents/US4711583?dq=ininventor:"Ludwig+Oechslin"&hl=en&sa=X&ved=0ahUKEwisof2N9pTVAhXHPFAKHcC6B_IQ6wEIVTAG [saved as US4711583.pdf]

[17] https://www.google.nl/patents/US4825426?dq=ininventor:"Ludwig+Oechslin"&hl=en&sa=X&ved=0ahUKEwjTlKaL-JTVAhXBalAKHcfqCyc4ChDoAQhTMAU [saved as US4825426.pdf]

[18] https://www.swissbib.ch/Search/Results?lookfor=ulysse+nardin&type=AllFields

[19] http://web.archive.org/web/20071027075408/http://thepurists.com/watch/features/mh/sonata/index.html

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Hoffmann was named CEO in 2011, but had joined the company in 1999 as the director of the U.S. operations, which is also in charge of Central America. A Swiss national, Hoffmann has worked in the watch industry since 1991.

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Executive vice-president **Pierre Gygax**, perhaps the most important link in Ulysse Nardin's chain in terms of new technologies – and one of the most intelligent and level-headed people I have the pleasure to know, a recurring theme among employees of the company – joined Ulysse Nardin in 1997 as its industrial manager. [20]

- But, perhaps for me, the biggest news was what could be called the semi-retirement of **Pierre Gygax** from Ulysse Nardin, effective as of July 1, 2015. He will remain an outside consultant for the brand he has devoted the last 18 years of his life to as well as for the committee that now oversees Sowind manufacturing (part of the Girard-Perregaux and JeanRichard package).

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  "I wanted to take part in this battle!" Gygax and his team developed a high-frequency quartz movement known as MegaQuartz, which beat at a frequency of 2.4 Mhz. That's 2,400,000 Hz – nearly 100 times faster than the 32,768 Hz of standard quartz movements. By comparison, modern mechanical regulators generally beat at 4 Hz.

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  "I had the task to step-by-step 'internalize' all technologies, skills, production capacities, quality management, etc. needed to insure the long-term life and development of Ulysse Nardin. This part being entrusted to me, Rolf was able to work with [now CEO] Patrik Hoffmann on the market side: distribution, marketing, subsidiaries, etc.," Gygax revealed in his affable way. [21]

- The one-of-a-kind astronomical pendulum clock — made in 1725 for Dorothea Farnese von Pfalz-Neuburg, the Duchess of Parma and Piacenza, and presented as a gift to Pope Leo XIII in 1903 — did more than tell the time; it displayed the positions of the sun and Earth as well as the phases of the moon. By the time Mr. Oechslin, an apprentice of the master watchmaker Jörg Spöring, arrived in Rome, the timepiece was badly in need of an overhaul. His work — which required him to dismantle nearly 1,000 parts, then repair and reassemble them — became the subject of a 1983 thesis that earned him a doctorate of philosophy and natural sciences in the field of theoretical physics from the University of Bern. The effort also established him, at the tender age of 30, as an éminence grise in the watch business.[22]

[20] http://quillandpad.com/2014/07/31/ulysse-nardins-ceo-patrik-hoffmann-comments-the-kering-takeover/
[21] http://quillandpad.com/2015/08/11/ulysse-nardins-r-evolutionary-pierre-gygax/
[22] https://www.nytimes.com/2014/03/27/fashion/watches-that-follow-the-stars.html

- It was due to a chance meeting that I discovered 10 years ago an enamel artist who has a small work shop in the Le Locle. This is where he restored primarily enamel dials of old pocket watches and wall clocks. It is then that I saw the potential to make the blue coloured baked enamel dials of our San Marco model. During one of my many meetings with the artist, he showed me an auction catalogue which contained a Patek Philippe watch with an enamel cloisonné dial made in 1958.[23]

- This is a online-version of a PowerPoint presentation that explains in detail the 21 functions of the Ulysse Nardin Astrolabium Galileo Galileo.[24]

- Thus was Dr. Oechslin's admiration for Bürgi's genius, that he suggested the new and second timepiece of the marvelous UN Trilogy of Time should wear the name "Castello", Italian for "castle", which again is what "Burg" (Bürgi) is in German. However, the decision was made to call it "Copernicus", which, according to Oechslin, is not entirely correct, since the watch does not display the Copernican system, but a geocentric system with Copernican orbits.[25]

- Sogenannte Wiener Planetenuhr[26]

- In minute repeaters or Sonneries, the striking sound is not caused by the small figures hitting a tone-creating device, like a bell. Rather its source are hammers hidden in the watch case, striking metal coils. Strictly spoken, the automatons on the dial are no real jacquemarts at all, they are "playback jacquemarts" at best.[27]

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[23] http://people.timezone.com/msandler/TZInterviews/UN/UN.html
[24] http://www.rogivue.com/xoops/modules/news/article.php?storyid=14
[25] http://webcache.googleusercontent.com/search?q=cache:BMBhHkOXIAEJ:www.network54.com/Forum/232632/message/1081262606/Why%2Bthe%2BPlanetarium-%2BA%2Bpersonal%2Bnarrative%2Band%2Bexplanation+&cd=1&hl=en&ct=clnk&gl=nl
[26] https://www.khm.at/objektdb/detail/87045/
[27] http://www.watchprosite.com/page-wf.forumpost/fi-17/pi-3897896/ti-622141/s-0/t--jacquemarts-little-big-men-striking/