Creative Swiss Watchmaking: a mix of art, industry and marketing.

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SHORT BIO

PhD in economics, François H. Courvoisier teaches marketing in several schools of management; he concentrates his research in watch marketing, cultural and territorial marketing. He has written and published several books in marketing and many articles on watch marketing and culture marketing in international journals.

ABSTRACT

This research describes how and why Swiss watchmaking, started as craftsmanship in the 16th century and then a "proto-industry" in the 18th century, while continuously developing and obtained the label "Swiss made", earned the worldwide reputation of a creative industry. Since the "quartz crisis" of the 1970s, when mechanical watches almost "died", the industry re-emerged and continued to develop with a new basis, thanks to a well-balanced mix between art, industrialisation and marketing. This research explains how successful Swiss watch brands continue innovating and bringing mechanical and aesthetic emotions to their customers, taking inspiration in both heritage sources and new technologies (e.g. materials, microtechnics, production, digitalisation) to play with a harmonious mix of Art, Industry and Marketing. In the last decade, this combination also allowed new watch brands to increase and develop successfully amongst the 200 "Swiss made".

KEYWORDS

Watches, culture, art, industry, marketing

Introduction

Currently acknowledged as a leading activity worldwide, the Swiss watchmaking industry has a long history and heritage since the 16th century. Without a doubt, it is one of the most ancient and representative artisanal and then industrial activities of Switzerland (Donzé, 2009), in addition to the manufacturing of machines, tools, pharmaceutical products and chocolate.

The first mechanical clocks, mainly tower clocks, appeared around the 14th century in China and in Europe, mainly Germany, France and England. In Geneva, watchmakers and jewellers started to develop a flourishing business during the 16th century in a traditional way based on craftsmanship (Hainard, 2008) until the reformation of the Catholic Church. The reformer Jean Calvin, a disciple of Martin Luther and Guillaume Farel, banned all visible signs of wealth (jewels, watches, etc.) from the city of Geneva around 1540. This fact provoked the emigration of many craftsmen to the regions of the Jura Mountains, particularly in Vallée de Joux (canton of Vaud), then in the towns of La Chaux-de-Fonds and Le Locle (canton of Neuchatel) and in the county of the Jura.

After the revocation of the edict of Nantes by Henri IV in 1685, a great number of French protestant citizens emigrated to Switzerland and settled down in the same regions of the Jura Mountains reinforcing the number of craftsmen already active in the jewellery and watchmaking activities. All of them gradually developed small workshops on independent farms¹. In 1870, the city of La Chaux-de-Fonds produced twice as many watches as the city of Geneva: therefore Karl Marx (1872) qualified that city as "the only watch manufactory" (die einzige Uhrenmanufaktur).

The purpose of this research is to explain how this important current economic sector: approximately 60'000 employees in Switzerland generating a export turnover of 20 billion euros (FHS, 2019), evolved from a craft to a mostly organised industry, combining successful art with unique high-end pieces, with industrialisation came more affordable and popular watches (for example the symbolical Swatch since 1983) and marketing techniques to develop markets worldwide.

Art creates beauty, outer design of the watch, as well as the inner movement is the core of all emotions. The watch industry achieves what art has conceived: it allows craftspeople to promote their unique know-how and quality of their works. Marketing is openness to the world, the observation and listening of consumers' wishes and needs and eventually the exchange of value between the watchmaker's proposals and the customer's expectations (Zorik, 2007). With chocolate and cheese, watchmaking is one of the only industrial sectors in Switzerland, which has direct contact with the final customer (B2C) as opposed to machine manufacturing or the production of microtechnic products sold to other intermediary businesses (B2B).

Methodology

The methodology used for this research is based upon a literature review of academic and professional sources combined with testimonials of different watchmakers, from independent ones (small businesses) to managers of MNCs, e.g. Swatch Group, Richemont, LVMH and Kering. In addition to this, we have regularly visited the main watch fairs in Switzerland, i.e. SIHH (*Salon international de la Haute horlogerie*) in Geneva and Baselworld to make our observations and reflections.

Historical Background

As mentioned in the introduction, watchmaking activity in Switzerland started on a very individual and artisanal base: all pieces were unique and made by individual watchmakers or small corporations which were inspired by models coming from London and Paris, thanks to travellers. In the canton of Neuchâtel, historians located the implantation of watchmaking with Daniel JeanRichard (1665-1741), a peasant in Le Locle, who repaired the watch of a rich traveller and made a copy of it before giving it back to its owner (Blanchard, 2008). As he was able to manufacture several watches based on this copy, JeanRichard is considered to be the first *paysan-horloger*.

Établissage (untranslatable French word meaning the organisation of the early production of watches based on individual businesses) is the first form of organisation between independent specialised makers of watch components and assembly workshops: this is named "proto-industry" by historians (Donzé, 2009). This form of "half handmade production", with rudimentary tooling, evolved slowly until the second part of the 19th century, but in this period production grew dramatically. For example, in 1870 in the city of La Chaux-de-Fonds only, there were more than 1,300 watchmaking workshops and the total number of exported watches was over 2 million (Donzé. 2009).

However, during the 1860, competition from the American watch industry was already very industrialised, competition became tougher and started to seriously threaten the leading position of the Swiss watch proto-industry. Therefore, during the world exhibition in Philadelphia in 1876, Swiss

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¹ The region of Jura Mountains, from Geneva to Basel, has an average altitude of 800 to 1,000 m. Agricultural activities are not possible in winter due to the snow: therefore most of the inhabitants were peasants in summer and watchmakers on their farm in winter. In French, they are called *paysans-horlogers* (Jelmini, 2007).

watchmakers delegated two personalities, Jacques David (Longines watches) and Theodore Gribi (Borel & Courvoisier watches) to observe the American watch factories with the mission of bringing back detailed information on their production system. They were so fascinated by the mechanisation of the American watchmakers, especially the Waltham and Elgin watches, that they wrote on the first page of their report the famous words: "Gentlemen watchmakers, wake up!".

This report kicked off the modernisation and industrialisation of the Swiss watch industry: decentralised workshops of independent watchmakers in the countryside progressively moved to factories concentrated in cities (Le Locle, La Chaux-de-Fonds, Bienne, Granges) with a precise division of tasks for the workers. However, this did not lead to an industrial concentration of the sector, either vertically or horizontally, which remained relatively atomised. This is explained by the will of maintaining family businesses organised into a type of "industrial cluster". In 1901, there were 600 companies employing 25,000 workers and this figure grew in spite of a slow down during the 1st World War to 1,100 companies and 48,000 workers in 1929 (Donzé, 2009), just before the Wall Street crash and the following world crisis.

This deep economic depression obliged the Swiss watchmakers to concentrate their efforts in an association called "the Watchmaking Convention" (a form of cartel) established in 1928, which grouped together the manufacturers of finished watches, movements and spare parts. The main requirements of this association were the obligation for its members to respect minimal official selling prices and the ban of exporting unassembled watches (Donzé, 2009).

Unfortunately, there were many dissident actors: to remedy the weaknesses of the atomised production system so far, the watchmaking industry created in 1932 a "super-holding": the ASUAG (*Allgemeine schweizerische Uhrenindustrie AG*) with the support of many Swiss banks and the Swiss government to save the interests of the branch versus competition, in concentrating the competences for manufacturing the motor of the watch: the movement.

Concerning finished products, two companies merged in 1930: Omega and Tissot in order to create the SSIH (*Société Suisse pour l'industrie horlogère*), which later acquired many other watch companies. Both industrial poles of ASUAG and SIHH reinforced their influence, while many smaller independent companies went to bankruptcy. However the Swiss watch industry overcame the 2nd World War and developed positively in the "20 glorious years" (1950s-1970s), thanks to a sustained worldwide demand. Until the end of the 1960s, all watches were equipped with a mechanical movement, with either self winding or automatic.

In 1967, in Neuchâtel (Switzerland), a scientific laboratory: the CEH (Centre électronique horloger) developed a new timekeeper equipped with an electronic movement: the quartz watch, which is more precise and more affordable to produce than a mechanical one. However, most Swiss watchmakers did not believe in the commercial potential of this innovation, as opposed to Asian competitors (Casio, Citizen, Seiko), which seized the opportunity to win big volumes in the low end of the world watch market. This is the so-called "quartz crisis" which provoked a brutal slowdown in the sales of mechanical Swiss watches and caused a high effect of lay offs at the end of the 1970s. The number of employees in the watchmaking industry dropped dramatically from 89,000 to 47,000, and the production of finished watches dropped from 84 million pieces in 1974 to 31 million in the middle of the 1980s (Donzé, 2009): Therefore Hong Kong and Japan became the most important watch producers worldwide.

At that moment, Swiss watches were seen as too expensive, suffering from a limited rationalised production system, and moreover from a lack of coordinated marketing strategies worldwide, particularly in the important North American market (Donzé, 2009). Additionally, after the end of the monetary system of Bretton Woods, in 1973, the Swiss Franc became more expensive, it became a "safe heaven", compared to other key world currencies such as the American Dollar, the British Pound, the Deutchmark and the French Franc.

At the beginning of the 1980s, both industrial groups ASUAG and SSIH faced a decrease in their sales, mainly due to old production processes and to products no longer corresponding to market needs. Both groups needed financial support of the banks UBS and Credit Suisse, which hired the consultant Nicolas G. Hayek to restructure them. His first decision, in 1983, was to merge both companies into a new single entity: the SMH (*Société suisse de microtechnique et d'horlogerie*), which became the Swatch Group in 1998 (Donzé, 2012). Then Hayek acquired the majority of the shares and in 1985 was elected President and CEO of the new group.

Hayek's vision was to implement a new industrial policy to relaunch the Swiss watch industry and beat key competitors: Timex (USA) and Seiko (Japan) by putting marketing before production because the quartz revolution allowed many newcomers to manufacture affordable watches, therefore the challenge was not producing watches, but selling them (Donzé, 2009). In 1983, the plastic watch Swatch was successfully launched and positioned as a cheap and trendy mass product, with two collections a year and special colourful designs. The profits derived from the Swatch success were reinvested to reinforce the industrial basis of the Swatch Group, the company ETA (*Manufacture horlogère Suisse SA*), to develop Longines, Omega and Tissot and to acquire other companies present in high-end market segments, such as Breguet, Blancpain, Glashütte and later Harry Winston. In 2019, with 18 watch brands, a turnover of 8 billion euros and 37,000 employees, the Swatch Group is the leading watch manufacturer worldwide, covering all market segments from children' watches to *Haute horlogerie* (high-end watchmaking) with sophisticated designs and mechanical complications (Swatch Group, 2019).

Key actors and key figures of the Swiss watch industry

Apart from the Swatch Group, other key actors are four groups: Wilsdorf Foundation (Rolex and Tudor), LVMH (with Hublot, TAG Heuer, Zenith and Bulgari), Richemont (mainly with Cartier Jaeger-LeCoultre, IWC, Panerai, Roger Dubuis, Piaget, Baume & Mercier) and Kering (with Girard-Perregaux, Ulysse Nardin). All five groups produce approximately 80% of Swiss watches. The remaining 20% is made by independent family businesses, such Audemars Piguet, Chopard, Franck Muller, Raymond Weil, Oris, Mondaine, including smaller independent brands, many of them younger than 20 years old, for example Greubel Forsey, Richard Mille, MB&F, Raymond Weil and HYT.

Approximately 90% of Swiss watchmakers are members of the FHS (*Fédération de l'industrie horlogère suisse*), with about 200 companies permitted to put the label "Swiss made" on their dials and cases. The remaining 10% is a group of brands mainly producing low-end quartz watches. In 2018, the Swiss watch industry employed 55,000 people in 600 companies (brands and subcontractors), which produced 24 million watches, which consisted of electronic watches (68% in quantity and 18% in value) and mechanical watches (32% in quantity but 82% in value), for a total export value of 20 billion euros (FHS, 2019): with the distribution margins, this business represent a global value of approximately 60 billion worldwide.

The six revolutions of the revival of the Swiss watch industry

The invention and industrialisation of quartz watches was simultaneously a crisis and an opportunity for the Swiss watch industry. The existing groups and brands in the 1980s were obliged to completely rethink their strategies. Firstly, only the powerful Swatch Group was able to face the American and Japanese competitors financially and industrially, thanks to new marketing concepts and models. We have identified six contemporary revolutions, which explain this revival: they did not appear chronologically, but simultaneously or in a different order for certain brands. The newcomers, i.e. new brands created in the 1990s and in the 2000s, are particularly remarkable from this point of view: being actors of these revolutions, they were able to define a very distinctive positioning.

The Swatch, launched in 1983, was the first revolution: a case in plastic as opposed to traditional stainless steel cases, a new type of construction (electronic movement assembled automatically on the bottom of the case), a new marketing concept: therefore Swatch was positioned as a fashion accessory

and not a timekeeper. Its affordable price, at around 50 euros for the basic model was quite competitive. Thanks to a tight network of self-own boutiques (the Swatch stores), this product line became a winner in a couple of years (appendix 1). Although no official figures exist, specialists estimate that over 600 million Swatch have been sold since 1983 (Eschmann, 2017).

The second revolution is linked with materials: most mechanical watches were traditionally made of stainless steel and brass, and high-end products had a silver or gold case. Brands such as Audemars Piguet, Hublot, Richard Mille and Rado (appendix 2) developed products with new materials, such as platinium, titanium, aluminium, invar, tungsten, zirconium, sapphire, carbon fiber, ceramic, silicium (Chokron, 2013) or new alloys like the unscratchable "hublotium magic gold" made with a mixture of gold and ceramic.

The third revolution is called "skeleton watches" or "strip tease". Until the 1990s, the dial and the back of the case hid the mechanical movement for the vast majority of watches. In order to show the subtlety of the movement, its mechanical complications and decoration, many watchmakers opened the dial or simply did not place one between the movement and the hands. If the back of the case is opened as well, this allows to see through the watch and to discover hidden components. This is particularly relevant for watches equipped with a *tourbillon*. Pioneers in this revolution are Richard Mille, Audemars Piguet, Cvstos, Zenith and Corum (appendix 3).

The forth revolution is "unconventional design". Watches, mechanical or electronic, are usually round with hands that turn circularly around a central axis. In order to be distinctive, certain brands used different shapes. For example: square (TAG Heuer Monaco), barrel (Franck Muller, Richard Mille), triangular (Hamilton), rectangular (Jaeger-LeCoultre Reverso) or even with quite a different shape, for example Cartier Crash Watch and MB&F Horological Machines (appendix 4).

The fifth revolution is named "destructured hours", because time is no longer displayed with classical hands, but with other systems. The young brand Urwerk, launched in 1987, may be considered today as the initiator of a trend which has almost turned into a watchmaking school of thought (Daveau, 2014). Urwerk introduced its innovative vision featuring an original display with rotating satellites (appendix 5). Other examples in this category are MB&F, Cabestan, Hautlence and Rebeillon, or the surprising HYT, displaying time with liquid circulating in glass tubes.

The sixth revolution is the return to "métiers d'art" emphasizing handicraft and manual decoration such as engraving, angling, enamelling, chamfering: Vacheron Constantin, Jaquet-Droz and Van Cleef & Arpels (appendix 6) are the leading actors in the revival of watch decoration, because in the 1980s the quartz crisis caused in the 1980s a considerable loss of know-how and young people were no longer attracted to artistic jobs in the watch industry.

Did smart watches bring a revolution to the Swiss watch industry? From our point of view not really, because their technology is based on quartz movements. Their chips are linked with sensors placed on the body and connected to a mobile phone. In fact, one of the first connected watches was the Swatch Access, launched in 1985, which allowed its owner to use it as a ski pass in a resort. In 2015, several Swiss smartwatches were launched at Baselworld, for example: The TAG Heuer connected Carrera, the Breitling B55 Exospace (appendix 7), the Frédérique Constant Hybrid to compete with the Apple iWatch.

Art as a distinctive positioning of Swiss watches

From the 16th century, watches were made by hand and were considered to be luxury products, rare and expensive. Handicraftsmen produced them one by one, slowly, sometimes after having been paid by subscription. For example, Abraham-Louis Breguet presented his models to the royal courts of Europe (mainly France and Russia) before manufacturing them piece-by-piece.

Indeed industrialisation created reduced production and manufacturing costs on a broader scale: therefore watches became mass products at the turn of the 1900s. However after the quartz crisis of the 1980s, many brands were unable to compete with American and Eastern brands equipped with quartz movements: therefore Swiss watchmakers took the opportunity to rediscover complicated mechanics and sophisticated designs decorated with ancient know-how thanks to a demand coming from connoisseurs. Since then, the Swiss watch industry tended to concentrate its strengths on luxury and Haute horlogerie, skillfully mixing art and marketing on a robust industrial basis including specialised subcontractors of spare parts and pre-assembled movements. According our observations and interviews, we can distinguish four different aspects of relationships between art and watchmaking (Bashutkina & Courvoisier, 2019).

The art of mechanics

The first identified aspect represents the deepest "infusion of art" which we call art of mechanics. In this case, from creation and design to the finished product, the watch is imagined as a mechanical sculpture. Excellent current examples are the "horological machines" created by the independent brand MB&F. After a career debut at Harry Winston's (now one of the 18 brands of the Swatch Group), Maximillian Büsser, a science fiction fan, created his own company in 2005 and developed watches, which look like starships. He considers watchmaking creation as an art, which he exhibits in major watch fairs and in three galleries located in Geneva, Taïpei and Dubaï, named "MAD Galleries" (Mechanical Art Devices Galleries). These galleries offer a fascinating universe of "cinetic art" where watches are exhibited near other types of sculptures (appendix 8).

Contrasting with the futurist imagination of MB&F, the brand Jaquet-Droz produces other kinds of high-end watches. Before its acquisition by the Swatch Group, this brand became famous thanks to its heritage and its craftsmanship including moving sculptures in its watches, such as bell watches animated by birds or characters, most of the time enamelled by hand. The heritage of Jaquet-Droz comes from the 18th century, when Pierre Jaquet-Droz and Jean-Frédéric Leschot built several complex mechanical dolls called "automata", which are still functional today in the Museum of Neuchâtel. They are able to draw, write and play the piano. To a certain extent, they can be considered as the ancestors of many actual "robots". The amazing mechanisms of Jaquet-Droz fascinated the crowned leaders of the world, such as kings and emperors of Europe, India, China and Japan. They were the fundamentals of the reputation of Swiss watchmaking, long before the label Swiss Made existed.

Nowadays, there are some independent watchmakers who are specialised in manufacturing sophisticated automata. The most well known is François Junod, in Sainte-Croix, who develops his own creations: for example the writing automaton Pouchkine (appendix 9) for a private collector. Junod also works part-time for Jaquet-Droz (a brand of the Swatch Group).

Artistic co-creation

This category corresponds to the joint creation of a new model of watch due to the collaboration between a brand and an artist. One emblematic example is the "Art Piece One" co-created with the watchmakers Robert Greubel and Stephen Forsey in association with the British artist Willard Wigan, well known worldwide for his micro-sculptures. Wigan designed and put into the crown of the watch a sculpture representing a sailing ship no greater than a grain of rice (appendix 10). This work has been exhibited at the Time Art Gallery in London, then at the Art Fair of Shanghai and at the *Foire d'art contemporain* in Paris. The brand Greubel Forsey was created in 2004 and produces about a hundred high-end watches annually priced from 250'000 euros. Lately the founders have started to collaborate with different artists with a programme called "Art Pieces", in order to integrate much more art to timekeepers: Art Piece Two was designed in memory of the French artist Robert Filliou, well known for his art of engraving.

We expand this category to another type of artistic collaboration when a famous artist is associated with the creation of a unique piece or a limited series of watches. Here we mention the French fashion designer Jean-Charles de Castelbajac, who decorated a series of Swatch, and the Brazilian painter Romero Britto who took part in a special realisation of the iconic Hublot Big Bang "Classic Fusion Enamel Britto" decorated with a "big fire enamelled" dial designed by the artist (appendix 11).

Artistic installations and events

The world's biggest watchmaking fair Baselworld is a good example of a platform where contemporary art is showcased through many luxury brands. In the remarkable 2017 edition for the infusion of art into watchmaking, we observed an event with a live artist painting *graffiti* (tags) on the front of the TAG Heuer booth. In a next booth, the artist Elisabetta Fantone also painted live for Corum, her creations inspired the brand to design coloured dials (appendix 12). Later the same year, Corum invited other artists to let their creativity go on dials on the model Bubble, which gave surprising results. Finally, in 2018, Corum launched its "Op Art collection", with dials decorated by the Swiss artist Nicolas Le Moigne.

Hublot, an *avant-garde* brand known for its slogan "Art of fusion", uses all forms of art and collaborates with different artists in visual arts and also in performing arts. In Baselworld 2017, a "Hublot Depeche Mode watch" was presented with a live performance of the band Depeche Mode at the press conference, followed by a concert at a private party. In 2018, to celebrate the 55 singles produced by Depeche Mode during their career, Hublot organised a sale with 55 Hublot Big Bang Depeche Mode in Milan in favour of the non-profit organisation "Charity:water". The slogan "Art of fusion" can be understood in two ways: the art of merging materials (for example: gold and rubber, or titanium and fabric), but also the fusion of art with watchmaking, not only with Depeche Mode, but also with the Chinese pianist Lang Lang and the tattooist Maxime Pleschia-Büchi (appendix 13).

Artistic crafts ("métiers d'art")

The application of various craft techniques to the design and decoration of luxury timepieces is not a new phenomenon. Since the introduction of the watchmaking activities in Switzerland in the 16th century, watch designs have been strongly influenced by art. Many Haute horlogerie brands, such as Patek Philippe, Vacheron Constantin and Cartier, have been involved in the art world for decades. Cartier in particular has drawn most of its inspiration from its long and rich heritage as a jeweller, its historical core business.

The term "craft" connects very well to the two notions of know-how (the craft) and the way to achieve an aesthetic goal (the art). The decorative arts used in watchmaking have recently been rediscovered and promoted, even though they risked completely disappearing after the "quartz crisis". The decoration techniques of watches, engraving, chiseling, "guillochage", "perlage", "soleillage", gem setting, enamelling, marquetry, etc. are various (Roulet, 2009). The most beautiful results are obtained by handwork on unique pieces and limited series of watches.

The rise in popularity of fine craftsmanship on watches corresponds to the desire of customers to differentiate, by owning exclusive watches that other people do not have. Therefore the craftsmanship is a real opportunity to show the exceptional skills and creativity of artists highlighting a brand not only with fine mechanics, but also with remarkable aesthetics. Both Vacheron Constantin in Geneva and Cartier in La Chaux-de-Fonds have set up workshops on their premises so that the former "artists of decoration" can pass on their invaluable know-how to the youngest apprentices. In 2016, the "Campus of Haute horlogerie" was inaugurated in Meyrin (Geneva) by the Richemont Group, for all its brands to perpetuate the knowledge of crafts mastery in training and certifying future handicraftsmen and women (Aloui, 2016).

Strategy of unique pieces (talking pieces) and limited editions

Unique pieces, talking pieces and limited series of watches, mainly numbered, are a form of "niche products", i.e. a narrow customer segment with specific needs (Kotler et al. 2015), which is profitable if customers are willing to pay a higher price when the product is exclusive and corresponds precisely to their wishes. The product manufactured in limited series is often positioned on the market as a collector's item, targeted to specific expert customers who are looking for emotions (Ezan, 2005). In addition, the collector himself is in a process of co-creation and sometimes commissions unique pieces to the brand, which is in our opinion the ultimate outcome of the approach satisfying the differentiation needs of a person (Courvoisier, 2018).

Shapiro (2004) develops the phenomenon of "artification" that arises when the figure of a creator surpasses the manufacturer's to create unique items without utilitarian intent. Shapiro's observation is verified in many independent watch brands, whose reputation is based on a "genius watchmaker" both technician, artist and craftsman, for example Philippe Dufour, Christophe Claret, Dominique Renaud, Kari Voutilainen or Robert Greubel and Stephen Forsey.

Zorik (2007) clearly indicates that the watch industry, including suppliers and subcontractors, represents the broad solid basis of the "watchmaking pyramid" to manufacture mass and affordable products, and that art is the pinnacle of the pyramid through the creation of exceptional "jewel timekeepers", often very audacious in their internal design (the movement, the complications) as well as their external design (the case, the dial, the time display).

The presentation of innovative unique models (talking pieces) is a factor of attraction in trade shows and fairs to reinforce the positioning of a brand and to generate press releases. For example in 2014 in Baselworld, the brand Graff presented "the most expensive watch in the world", a watch set with 110 extremely rare coloured diamonds worth 40 million euros (Courvoisier, 2018). Putting a limited series in time and number of watches on the market can also be a source of revenue: in 2017 and 2018, Omega sold through Instagram two different limited editions of 2,012 pieces of the emblematic Speedmaster Moonwatch at a price of 6'000 euros each: they were bought in less than two hours, with many customers staying on a waiting list (Courvoisier and Roederer, 2018).

Discussion and theoretical implications

In 1983, about fourteen years after the launch of the first quartz watch by eastern brands, mechanical watches and the Swiss community of watchmakers who built them, were thought to be "dead" (Landes, 1983). It is therefore amazing to understand why the market demand for a "dying" technology reemerged at a later date. However, by 2008 the Swiss mechanical watchmaking industry unexpectidly re-emerged as the world's leading exporter of watches in monetary value (Raffaelli, 2014). We explain this fact by a lot of changes in positioning the products versus competition, adapting internal organisation of most of the groups and independant brands, and lastly marketing activities to give a distinct identity to the brands of the Swiss watch industry, between tradition and innovation. Many companies also discovered a new target group: women, not only attracted by stones and gems, but also by poetic complications such as moon phases, indication of the tides, skymaps, etc.

In hindsight, it is probably a good thing that the electronic revolution of the 1970s made precision cheaper and the mechanical watches obsolete: with keeping only its symbolic utility, the mechanical watch became an "ostentatious luxury for the leisure class" in the sense of Veblen (Downing, 2008): successful brands satisfy symbolic needs, and one of the most powerful is probably standing: what is rare and useless becomes expensive and desirable (Veblen, 1899).

Nowadays, in a more and more digitalised world, with electronics everywhere (computers, cameras, cars, etc), the mechanical watch remains the only wearable device mixing art, craftsmanship and mechanical know-how. Swiss made watches proved to be beautiful, reliable and long lasting: certain brands such as Patek Philippe even position their products as a heritage to the following generations.

Besides the traditional channels of distribution (wholesalers and retailers), we observed a trend towards more direct marketing and sales with the brands' e-shops, pop up stores, sales on dedicated platforms or for launching quite new brands and concepts: Code41, Czapek, Liv, Sequent, Formex, Done Watches and Mauron Musy, amongst others. Most of these communicate with a subtle combination of mechanics and design, positioning themselves between utility and desire, these are the two stories of innovation (Babey, 2007).

The "classic arts" are well known: architecture, sculpture, painting, music, poetry, literature, and then modern ones: performing arts, cinema, electronic media, comic strips and gastronomy. In 2011, an association of watchmakers claimed that the 12th art was theirs! (montresdeluxe.com, 2012). Obviously, there are still many opportunities to develop watchmaking as an art as such in cleverly taking inspiration from the classical arts and codes.

Since 2012, the cantons and states of Switzerland and France work together to put the know-how of mechanics and art of watchmaking of the region of Jura mountains on the list of UNESCO's immaterial heritage. The application file was submitted in March 2019. In case of acceptation, this will surely reinforce the image of tradition and creativity in the watchmaking industry.

In conclusion, the success of Swiss watchmaking is obviously a good mix between heritage of art and mechanics, including the know-how of musical boxes and automata from the 18th century, plus a solid modern industrial basis including microtechnics since the middle of the 20th century, and artistic creativity. Furthermore, marketing strategies of rarity and limited series of Haute horlogerie reinforce exclusive positioning and desirability of most brands.

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APPENDIXES



Appendix 1 : Swatch original © Google images



Appendix 2 : Rado Ceramica © Google images



Appendix 3 : Corum golden bridge © Google images



Appendix 4 : MB&F Horological Machine Alien Nation © Google images



Appendix 5 : Urwerk UR-103 Artdeco © Google images



Appendix 6 : Lady Arpels Poetic Wish © Google images



Appendix 7 : Breitling B55 Exospace © Google images



Appendix 8 : MAD Gallery Dubaï



Appendix 9: Automaton Pouchkine made by François Junod © Google images



Appendix 10 : Greubel Forsey Art Piece One © Google images



Appendix 11: Hublot Big Bang designed by Romero Britto © Google images



Appendix 12 : Elisabetta Fantone paints for Corum © Google images



Appendix 13: Maxime Pleschia-Büchi tatooing for Hublot © Google images