

Forging



Ahead

*Audemars Piguet's new
Manufacture des Forges
in Le Brassus*

AUDEMARS PIGUET

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*The year-old Manufacture
des Forges is just one part of
the new AP.*

BY NORMA BUCHANAN

The Hotel des Horlogers, in the village of Le Brassus, isn't the type of hotel you'd expect to find in the Vallée de Joux. With its four stars, its spa, and its haute cuisine restaurant, it's a little dollop of luxury in a rural, remote, albeit beautiful region that even its proudest residents describe as something of a backwater.

Even more surprising than the hotel itself is the hotel's owner, not Swissôtel or Mövenpick but, oddly enough, a watch firm: Audemars Piguet. The company built the Hotel des Horlogers, which is next door to its own administration and factory buildings on the Route de France,



AP's headquarters and factory on Route de France

so that Audemars Piguet visitors would have a place to stay.

I arrive at the hotel one day in February after a snowfall has turned the village and surrounding mountains, the Jura, into a series of picture postcards. I've come for a close look at what one might call the "new" Audemars Piguet, of which this spiffy new hotel (it opened in 2002) is just one sign. During the past decade, the company has remade itself: expanding its production capacity, bringing more of its movement manufacturing in-house, developing its own escapement. It has turned the Royal Oak Offshore, once a mere line extension of the basic Royal Oak line, into a rambunctious, attention-getting and very successful collection in its own right. It has made heavy investments in Audemars Piguet Renaud et Papi, its high complications facility in Le

Locle. As a result of all this, it has seen its sales triple, recession notwithstanding, to around 500 million Swiss francs (about \$450 million).

The changes began with a huge infusion of cash a decade ago, SF 280 million (about \$170 million at the time) it received for selling its 40 percent share in Jaeger-LeCoultre to the Richemont Group (see "How Audemars Piguet Pumped Up," *WatchTime* February 2004). That windfall, invested in research and development, new manufacturing facilities and marketing, engendered growth made even more robust by the worldwide boom in luxury watches.

MY VISIT BEGINS not with the new AP but the old one, represented by the series of three 19th- and early-20th-century buildings next to the hotel. AP was incorporated in 1881 by the watchmakers Jules Audemars and Edward-Auguste Piguet, both descended from old Vallée de Joux families (the two had worked together since 1875, which is the year AP gives as its founding year).

The buildings exude an antique charm: one can easily imagine watchmakers at work by the windows, making the complicated pocketwatches for which the brand was famous. In fact, the original factory building still contains a workshop where grand-complication pocketwatches — one per year — are made. The same building also houses the AP museum, with watches, documents and equipment dating from before AP was born to the present day (it is open to visitors only by invitation). The other buildings house AP's restoration department, where antique AP watches, along with other old timepieces made in the Vallée, are made new again. They also contain administration offices, the after-sales service department and factory space (a new factory extension was built in 2000).

A FIVE-MINUTE ride takes me to AP's new 12,200-square-meter factory, the Manufacture des Forges. In contrast to the Route de France buildings, it is a study in sleek modernity, better suited to making microchips — at least, so it seems — than mechanical watches. The only



hint of history lies in the name “Forges,” which comes from the Rue de Forges, so named because of the blacksmith shops once found there.

AP’s CEO, Philippe Merk, says the point of the new plant, which opened in August 2009, was to bring as many of AP’s manufacturing processes as possible under one roof. “We had all our operations scattered over various buildings, various villages in the valley. The investment [a reported 35 million Swiss francs] really helps to optimize the industrial flow of our production,” he tells me. Merk himself is a new addition to AP. He became CEO in December 2008, succeeding Georges-Henri Meylan. Before that, Merk was CEO of the Swiss watch brand Maurice Lacroix.

The Forges building houses research and development, movement assembly, regulation, casing and shipping. According to Merk, nearly all of the roughly 25,000 watches the company makes each year (production went down about 12 percent last year due to the recession) now contain movements made either entirely in-house or using an in-house base movement. The exceptions are quartz movements and a few mechanical ones that AP still buys from JLC.

These base movements include the automatic Caliber 3120, which was introduced in 2003 to replace the Jaeger-LeCoultre Caliber 889. Also assembled here: Caliber 2120, which, at just 2.45 mm thick, is the world’s thinnest self-winding movement with a central rotor, and used in the Royal Oak Equation of Time and Jules Audemars Perpetual Calendar; and the 3090 manual-wind movement. Merk tells me that the march toward self-sufficiency will continue: AP already makes some of its own components and is increasing that portion all the time. It buys its escapements from Nivarox.

AP also makes several of its own complicated movements, including the 3124 chronograph and the 2912 chronograph tourbillon. The building houses a grand-complication department where six watchmakers assemble the movements, just 12 or 13 per year, used in the Royal Oak and Jules Audemars grand complication watches. (The components are

*THE NEW CEO
PHILIPPE MERK
PRESIDED OVER
THE OPENING OF
THE NEW FORGES
FACTORY IN
AUGUST 2009.*

CEO Philippe Merk



*AP's 3120 self-winding
base caliber*



made by AP's Vallée de Joux neighbors Dubois Dépraz, in Le Lieu, and Jaeger-LeCoultre, in Le Sentier. The former also supplies AP with various modules such as the 3840 chronograph used in the Royal Oak Offshore chronographs.)

The company is very proud of the factory's environmentally friendly design. The facility is heated by a nearby wood-fired heating plant and cooled by air from the outside, not by air-conditioning. The building materials are either recycled or chosen for their low environmental impact. The factory meets the Swiss-government supported set of ecological standards known as Minergie. AP's chairwoman Jasmine Audemars, a longtime supporter of environmental causes (see "Scion of the Times" sidebar) was a big proponent of the factory's low-carbon-footprint design.

But the factory isn't completely carbon-free: in fact, carbon, specifically forged carbon, used to make bezels, pushers, and cases, is one of the AP brand's distinguishing features. In one department, I see these parts being manufactured. No other watch company uses forged carbon (not to be confused with carbon fiber, which many brands use for dials and other components). It has an interesting, variegated surface that looks something like meteorite.

To make the pieces, technicians cut up strings of carbon fiber into short segments and stuff them into a mold. They then bake the mold in an oven. When the carbon fiber reaches a temperature of 240 to 250 degrees Centigrade, they remove the mold and place it in a press, which, at a pressure of 400 kilograms per square centimeter, forces the carbon into every nook and cranny of the mold. It's a time-consuming process, and produces only about 15 components per day. AP first used forged carbon in its 2007 Alinghi Royal Oak Offshore and has since incorporated it into several models, in-

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*The Royal Oak Equation
of Time*

*AP ASSEMBLES
ITS BASE
MOVEMENT, THE
3120, AT THE
FORGES
FACILITY.*



Scion of the Times

You may have heard the boast: “Today, Audemars Piguet is still the world’s oldest watch manufacturer never to have left the hands of the founding families.”

Two of those hands belong to Jasmine Audemars, great granddaughter of company co-founder Jules Audemars. As chairwoman of the Audemars Piguet board, and the company’s public face, she is AP’s most visible link to its 135-year-long history. On a recent visit to AP, I met with her in AP’s Hotel des Horlogers in Le Brassus, where, in a restaurant aptly named *Le Chronographe*, she told me about her life in the watch business.

Watches, I learn, are her second career. Her first was as a newspaper editor. She grew up in Le Brassus, where Jules Audemars first set up shop with Edward Piguet and where their descendants have overseen AP ever since. She studied social science and economic history at the University of Geneva. Her ambition at that point, she says, was to travel the world. To that end, she went to work for *Journal de Genève* (which has since merged with the newspaper *Le Temps*, and now goes by that name), covering economics, foreign affairs and national news. Twelve years later, she became editor-in-chief.

Twelve years after that, in 1992, she did an about-face. Her father, Jacques-Louis Audemars, who was then AP chairman, asked her to take

over for him (she had been a board member since 1987). “Of course, I couldn’t be both chairwoman of a company and editor-in-chief. I had to choose. And I decided, after 24 years in journalism, that it was time to change my life.”

As chairwoman, her main job is to keep AP’s shareholders happy, she says. She doesn’t interfere in AP’s day-to-day operations, but does help to set broad strategy.

Despite her hands-off policy, she has some definite ideas about what she’d like to see happen at AP. “One of our main problems is ladies’ watches. This company is very much a men’s-watch company. This has to be developed and we intend to do it,” she says. Women’s watches now account for between 20 and 25 percent of AP’s sales, but Audemars would like to see them reach 40 percent. “It’s a very ambitious goal. But we should. I think that

ladies are more and more interested in mechanical watches, and even in small complications. It’s no longer true that a woman doesn’t care about what’s inside the watch, and just wants a lot of diamonds.” It will be a big challenge, one that other high-end, mechanical-watch companies also struggle with, she says. “Vacheron, Breguet, and Patek, until they came up with the Twenty-4 — one way or another, they all have the same problem.”

Audemars still loves to travel, and spends much of her time visiting international markets. The U.S. market is much different than when she first encountered it, she says. “In the beginning when I went to the United States, people there knew one brand, Rolex. Or, if you were lucky, maybe Patek and Cartier, but Cartier for the jewelry. But I think it has changed now. People are better informed. They go to the Internet, they surf all day long and they know a lot about watches. Sometimes we have customers who know our watches almost better than we do. And this will grow,” she says.

She also loves trees, and for that reason heads up the Audemars Piguet Foundation, which supports forest preservation projects around the world. The Foundation was founded in 1992 to commemorate the 20th anniversary of the Royal Oak watch.

“Here we live in a very protected area. We have one of the largest forests in Europe just over there,” she says, referring to the Grand Risoux forest that rises above the valley. “And here it’s all protected. It’s very difficult to build a building around here now. And we know that around the world there are a lot of people who aren’t lucky enough to live and work in such an environment. We decided to create a foundation dedicated to the conservation of forest and at the same time to the education of children for the protection of the environment.”

It was her father who turned AP into a corporate tree-hugger. “He lived all his life in the Vallée de Joux. And of course he loved the environment. So when it was decided to create a foundation in ’92, for him it was quite natural that it be for the environment and the forest.”

Audemars has no children, so she will be the last descendant of Jules Audemars to be in AP management. Edward Piguet has one descendant at the company, a member of the board named, ironically, Olivier Audemars, a sign of how common the name Audemars is in the Vallée de Joux.

Jasmine Audemars





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The Jules Audemars Perpetual Calendar

cluding this year's limited edition Grand Prix Royal Oak Offshore (see cover).

FORGED CARBON is one way AP has jazzed up its Royal Oak Offshore collection, which was created in 1992 as an offshoot of the original Royal Oak. The latter, launched in 1972, achieved fame (or, in some quarters, infamy) as the first luxury watch made of steel. It became the brand's flagship model. In the past few years the Royal Oak Offshore has stepped out of its older brother's shadow and emerged as a distinct sub-brand. According to Philippe Merk, the Royal Oak Offshore now has its own identity and its own set of fans, younger and less conservative than those who wear the Royal Oak. Together, the two collections account for 60 percent of AP business, he says.

After my Forges visit, I return to AP headquarters to talk to AP's head of design, Octavio Garcia. He joined AP seven years ago after six years at Omega. Garcia, who is from Chicago, has spent most of his time on the Royal Oak Offshore collection, and has turned it into a kind of laboratory for extreme watch styling.

He began with the Juan Pablo Montoya Royal Oak Offshore, named for the Formula 1 racecar driver, the first AP watch to incorporate carbon fiber. That watch marked the start of an era of increasingly bold and adventurous Offshore designs, Garcia says.

"From that point on it became an almost daily business to continue pushing the envelope with Royal Oak Offshore. It was going to become the platform of innovation for the company," Garcia tells me. At first, many people found the Montoya Offshore design too outré for a luxury watch brand. "I remember following it on some of the forums and people were shocked by it. They had trouble accepting it. But soon afterward they wanted more. So Montoya started us off on a good course for Royal Oak Offshore. The collection became a phenomenon," he says.

After hiring another designer, Philippe Vaptzarof, who had worked in the automotive industry, Garcia continued his journey to the outer limits of watch design with the Rubens Barrichello Royal Oak Offshore, launched in 2006, also named

A chronograph from AP's Millenary collection





The Royal Oak Offshore Tourbillon Chronograph with in-house Caliber 2912 and forged-carbon bezel



Octavio Garcia

for a famous F1 driver. The bezel was designed to look like a ventilated disk brake and the pushers like diffusers on an F1 car. It was AP's first watch incorporating ceramic, which was given a matte finish in keeping with that of the other Royal Oak and Royal Oak Offshore watches.

Garcia's other major projects have been redesigning the regular Royal Oak when it was fitted with the new 3120 movement, right after he arrived at AP. He gave it a thicker case and a more tapered bracelet and tweaked several other design details.

After focusing so much attention on the Royal Oak and Royal Oak Offshore, Garcia says AP will begin devoting more energy to its complicated *haute horlogerie* pieces like those in its Jules Audemars collection, i.e., the type of watches for which AP has been best known for most of its history.

MANY OF THOSE *haute horlogerie* pieces are the work of APRP, Audemars Piguet Renaud et Papi, in Le Locle, where I go next. Le Locle is a small watchmaking town (but bigger than Le Brassus) in Canton Neuchâtel, right next to La Chaux-de-Fonds. The trip there takes me out of the Vallée de Joux along winding roads through the Jura.

When I arrive I am met by APRP's chief, Giulio Papi, who, among watch fans, has attained rock-star status as a designer and maker of complicated movements. Papi founded the company with Dominique Renaud in 1986 (it was at first called Renaud et Papi). Both men had worked at AP before going out on their own. A few years later, AP bought a majority interest in the company and renamed it Audemars Piguet Renaud et Papi. Renaud is no longer with the company. AP owns 80 percent of APRP and Papi owns 20 percent.

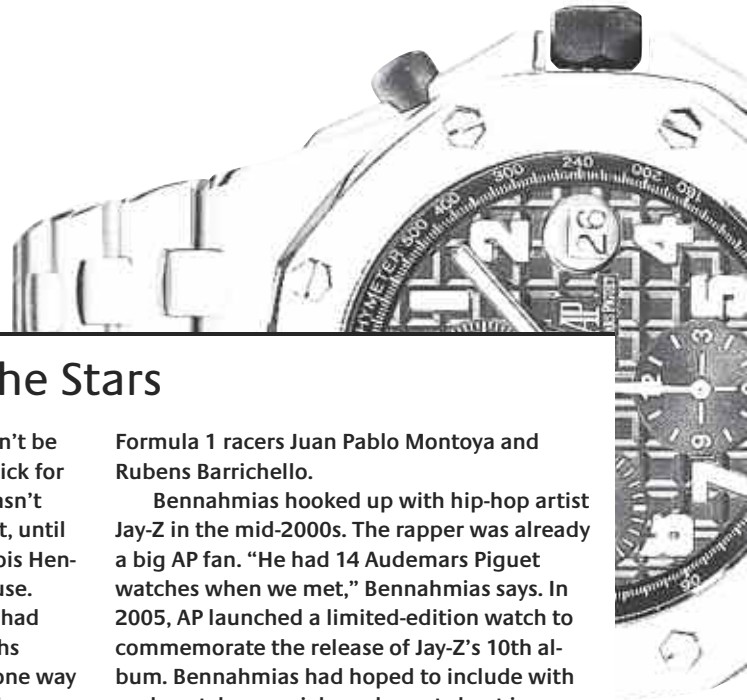
He tells me that the company makes 950 movements per year, for AP and for other customers. By contract, AP is entitled to at least half of APRP's production; it can buy more if APRP wants to sell it more. APRP is allowed to sell the other half to other watch brands, which include Richard Mille, Cartier, A. Lange & Söhne and Chanel.

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Bennahmias with Schwarzenegger



Clinton appeared at an AP auction benefiting the Clinton Foundation



Dancing with the Stars

Arnold Schwarzenegger wouldn't be every Swiss watch company's pick for a celebrity endorser. And he wasn't Audemars Piguet's. Not, at least, until AP North America's CEO, François Henry Bennahmias, took up the cause.

Bennahmias, a Frenchman, had been in his job just a few months when in 1999 he decided that one way to revive AP's flagging U.S. business was to give Americans what they just can't seem to get enough of: celebrities. Over the initial objections of Swiss management, who at first dismissed Schwarzenegger as a mere muscleman (subsequent contact with him changed their minds), Bennahmias got an Audemars Piguet Royal Oak Offshore into Schwarzenegger's 1999 movie, *End of Days*. "I told him, 'We don't need to be able to see the watch; I just need to be able to say that the watch is in the movie. And we'll make a special edition of that watch and raise money for your foundation.'"

It was the beginning of a beautiful friendship, not just between AP and Schwarzenegger but between AP and a parade of other celebrities. (The AP watch did make a cameo appearance in *End of Days*, by the way.) In November 2000, Schwarzenegger was co-chairman, with Muhammad Ali, of a charity auction marking AP's 125th anniversary. Thirty-three other celebrities also participated, including Robert DeNiro, Anthony Hopkins, Uma Thurman, Sharon Stone and Billy Crystal. The auction raised \$1.5 million.

When Schwarzenegger made *Terminator 3: Rise of the Machines* in 2003, he once again wore a Royal Oak Offshore, a 61-mm-by-57-mm titanium watch called the T3 Chrono.

Swiss management took notice of how well celebrity tie-ins worked, and launched limited-edition Offshore models bearing the names of

Formula 1 racers Juan Pablo Montoya and Rubens Barrichello.

Bennahmias hooked up with hip-hop artist Jay-Z in the mid-2000s. The rapper was already a big AP fan. "He had 14 Audemars Piguet watches when we met," Bennahmias says. In 2005, AP launched a limited-edition watch to commemorate the release of Jay-Z's 10th album. Bennahmias had hoped to include with each watch a special parchment sheet inscribed with the lyrics of one of Jay-Z's songs. After seeing the lyrics, which contained much unsavory language, he changed his mind, and instead had all 10 of Jay-Z's albums put on iPods, to be autographed by Jay-Z and given away with each watch.

Bennahmias's biggest "get" of all was President Bill Clinton. In 2007, the same year AP launched its Shaquille O'Neal Royal Oak Offshore, AP made a special limited-edition Jules Audemars equation-of-time watch, sales of which would benefit the Clinton Foundation. Clinton appeared at a New York press event and then at an auction, where one of the watches sold for \$200,000. In addition to proceeds from the watch, AP donated \$3 million to the foundation.

In the meantime, Bennahmias was exploiting the power of celebrity-enhanced limited-edition watches to improve the brand's stature in U.S. stores. "2003 was when limited editions started to get big. Then I could use them as leverage," Bennahmias says. He started to tell retailers, "You want this? You'd better be better to us."

Has Bennahmias's star strategy worked? Bennahmias says AP sales in the United States, which is AP's biggest market, increased more than 10-fold between 2000 and 2008, AP's record year, when U.S. sales reached \$75 million (they declined 15 percent last year, when the company reduced prices by 10 percent). Many factors contributed to the growth, but high-profile marketing was surely one of them.

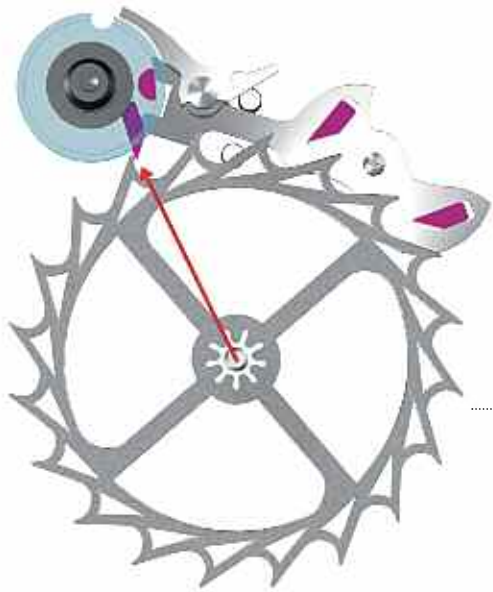
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Giulio Papi

Like its parent company, APRP has had a good decade. In 2003, thanks to the Richemont money, APRP was able to triple its factory space. Since then, its payroll has grown from 80 to 160 people, Papi says. During the same period, its production has doubled (it's still very small, but watches equipped with APRP movements can sell for hundreds of thousands of dollars). Two years ago, APRP bought an additional building, next to the original one, where it manufactures components. APRP manufactures all its components itself except for the springs and jewels. APRP makes all of AP's high complications other than the equation of time with sunrise and sunset, the perpetual calendar and the grand complication, Papi tells me.

The most important thing APRP ever did for AP, though, was to design its new escapement. Although to date it has only been used in three *haute horlogerie* pieces, it will one day become a brand staple, incorporated in every watch AP makes, Papi says. Inspired by a two-centuries-old design by the French watchmaker Robert Robin, the escapement fea-



The new AP escapement

The APRP facility in Le Locle



tures direct impulsion, meaning the escape wheel conveys force directly to the balance. Like all AP escapements, it is made by Nivarox, although AP has exclusive rights to the design. (See "From Concept to Caliber" in *WatchTime's* April 2009 issue.) It is more efficient and precise than a traditional anchor escapement and does not require lubrication, AP says. It has an amazingly high frequency: 43,200 vph.

Papi's next task is to alter the design so that the escapement can be mass-produced. That will take some time, he tells me. "To make the escapement in large quantities, we need to change the shape of some of the components. But we can't change all the component shapes at the same time or the escapement's performance will suffer. Instead, we have to change just one, make a prototype of it and see how it works. If it works well, we change the next component, and so on. That means we'll need a very long time to get to where we can make the escapement in large quantities."

After our talk, Papi takes me on a tour of the factory, showing me where tourbillons and minute repeaters are made (the latter are in a separate area so the watchmakers can hear the gongs clearly), and where the components are beveled and finished. *Guillochage* is the only type of finish that APRP does not do in-house. In fact, Papi is so interested in fine finishing, and so determined that it not become a lost art, that he has written, with Caroline Sermier, an illustrated primer on the topic. I also see a department devoted to researching materials used in other industries that could be used to make watch components.

We finish the tour at Papi's work station. Unlike most bosses, he doesn't have an office; he works out in the open with other members of the technical department. His desk is covered with drawings bearing hieroglyphic-like calculations about energy loss and other movement-related matters.

"Complications are our passion," he tells me, as I gaze bug-eyed at the hopelessly complex blueprints. "If we want to continue to make them we have to come up with new ideas." ○