# Progression of Wristwatch Styles: From Bracelet Watches to Smartwatches

## Part 3: 1940–1959: World War II, the Sci-Fi Craze, and Electric Wristwatches

**by Randy Jaye (FL)**

*Editor's Note: Part 1 of this series was published in the November/December 2017(pp. 511-516) issue, and Part 2 was published in the January/February issue (pp. 15–20).*

*Author's Note: The U.S. watch industry retooled for World War II to make war-related products and military wristwatches, leaving the neutral Swiss in a position to dominate the world commercial market. U.S. watchmaking companies never really recovered from World War II because the Swiss developed complicated and stylish models that appealed to consumers around the world. The Atomic era prompted interest in science fiction, which influenced art designing and wristwatch styling. Japanese wristwatch manufacturers emerged as competitors in the global watch industry. The development of the electric watch influenced futuristic styling and advanced development techniques. All photos are from the author's collection unless stated otherwise.*

### World War II

World War II started on September 1, 1939, when Germany invaded Poland. The United States did not enter the war until the Japanese bombed Pearl Harbor, HI, on December 7, 1941. Many watch companies in the United States began making wartime products, such as metal detectors, altimeters, marine chronometers, and instrumentation devices for aircraft, submarines, and ships in support of the war effort. In 1942, the War Production Board[1] halted the manufacture of civilian wristwatches in the United States because they were determined to be nonessential products. Military watches were produced in the United States (Figure 1), but the styles of these watches were plain and sturdy to comply with standard military specifications. These military wristwatches typically included black dials, luminous Arabic numerals, screwed-down case backs, and khaki or canvas straps. Some were made with the hack set feature so the watch could be stopped and

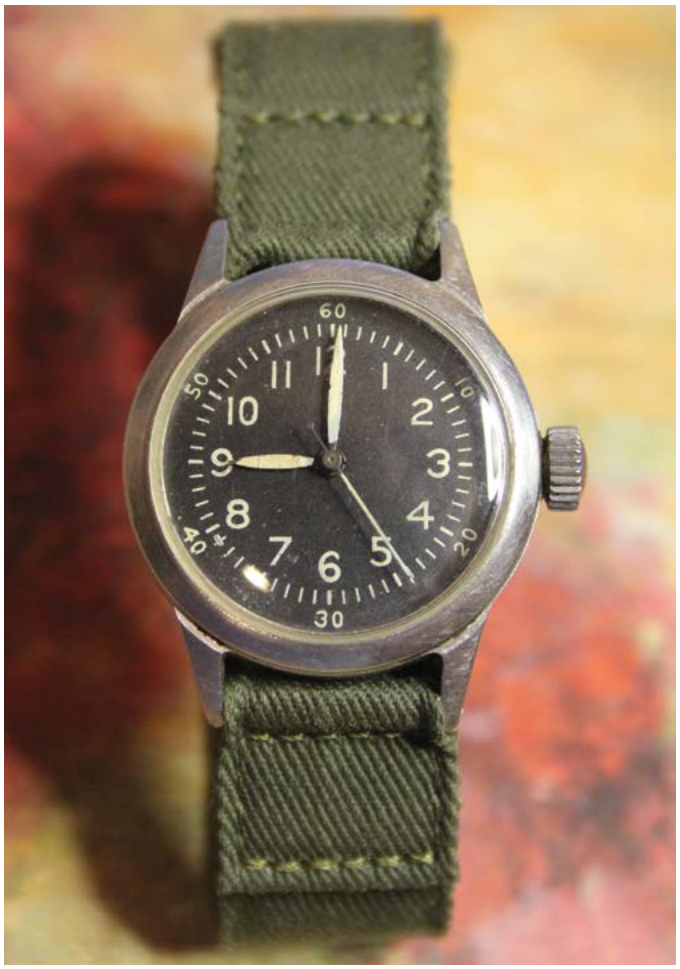

**Figure 1.** U.S.-made World War II military wristwatch with a 16-jewel movement and hack set functionality by Waltham, ca. 1944.

synchronized to match the exact time with other watches for use in precise timed military maneuvers.

Switzerland maintained a state of armed neutrality during World War II, which allowed them to trade with both the Axis[2] and Allied[3] powers. This neutrality allowed Swiss watch manufacturers to deeply penetrate and eventually dominate the global civilian wristwatch market as they made various military models that both sides of the war used. Swiss wristwatch development during World War II resulted in new and improved models with commercial appeal and technical sophistication. Examples include Universal Genève's Tri-Compax chronograph that had a triple calendar with painted moonphase disk (released in 1944). Rolex's Oyster Perpetual Datejust was the first wristwatch with a date display and a quick date set mechanism (released in 1945). As a result, the Swiss watchmaking industry benefited from World War II because their other major competitors in France, Germany, the USSR, Japan, and the United States were engaged in war. In 1945, almost 11 million wristwatches were produced by Swiss watch manufacturers.

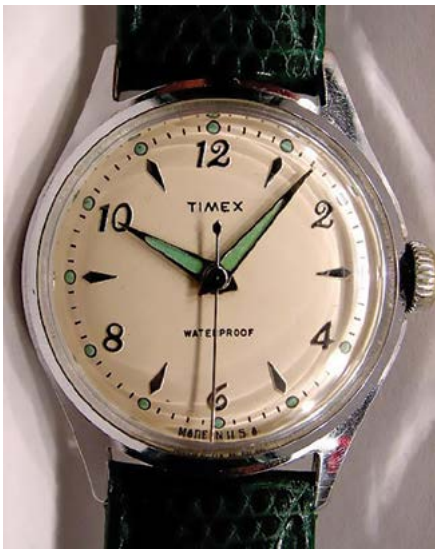


**Figure 2.** Timex Marlin Model made in United States, ca. 1950s. Alan's Vintage Watches. Accessed April 23, 2017. http://alanwatch.homestead.com/timexmore.html.

## Post–World War II

When Japan formally surrendered to the Allies on September 2, 1945, ending World War II, watch manufacturers in the United States and other Axis and Allied nations quickly realized it was very difficult to compete with the Swiss. Years of research and development were lost, and the Swiss were dominating the world's wristwatch market. Factories in the United States had to be converted from wartime manufacturing, and civilians were now familiar with Swiss wristwatches with their fancy styling and advanced functions and features, including complicated machine-made day-date and chronographs models. In 1946, Swiss manufacturer Audemars Piguet released the world's thinnest wristwatch with a mechanical movement measuring only 1.64 mm, or 0.06 inch, thick. Ultraslim Swiss styles had very little competition at the time and were very appealing as dress wristwatches.

In 1950, the United States Time Corporation (U.S. Time),[4] led by its Norwegian industrialist president, Joakim Lehmkuhl,[5] launched its Timex[6] brand with a mass-produced, inexpensive, and reliable mechanical wristwatch movement called the V-Conic. The popularity of Timex watches (Figure 2) during the 1950s was due to their pricing, durability, styling, and brilliant print and TV advertising. In 1956, U.S. Time introduced TV ads that showed Timex watches withstanding various "torture tests" and using the famous line, "It takes a licking and keeps on ticking." In 1957, 5 million Timex watches were sold. In 1958, that number grew to 8 million. By the end of the 1950s, 25 percent of the watches sold in the United States were Timex. The Timex brand was now a legitimate competitor in the Swiss-dominated international watch market.

Watchmaking in the 1950s was not just all about U.S. Time and its Timex brand's extraordinary success. Other U.S. companies, including Benrus, Bulova, Elgin, and Hamilton, were struggling to survive because they were slow to transition to more complicated and stylish wristwatches. In 1958, the Waltham Watch Co., founded in 1850, went out of business in the consumer watch market. Some surviving U.S. companies attempted to restrict imports from Switzerland and impose higher tariffs by lobbying Congress. These efforts were not successful in slowing the Swiss domination in U.S. sales. Swiss and Japanese manufacturers also were making significant progress in the global wristwatch industry.

Swiss watch manufacturers continued to improve the accuracy and reliability of mechanical wristwatches. In 1952, Breitling released its Navitimer model with new circular slide rule styling, which became a legendary aviator model worn by pilots all over the world. In 1956, Omega became the most advertised watch brand in the world. Its Speedmaster model became officially certified by NASA for all manned missions. On July 20, 1969, it was the first watch to be worn on the Moon by astronaut Buzz Aldrin.[7] As self-winding (automatic) watches became more popular during the 1950s, many Swiss manufacturers

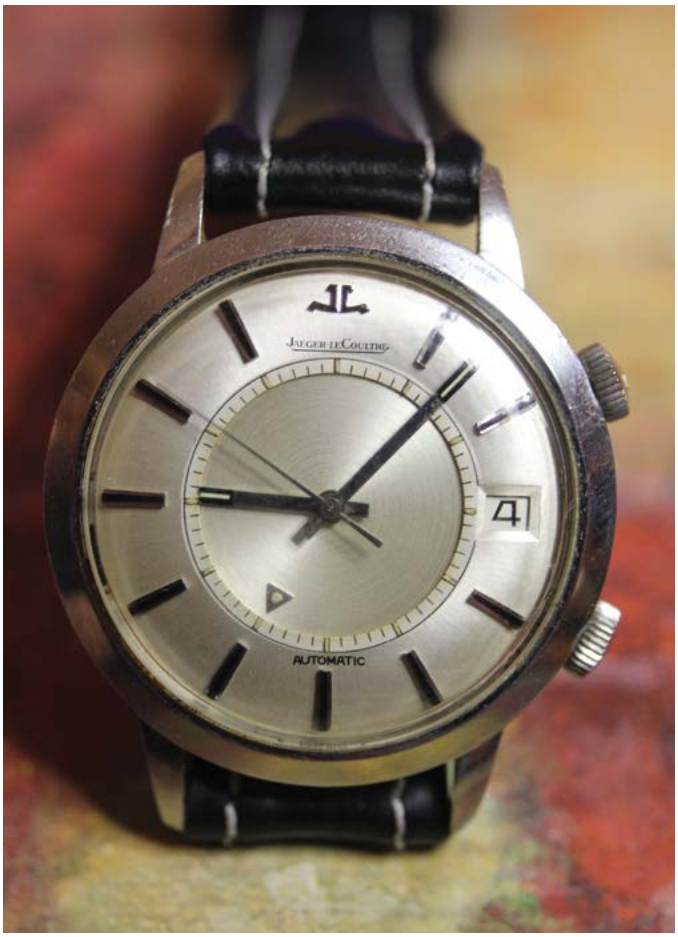


**Figure 3.** Jaeger-LeCoultre Memovox Model with automatic movement with manual winding wrist alarm, ca. 1950s.

released models with names ending with "-omatic." In 1956, Jaeger-LeCoultre released its Caliber 815, the first automatic alarm wristwatch movement (Figure 3). In 1959, Piaget released its 2.33 mm, or 0.09 inch, thick Caliber 12P, the thinnest automatic movement in the world.

The four largest Japanese watch manufacturers—Citizen, Orient, Seikosha (Seiko) (Figure 4), and Takano—expanded beyond their traditional domestic market and began exporting movements and complete wristwatches. Japanese mechanical movements were used in various brands, including Bulova. In 1959 Seiko supplied automatic movements for Timex's first jeweled wristwatch models with a low consumer price tag of around $20.

## Sci-Fi Craze Influences Wristwatch Styling

During the 1950s the Atomic Age[8] led to an explosion of interest in science fiction (Sci-Fi) because of its

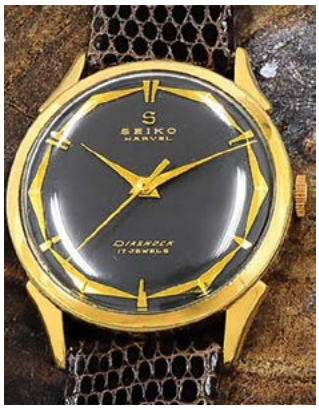


**Figure 4.** Seiko Marvel Model Diashock with 17 jewels, ca. 1950s. Rakuten. Accessed April 22, 2017. https://www.rakuten.co.jp/sweetroad/.

promotion on television programs, movies, magazines, and other media channels. Sightings and reports of flying saucers or "flying disks" (now called unidentified flying objects [UFOs]) also increased. Atomic Age, Sci-Fi, and UFO themes influenced many types of designs in architecture as well as industrial, interior, and the fine arts. Many nontraditional and eccentric Sci-Fi wristwatch styles with atomic motifs and space age symbols (Figures 5–7) were popular.

## Electric Wristwatches

In 1952, two watch manufacturers—Lip, a French company, and Elgin, a U.S. company—independently announced the development (prototype) of significantly different electric wristwatches. But, because of technical complications, both of these manufacturers were unable to commercially release their new electric watches. In 1957, the U.S. watch manufacturer Hamilton commercially released its Model 500 electric movement used in various cases, including the popular Ventura model (Figures 8). Futuristic styling, including asymmetrically shaped cases, was used in many Hamilton electric wristwatches. Hamilton advertised its electric wristwatches as "the watch of the future." Both the styling and the battery power source, which required no winding, made the Hamilton electric watches popular, but sales never lived up to expectations because of frustrating maintenance issues that caused the watch to stop running. An improved and more reliable electric movement, the Model 505, was released in 1961. In 1958, the first commercially released European electric wristwatch was the Lip R27, followed in 1959 by the German watch manufacturer Epperlein with its Epperlein 100 that closely resembled the Hamilton Model 500 movement.

As U.S. watchmaking companies lagged behind in the world market and were engaged in an uphill battle to remain in business after World War II and throughout the 1950s, there was still a glimmer of hope for their survival entering into the 1960s.

## Notes

1. The War Production Board (WPB) was a U.S. government agency established in August 1939 by President Franklin D. Roosevelt to supervise war production during World War II. The WPB directed the conversion of industries from producing peacetime commodities to war products. It also allocated scarce materials, established priorities in the distribution of materials and services, and prohibited nonessential production. The WPB was dissolved after Japan surrendered, ending World War II in 1945.
2. The Axis powers during World War II included Germany, Japan, and Italy.
3. The Allied powers during World War II, opposing the Axis powers, included France, Poland, the United Kingdom, Australia, Canada, New Zealand, South Africa, the Netherlands, Belgium, Greece, Yugoslavia, the Union of Soviet Socialist Republics (USSR), China, and the United States.
4. In 1944, the United States Time Corporation (U.S. Time) was formed from the Waterbury Clock Co. (1854–1944), known for manufacturing clocks with brass wheels and gears, but during World War II it became the largest U.S. supplier of artillery fuses for the British armed forces. U.S. Time (1944–1969) manufactured defense equipment, including mechanical time fuses and wristwatches, and in 1969 the company was renamed Timex Corporation (1969–2008). In 2008, Timex Corporation was acquired by the Timex Group B.V. and was renamed Timex Group USA (2008–present). Timex Group USA is now a wholly owned subsidiary of the Dutch conglomerate Timex Group B.V. headquartered in Hoofddorp, the Netherlands.

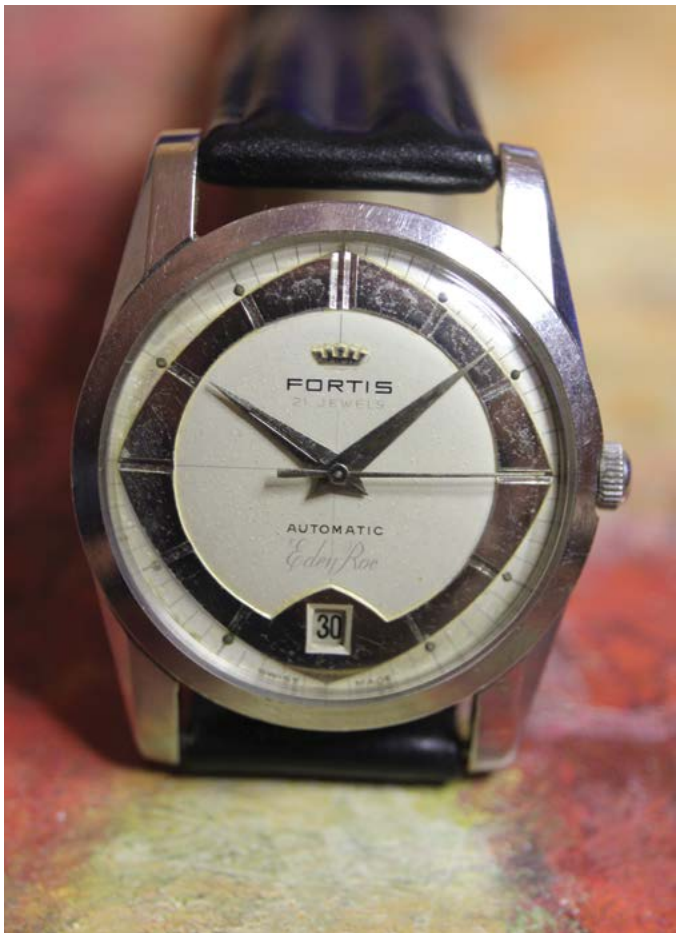


**Figure 5.** Fortis Eden Roc metallic UFO-shaped dial ornamentation with a "look-out" date window aperture, ca. 1950s.

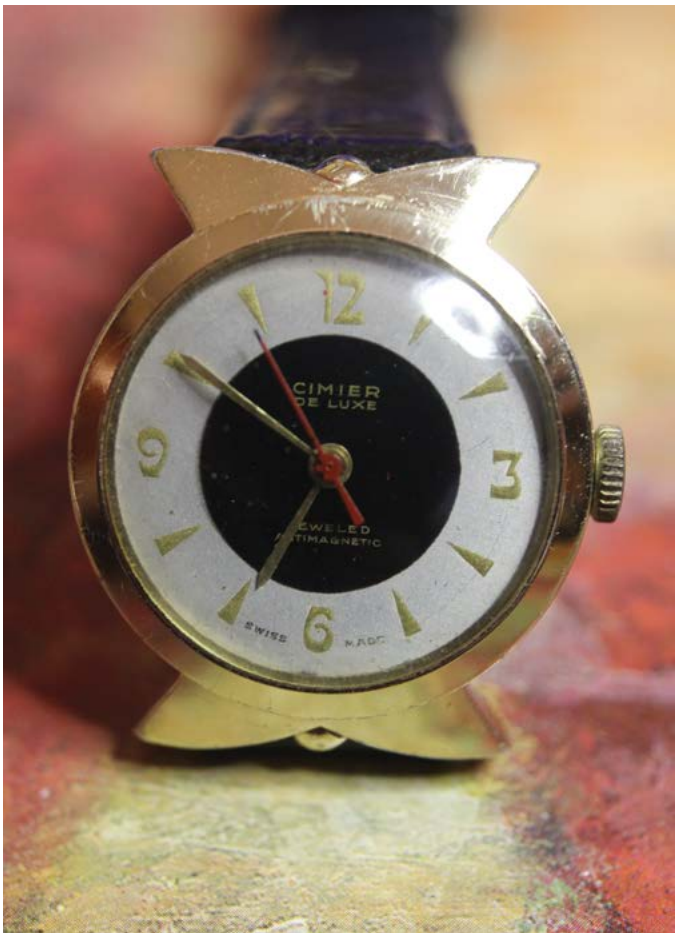


**Figure 6.** Cimier Deluxe with atomic-era design with a bull's eye "Doom's Day" target dial and symbolic red seconds countdown hand, ca. 1950s.

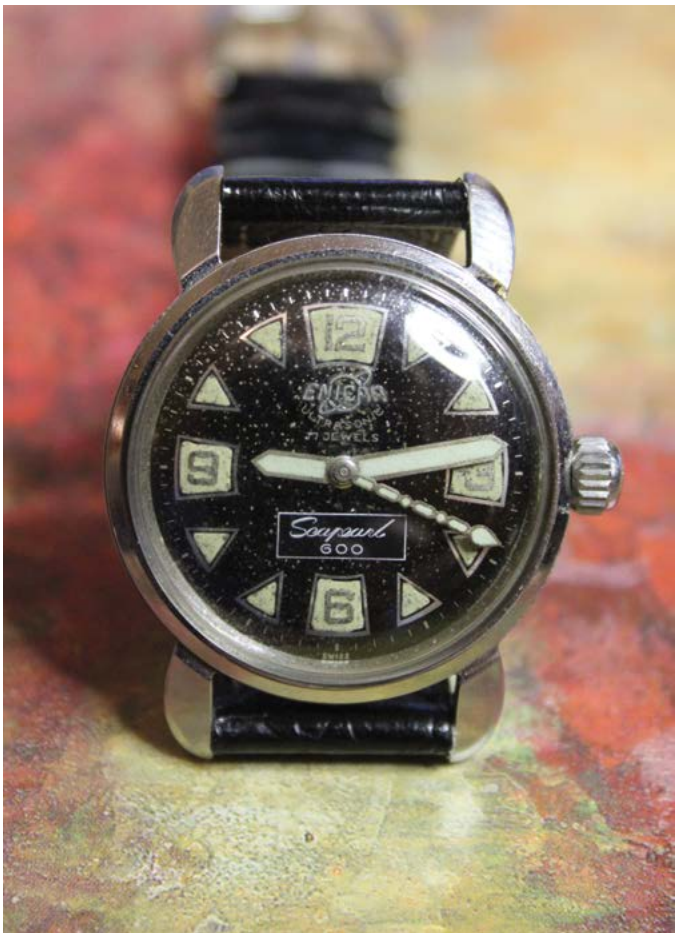


**Figure 7.** Enicar Seapearl 600 Model ultrasonic sci-fi influenced dial with "Symbolic Alien" hour markers, ca. 1950s.

5. Joakim Lehmkuhl (1895–1984) was a Norwegian engineer, an industrialist, and chair of the board of the Norwegian anti-Nazi newspaper *Tidens Tegn* from 1936 to 1940. When Nazi Germany invaded Norway in 1940, he knew he would be interrogated and possibly executed, so he and his family fled to the United States. He became co-owner of U.S. Time/Timex Corporation and served as president, CEO, and chair of the board from 1957 to 1973 when he retired. He was instrumental in making the Timex brand inexpensive, top selling, and a major competitor in the Swiss-dominated world wristwatch industry.

6. The Timex wristwatch brand was originally launched by U.S. Time in 1945 as nurses' watches and was produced in small quantities. Since 1950 Timex has evolved into one of the largest-selling watch brands in the United States and is known for its inexpensive and sturdy models that are distributed in more than 100,000 outlets.

7. Buzz Aldrin (Edwin Eugene Aldrin Jr.), born January 20, 1930, graduated from West Point in 1951 and served as a jet fighter pilot during the Korean War. He became a NASA astronaut in 1963. On July 20, 1969, Apollo 11 landed the lunar module Eagle on the Moon, and commander Neil Armstrong and Buzz Aldrin walked on the Moon.

8. The Atomic Age is a period usually defined from 1940 to 1960 when the development of atomic weapons and the threat of nuclear war created the Cold War. Architecture, industrial design, commercial design (including advertising), interior design, fine arts, jewelry, and wristwatch styling were all influenced by the themes of atomic science that used atomic motifs and space age symbols.

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## About the Author

Randy Jaye has been the president of Chapter 154 in Daytona Beach, FL, for many years and was the General Chair for the 2016 and 2017 Florida Mid-Winter Regionals. He is a watch and clock collector and occasional restorer. He has contributed several articles to the *Watch & Clock Bulletin* and is planning to complete several more in the near future with a focus on wristwatches and "modern" horology. He recently wrote and published a history book titled *Flagler County, Florida: A Centennial History*.

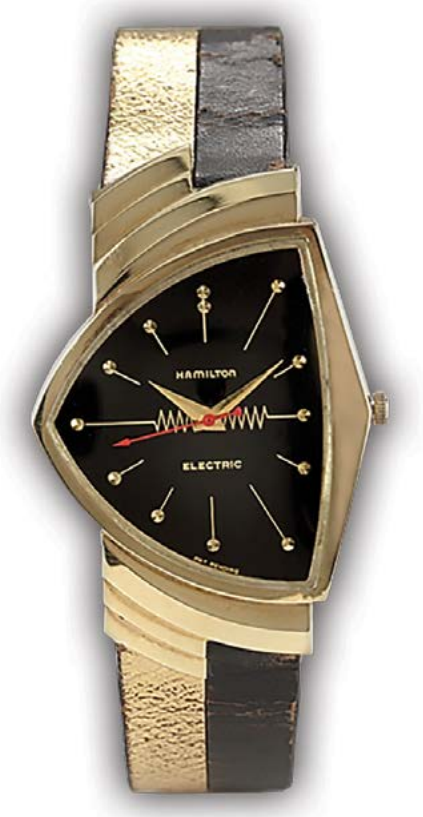


**Figure 8.** The Hamilton Ventura, world's first battery-powered "electric" wristwatch, ca. 1957. Hamilton Museum. Accessed April 22, 2017. http://www.hamilton-museum.com/museum

# Changes in the Watch Marketplace

**by David A. Sperling (NJ)**

*Editor's note: This is a very brief excerpt from a much longer article written for ValueMyStuff.com. Used with permission. David has also written about market changes for clocks and scientific instruments on ValueMyStuff.com.*

In 2017, the collector market of vintage and antique watches was adversely impacted by outlets, marketing strategies, and pervasive loss of public interest. A young audience, captivated by new technology, tends to buy smartwatches and shows little interest in traditional mechanical watches.

## Advice for Consumers: Caveat Emptor

Buy from reliable, well-known, trusted sources even if it costs a bit more. Do your research on the desired watch in advance of sales. Seek help from consultants in person or online. Do not use free appraisals from sources that have any interest in buying or selling your watch—a clear conflict of interest for such "appraisers." This includes well-known auctions houses.

Do not use online auctions where the percentage of passed watches exceeds 50 percent. They are looking to get retail or retail plus prices from the buyers. Reputable auction houses should not pass more than 10 to 15 percent of their merchandise with any regularity.

The serious collector should stick to traditional brands that tend to remain strong and hold value in a down market.