

# PRIMARY

Hungarian Aaron Becsei is one of the AHCI's youngest members, but in his family, watchmaking is an old tradition. His triple-axis tourbillon is the first watch made in his home country.

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Aaron Becsei and his father

**D**id you know that the word for watchmaker in Hungarian is órás? Chances are you didn't know that Hungary had any watchmakers of note, either. Apart from the late Steven Phillips, a candidate member of the AHCI who immigrated to U.S. in the 1950s, chances are really good not many people have heard of high watchmaking coming from this Eastern European country.

"There is no watchmaking tradition in Hungary at all," Aaron Becsei explains. "The Primus is

the first wristwatch ever made in Hungary," he adds.

"There was a two-year course in watchmaking, but this was mainly theoretical education providing basic knowledge of the history of watchmaking and watch repair. It is now cancelled as there were no applicants. And there was a factory during the Soviet era called MOM-Hungarian Optical Factory. There was one department where some retro-style alarm clocks were produced for some years. It was closed in the '80s.

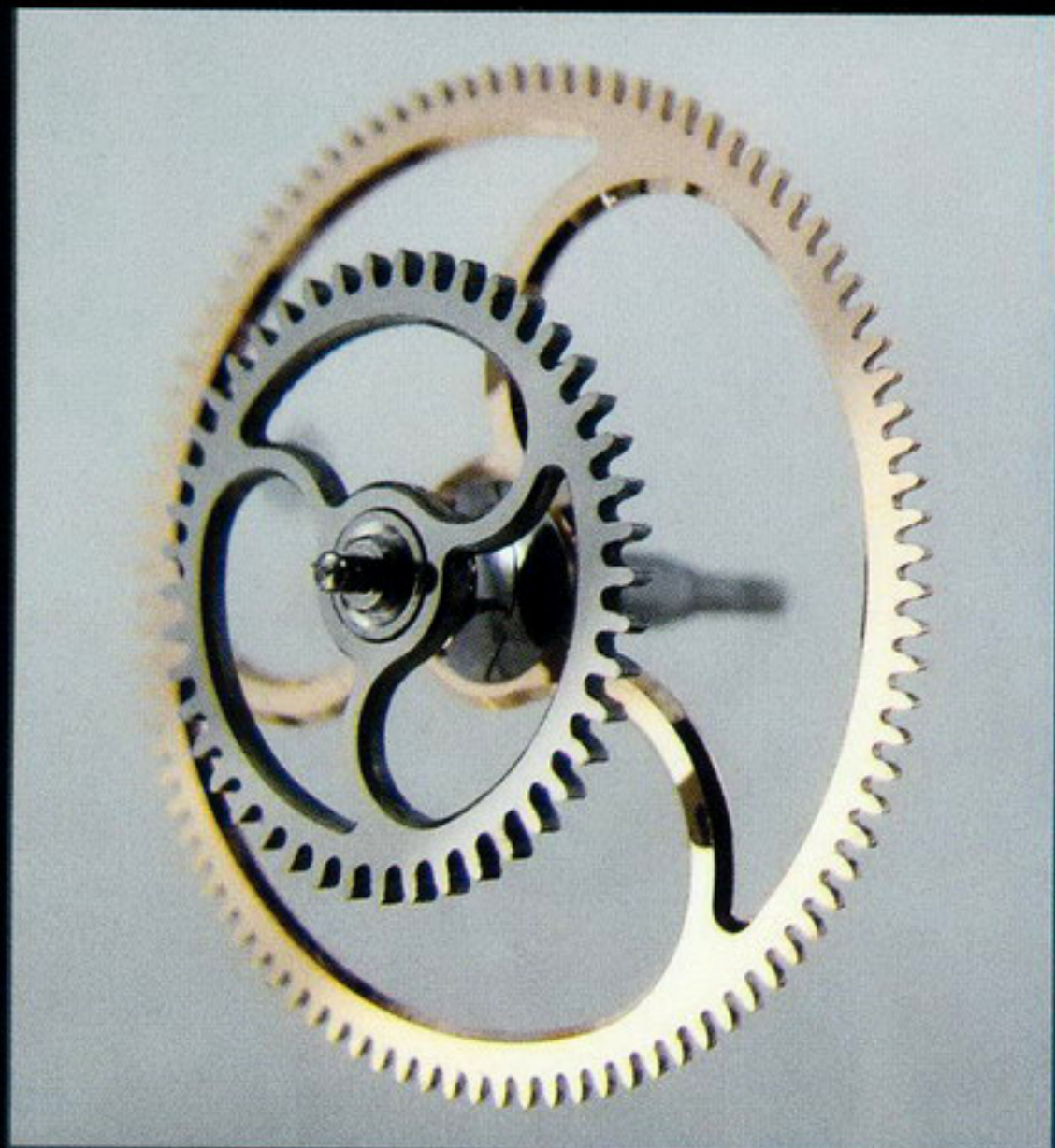
"So after having the watchmaking course basics, I had to learn everything from books and from my father and develop myself. Trying, trying and trying... which is why it is more difficult to be a watchmaker here."

### Young talent

Becsei was born behind the Iron Curtain, though this had been lifted before he was even a teenager. Becsei was born in 1979 in Budapest, into a watchmaking family. He represents the third generation of watchmakers, to be precise.



The Primus triple axis tourbillon wristwatch



The inner carriage of the Primus triple-axis tourbillon makes one revolution every thirty seconds, the middle one every two and a half minutes, and the outer cage every twelve and a half minutes.

His father repaired and restored timepieces, and young Aaron was surrounded by them right from the start.

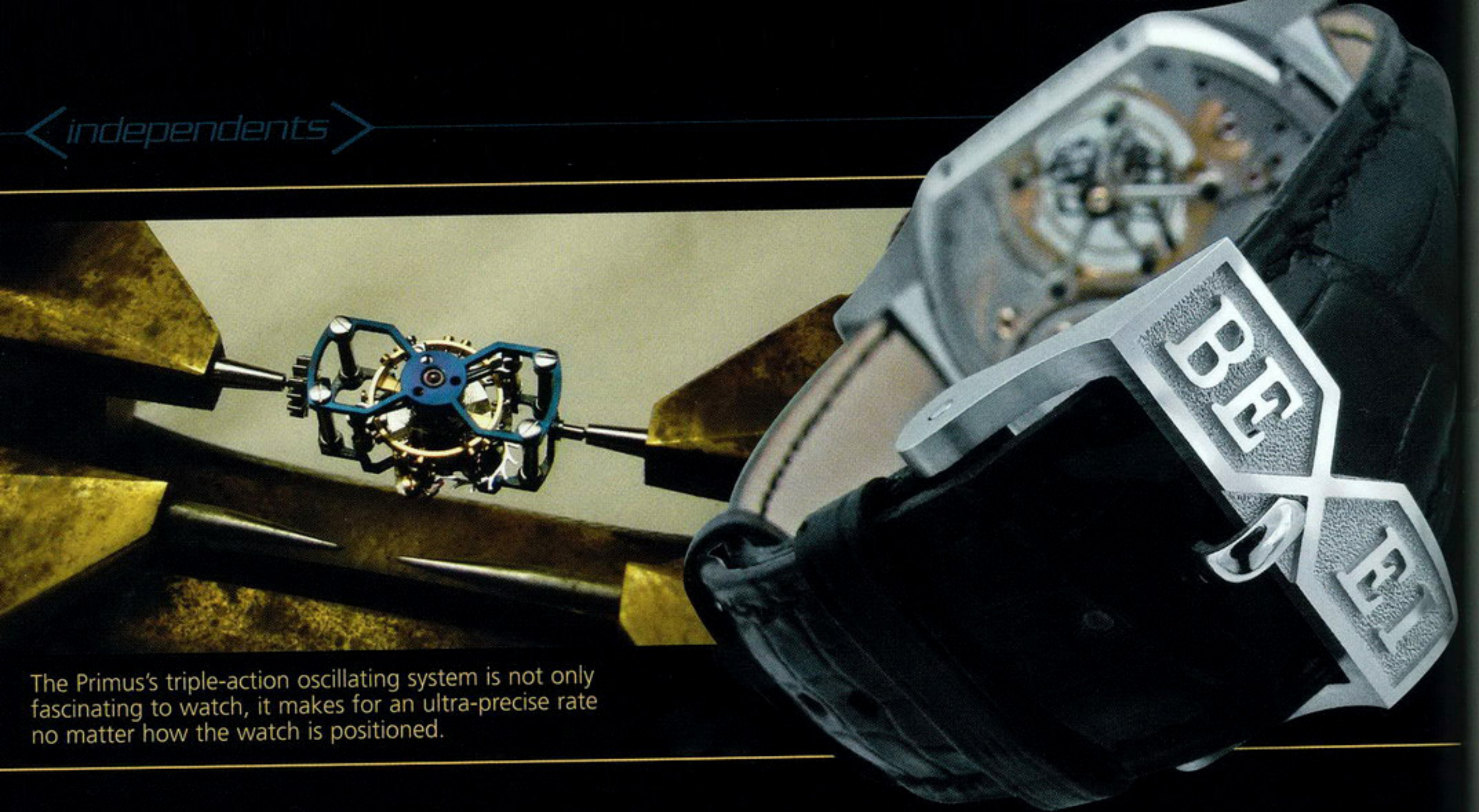
“My father and my grandfather were watchmakers too,” he explains.

“In their era there was no possibility to live from real watchmaking, therefore they repaired, restored and dealt with watches and clocks.”

After secondary school, he completed formal watchmaking education at Budapest’s Szolgaltato és Kezmuvesipari Szakkepzo School, graduating from its watchmaking program in 2000. To continue his education and his own development, as well as to get practical experience needed to start his own business, he began his career working on watch repairs with his father.

Strengthening his knowledge of engineering, he attended the School of Technical Sciences in Budapest in 2001, taking classes





The Primus's triple-action oscillating system is not only fascinating to watch, it makes for an ultra-precise rate no matter how the watch is positioned.

in CAD/CAM design. Becsei's graduation thesis paper, which concerned his tourbillon, was honored by Budapest's Chamber of Engineering in 2005.

**Unusual clocks**

In 2003, Becsei completed his first clock, the Miniature Double Pendule Zappler, a clock as small as a one-euro piece: 35 mm in height and 34 mm in diameter—millimeters, not centimeters. Containing a power reserve of one day, this miniaturized clock driven by a rolling escapement was fully designed and made by Becsei's own hands.

After that, Becsei needed only one and a half years to complete his first tourbillon table clock. This complicated piece of horology contains a calendar, moon

phase display, power-reserve indicator, thermometer, and a world-time function. This work of art appears much like a pocket watch placed upon on a stand.

Becsei applied for AHCI candidature in 2005 by exhibiting the Tourbillon No.1 clock at Basel-World in the same year. He currently remains a candidate member of the prestigious academy of independent horological creators, though it certainly won't be long before this talent is accepted as a full-fledged member.

**What a premier**

Becsei's first wristwatch was completed in 2008 after two years of development, and what a watch to start with. The Primus model (Latin for "first") contains a tri-

ple-axis tourbillon, needless to say an extremely complicated and unique movement. Only a handful of watchmakers have accomplished the triple-axis tourbillon in the history of watchmaking, most of them in the last decade or so.

"I tried to make something challenging," the young prodigy explains. "I like the tourbillon systems as they are complicated and extraordinary at the same time. So I was thinking big (as we say in Hungarian) and started to convert my ideas of a triple-axis system into a wristwatch-size timepiece."

Becsei had first thought to manufacture a table clock containing a triple-axis tourbillon without ball bearings. However, since he was also interested in

Becsei even makes and blues his own hands.





**Right:** The Primus's 38 x 46 x 17.9 mm case possesses a sapphire crystal window on the side of the tourbillon so that the beauty of this whirlwind can be admired from three sides. **Left:** The Primus utilizes no ball bearings. It uses synthetic ruby jewel bearings as a traditional movement would.

making a unique wristwatch, he decided to combine the concepts into one piece. He replaced the modernly common ball bearings with jewel bearings (patent pending). He needed a full six months to finalize the development on paper. Then he needed another year to get his system working. The most challenging element for him was the miniature size of the wristwatch movement. Then he invested a few more months in finishing the components, all of which were made by Becsei himself, with the exception of the sapphire crystal, jewels, springs, and the engraving work. This includes the case and buckle.

"Yes," he answers, "I made all the parts, even the case, the screws, the wheels, and the movement bridges."

He also made the miniature parts of the tourbillon system, in some phases using special watch-making machines.

"I have an old friend who does the engraving. He did it for all my

timepieces. Usually I look for some patterns I would like to see, we discuss the major requirements, and he does his part from that point."

The Primus utilizes no ball bearings, but rather synthetic ruby jewel bearings as a traditional movement would. The inner carriage of the triple-axis tourbillon makes one revolution every thirty seconds, the middle one revolves around its own axis every two and a half minutes, and the outer cage does its thing every twelve and a half minutes—within this short time, the balance wheel takes on 3,750 different positions. This triple-action oscillating system is not only fascinating to watch, it makes for an ultra-precise rate no matter how the watch is positioned.

The tourbillon and its carriages weigh only 1.5 grams, including seventeen ruby jewels. The watch's movement comprises 367 individual components, including 40 jewels, some of which are diamond endstones. This movement

created from scratch has 40 hours of power reserve.

The double ellipse-style 18-karat white gold case frames an incomparably beautiful engraved dial. Its composition is really extremely balanced, thanks in great part to the separate hour, minute, and second displays offsetting the cutaway for the tourbillon. The case possesses a sapphire crystal window on the side of the tourbillon so that the beauty of this whirlwind can be admired from three sides. Becsei plans on completing only nine pieces.

"I like making both clocks and watches, and I do not say 'I will never make more clocks,' but now I feel the wristwatches are more challenging.

"Currently I am working on finishing my Tourbillon No. 2 table clock, but after that I do not know exactly yet what I will work on. Maybe I will develop the Primus watch—I have a few interesting ideas—maybe a totally different solution will come up." ☺