

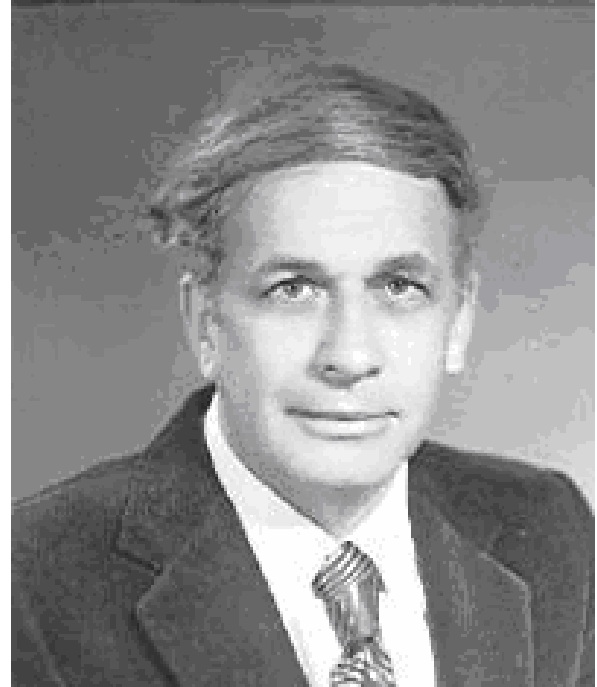
Genrich S. Altshuller

Background: Genrikh Saulovich Altshuller (Генрих Саулович Альтшуллер) (October 15, 1926 - September 24, 1998), was born in Tashkent, USSR. He created the *Teoriya Resheniya Izobreatatelskikh Zadatch* (Theory of Solving Inventive Problems or TRIZ), in English called the Theory of Inventive Problem Solving (TIPS). While in 9th grade he received a patent certificate for an underwater breathing apparatus. In 10th grade he designed and build a boat with a carbide rocket engine. In 1946 he received his patent for a device that made it possible to escape from a disabled submarine.

This led to his employment as a clerk in the patent office of the Caspian Sea Military Navy. Altshuller was tasked with helping others invent and patent their ideas. He was asked to develop a weapon that would provide a diversion in aiding soldiers trapped behind enemy lines escape. He was successful creating a noxious chemical substance from common medical drugs. It was during this period that he embarked on a search for some generic rules that would explain creation of new, inventive, patentable ideas.

Altshuller shared his ideas with a former classmate, Rafael Shapiro, and together they continued the development of what would become known as TRIZ. They won a National Competition Award for inventing a flame and heat resistant suit. Then they were asked to travel to Tbilisi where they were arrested charged with inventor's sabotage and imprisoned with a sentence of 25 years. Yet even in the gulag he continued his studies with his fellow inmates while in a labor camp.

In fact he used what he learned about TRIZ to help him solve problems that he faced in prison. Leonid Lerner tells a story about how



he had to figure out how to sleep with his eyes open during a period of interrogations.

After his release from prison, Altshuller returned to Baku, the Capitol of Azerbaidzhan.

Altshuller and Shapiro published their first paper, "Psychology of Inventive Creativity" in 1956 in the Journal *Voprosi of Psihologi*. This paper turned the psychology world on it's ears. For until that time it was believed that inventions were born through accidental enlightenment not the realization of contradictions through problem analysis.

In 1961 he published his first book "*How to Learn to Invent*" with 20 inventive methods and in 1969 he published "*Algorithm of Inventing*" with the 40 Principles.

After his release from prison he worked as a journalist, essayist, and a science fiction writer under the penname **Genrikh Altov** (Генрих Альтов), often in collaboration with

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his wife, Valentina Zhuravleva. He often used TRIZ in his science fiction writing to help bring about awareness of it. Between the writing of his two books

Altshuller tried to get the VOIR, the Soviet Unions Society for Inventors and Innovators to hold a seminar on inventive methods. This was finally scheduled in December 1968 and it turned into the first ever TRIZ seminar.

A full-fledged TRIZ movement developed among Russian engineers and other technically inclined people by the 1970s, and Altshuller played the role of its intellectual leader. He lectured at TRIZ congresses, published articles and books and corresponded with various TRIZ practitioners. He became the founding member and president of the Russian TRIZ Association. A number of his close friends and students have become the most prominent thinkers and teachers of the movement, popularizing TRIZ in Russia and abroad.

For a long time he published articles on TRIZ, with examples and exercises, in the Soviet popular science magazine *Izobretatel i Ratsionalizator (Inventor and Innovator)*.

Altshuller left Baku in the early 1990s amidst post-Soviet-breakup violence in the area. He settled in Petrozavodsk, Russia with his wife and granddaughter. As a result, Petrozavodsk became the center of the TRIZ Association. Genrikh Altshuller died from complications of Parkinson's disease in 1998.

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Altshuller Institute for TRIZ Studies

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