

DREAM TO FLY

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Man's biggest dream

For many centuries, man's biggest dream was to fly. In middle age, Leonardo da Vinci created sketches of a flying machine, Conrad Hass drawn a rocket and a space craft, other engineers invented airplanes, helicopters using unusual materials and original designs.



Conrad Haas

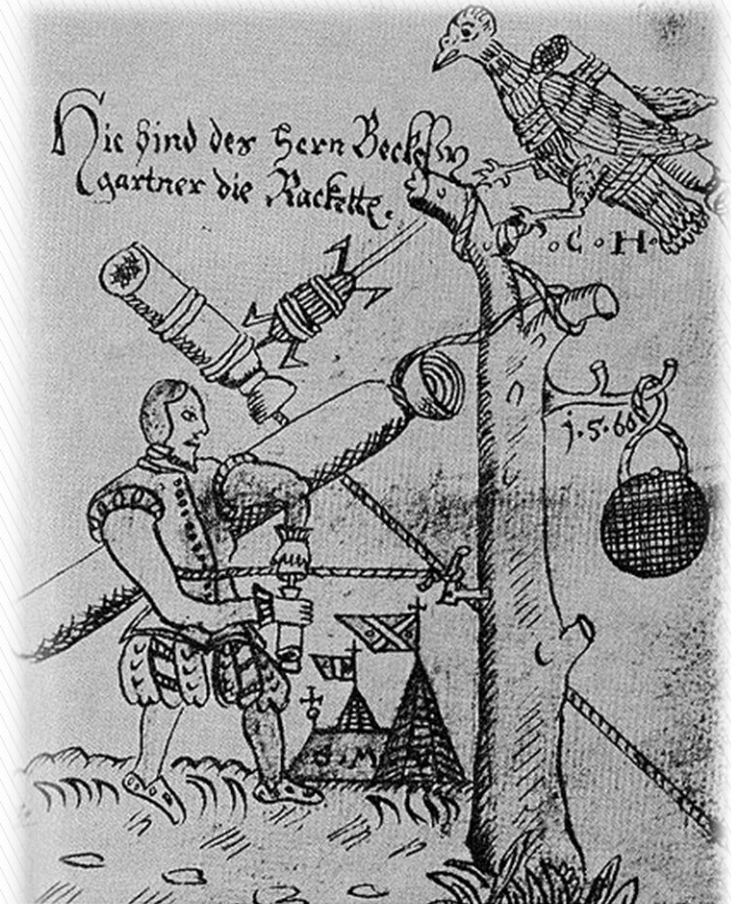
Conrad Haas has written about some amazing concepts in rocketry at a time when these concepts did not exist. After manuscript study, experts estimated that Haas discovered all types of projectiles and rockets which could have made with existing technology at that time. Haas gave interesting names to his rockets: “arrow-rockets,” “fire sticks”, “bat rocket”. Haas has also drawn a rocket launcher (“rakhetenstock”).





Conrad Haas

Before the discovery of Haas' manuscript, the first description of the three-stage rocket was credited to the Polish artillery specialist Kazimierz Siemienowicz in his 1650 work, *Artis Magnae Artilleriae Pars Prima* ("Great Art of Artillery, Part One"). In 1961 Doru Todericiu has made public Haas' manuscript discovered in Sibiu archives.



Conrad Haas (1529 – 1569), „Königlicher und Kaiserlicher Zeugmeister“ in
„Vnsernacht Firtwurf. Wie du solt machen gar schöne Rackette, die da von
„Über oben hiennuff in die hoch faren“.



Hermann Oberth



Oberth was born in Sibiu, in 1894. Around the age of 11, Oberth became fascinated about space by reading the books of Jules Verne, especially *From the Earth to the Moon* and *Around the Moon*, re-reading them to the point of memorization. By the age of 14 Oberth constructed his first model rocket that could propel itself through a vacuum by expelling exhaust gases from a liquid fuel.



Traian Vuia

- ▶ Traian Vuia was born in a Romanian family, on August 7th, 1872. He studied only a year at the Polytechnic School of Budapest, and he left to Paris with a *paper* on a monoplane flight which he called "*airplane-automobile*".





Traian Vuia

- ▶ On May 15, 1903, he submitted the project to the "Office national de la propriété industrielle" and obtained the patent for his flying machine. In Lugoj, he received financial support from his friends and started to construct "Vuia no.1" monoplane consisting of a triangular tubular steel frame set on four tire wheels pivoting wings, with a span of 21 inch on top of the frame and an engine driven with a single tractor propeller.





Aurel Vlaicu

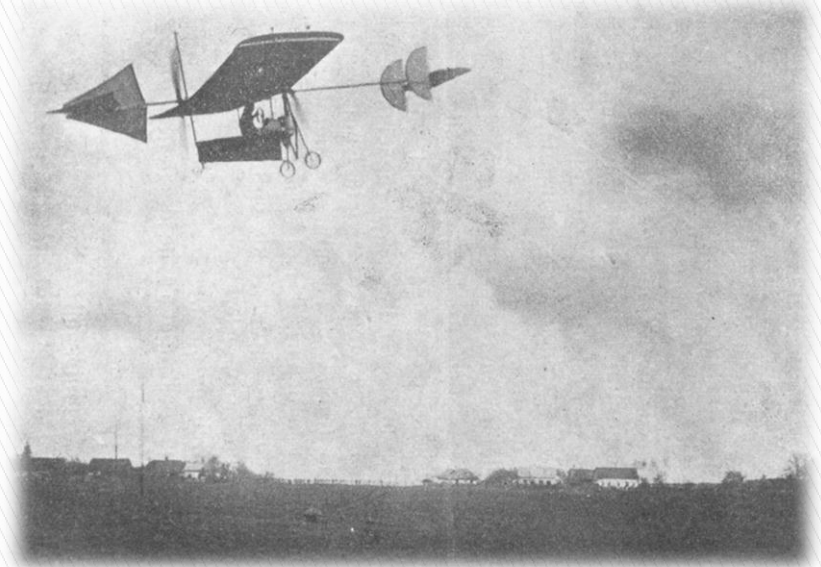
Aurel Vlaicu was born in November 1882, in Bințiți, Hunedoara County. He had a passion for cars and solving technical problems. From 1909 to 1913, he built three original, arrow-shaped airplanes, with flight control planes in front, two coaxial propellers, NACA-like ring around the engine, and independent suspension tricycle landing gear with brakes. What is remarkable about his engineering work is that he perfected the design of his flying machines on scale models.





Aurel Vlaicu

His greatest ambition was to fly over the Carpathian Mountains. He wanted to build a special plane to do this. The plane was planned to be built entirely of metal, the idea itself being remarkable for the time. Heading towards the mountains, he hoped to make the crossing in a Romanian airplane. Unfortunately, his precious dream was not to be realized because over the village Banesti, near the town of Campina, his plane crashed and he was killed.





Aurel Vlaicu



Vlaicu no.1



Vlaicu no.2



Vlaicu no.3



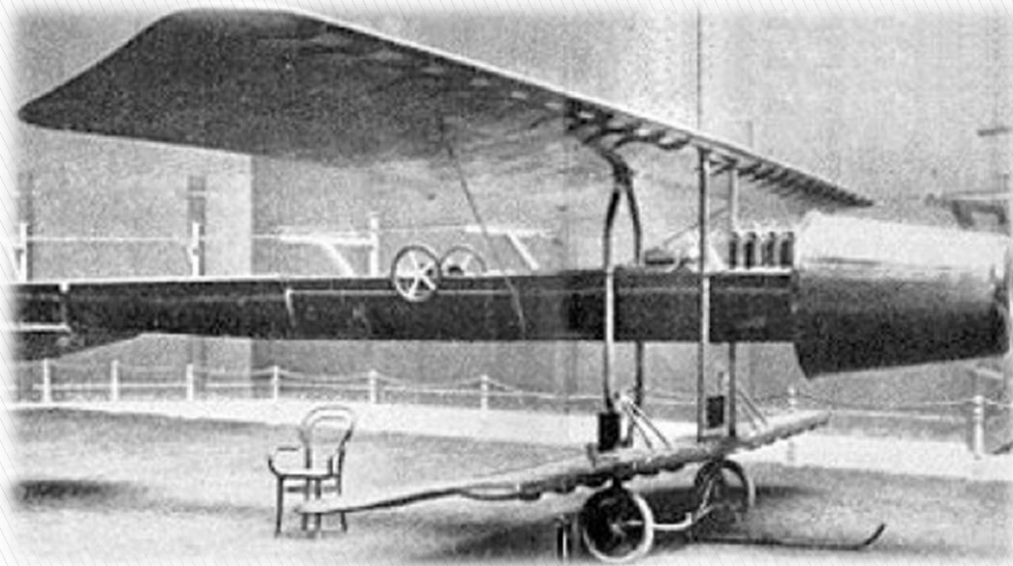
Henri Coandă



Henri Marie Coandă was born in Bucharest, in 1882. He was an aerodynamics pioneer and builder of an experimental aircraft, invented a great number of devices, designed a "flying saucer" and discovered the Coandă effect of fluid dynamics.



Henri Coandă



In 1910, Henri Coandă built an aircraft that was totally different from other “planes”. The machine had two wings and one double room, a span of 10.3 m, 12.5 m long, weighing 420 kg and the propulsion force of 220 kg. The jet engine, invented and built for the first time by Henri Coandă was composed of a piston engine, four-cylinder, water cooled and develops a power of 50 horsepower at 1,000 rpm.

Bibliography

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Iconography

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