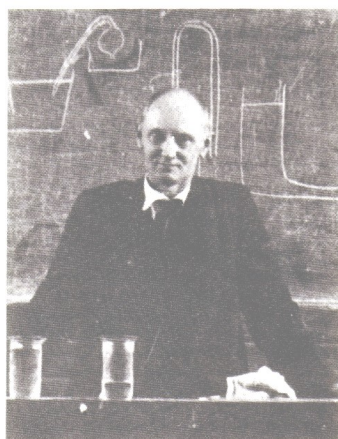


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Poul la Cour History at a glance

* 1846 - 1908



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Contact: Poul la Cour Museum, Møllevvej 21, Askov, 6600 Vejen, Denmark

Tlf. +45 2763 7035

Mail: plc@poullacour.dk

www.poullacour.dk

Poul la Cour

History at a glance

* 1846 - 1908

Poul la Cour's ancestors

Poul la Cour's great grandfather, Pierre la Cour, was born in 1716 in the German state of Brandenburg, where his French parents had fled. Pierre la Cour was only eight months old, when his parents disappeared during a visit to France, leaving him to grow up in his grandparents' French-speaking home.

At the age of 17 he was offered a job as a French teacher to the son of Lieutenant Colonel Bjerregaard, owner of the Ørslevkloster estate in Viborg, Denmark.

With his marriage to Miss Kristiane Frederikke Nohr in Denmark, the Danish family history started.

Poul la Cour's youth

At the age of 12, Poul la Cour enrolled at the Danish Randers Latin School

to study theology, but he soon realized his major interests were in physics and mathematics, which would determine his future.

In 1865, he started physics and mathematics studies at the University of Copenhagen, and wrote his master's thesis in meteorology in 1869.



Poul made a number of international trips in 1870 for the purpose of studying the establishment of meteorological observation stations, and in 1872 he was appointed the deputy director of the newly created Meteorological Institute in Copenhagen.

Poul la Cour the inventor

The prerequisite for establishing the Meteorological Institute was the newly invented telegraph, which became an important tool for receiving weather information from all over the country.

The telegraph had also become an incredibly popular means of communication, as a result however, creating an overloaded system.

Poul la Cour got the idea of improving the system by transmitting multiple signals simultaneously. But he was not the only one to come up with this idea; so did the American inventor Thomas Edison (1847-1931). This sparked an international patent dispute, but that very exciting story is for another report from the la Cour Museum.

La Cour did succeed in developing a useful system that allowed transmission of up to 16 simultaneous messages. The Science Society awarded him a gold medal for this invention, which it described as the most important invention in the electrical field in the previous 50 years.

It was also the start of a long and exciting, but also stressful, period for la Cour, the inventor.

Askov

In the village of Askov, the dean of the local college, Mr. Ludvig Schrøder, had established a program to offer extended learning classes to former students, and sought a teacher with a scientific background and good communication skills.

Poul la Cour's wife wanted her husband to leave the stressful inventive life in Copenhagen, where his work on his improvements to the telegraph system had earned him a gold medal from the Science Society, and encouraged her husband to apply for the position, which he was offered. He accepted, and in 1878 the la Cour family moved to Askov.

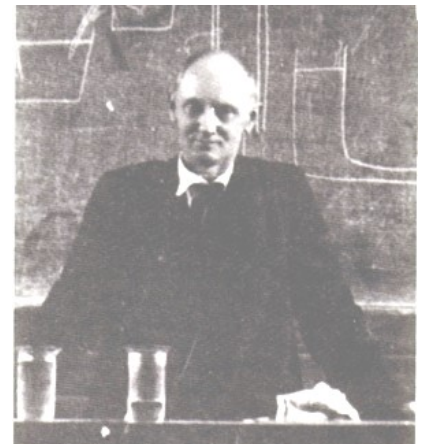
This move was the beginning of a new life and the beginning of an era that, 100 years later, would be of great importance to the wind energy industry.

In Askov, Poul la Cour continued his work with telegraphy, and in 1883 he attended an international fair in Vienna, where his invention, which allowed transmission of up to 16 simultaneous messages, attracted significant attention. In Vienna, he entered an agreement with a Paris-based French businessman, as well as a businessman from Austria-Hungary. However, his efforts never developed as intended and did not generate a major income for him. (Poul la Cour was more an inventor than a businessman.)

In 1881, la Cour published the first edition of his book entitled *Historisk Matematik (Historical Mathematics)*. The Danish edition was last published in 1966. In 1906, the book was translated into German. He published many other books, mainly technical, but also on popular science. Among his works was a comprehensive book describing inventions throughout the ages.

After some time at Askov College, la Cour started to experiment with hydrogen, which he felt would become the power of the future. In order to make hydrogen, he needed electricity, which was unavailable in Askov at that time. With a Danish state grant, la Cour was able to build the first electricity producing wind turbine in Denmark in 1891-1892.

In 1897, la Cour received a new and bigger grant, enabling him to build a test station and larger energy-producing wind turbine in Askov. The state was already interested in researching alternative sources of energy to help offset increasing imports of coal. These buildings are still standing in Askov, and today the buildings are the home of the Poul la Cour Museum.



In the end, it was not hydrogen, but the development of the ideal wind turbine, which turned out to be the life achievement of la Cour and for which he is remembered today.

At his wind tunnel he began systematically testing different blade profiles, which resulted in his registration of the so-called mussel chart, which shows the optimal profile of the overall blade length and resembles today's wind turbine blade profile.

He also discovered the suction on the back of the blade and documented that the output from a wind turbine would increase with fewer rotor blades, showing that it is the swept area of the blades and not the number of blades that determines the turbine's output.

Around the year 1900, the demand for electrical trained workers increased as the market for new electrical installations grew. In response, la Cour created an electrical training education program. One of his students was Johannes Juhl, who would later carry on Poul la Cour's work.

La Cour was the innovator of a large number of projects, all of which in one way or another had a social and community purpose. In 1903, la Cour initiated the establishment of the Danish Wind Electricity Company (D.V.E.S.) to develop, provide, and encourage the use of wind power.



Following the sudden death of Poul la Cour in 1908, the management of the test center was handed to Mr. J. Th. Arnfred. Gradually, the place changed character, with the main purpose to act solely as the town's power plant. It was shut down in 1958.

In 2000, the facility was acquired by the Poul la Cour Foundation, with the goal of making the world aware of Poul la Cour's groundbreaking work.

Today, Poul la Cour's test center is the home of a museum and educational facilities, and every year hundreds of young people visit the la Cour center to participate in its science programs.

By offering these services, the place continues in the spirit of Poul la Cour.

Askov, August 2, 2017

Bjarke Thomassen

Chairman of the board