***Tales of the Wind***

**By Ellen Viste**

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Ellen Viste (b. 1973) is a meteorologist and former climate researcher, now working with climate science communication. She has a PhD in meteorology from the University of Bergen and has also studied non-fiction writing. Her experience in dissemination of weather and climate science extends back to the 1990s. She lives in Bergen – a city known for its rain and as the cradle of modern weather forecasting.

When the winds of the world move the air, it's never just air. There is something in the air. Stories of the wind are about the air and everything it carries with it. Through tales from science, history, and journeys in nature, we learn why the air rarely stands still, and how the perpetual movement of seeds, water vapor, pollutants, and microbes shapes the world.

Must there be wind on Earth? Where does the wind come from? A kayaking trip against the wind introduces the questions. In the first part of the book, we get answers about what wind is and what characterizes the wind in different parts of the world.

Humans are like crabs at the bottom of a sea of air. Red wine and larks were among the ingredients when Galileo Galilei, Blaise Pascal, and Robert Boyle explored air pressure that stirs up this sea – the movements we know as wind. On a June day in 1784, a woman sang from a balloon over Lyon, cheerful and lighter than air. That too is a story of pressure and wind.

Tales of sailors show how the wind guided the Europeans' journeys. Columbus sought the sea route to Asia but instead discovered the trade winds over the Atlantic Ocean. Vasco da Gama defied centuries of reason and had to battle against the monsoon, a headwind that lasts for months on end. Such experiences allowed Edmond Halley to present the world's first wind map in 1686.

If the Earth stopped rotating, would the wind still blow? The wind cannot be stopped, but for centuries, the hope of being able to predict it has been a driving force. In the 1870s, Jesuit monks in Cuba and the Philippines developed hurricane forecasts long before people outside the tropics took weather forecasts seriously. The book takes us further to an attic in Bergen, Norway, in 1919. A group of young men developed concepts of low pressure and fronts through drawing. Along with Vilhelm Bjerknes' theory that weather is actually predictable, they revolutionized the world's weather forecasting.

In 1944, balloons with bombs began to fall over the USA. The Japanese waged war with the jet stream, a band of strong wind high above the ground. The world's first intercontinental weapon was made of paper we associate with hand fans and lanterns.

The second part of the book is about how the wind shapes the landscape and transports both natural and artificial substances from place to place.

A motorcycle race through prehistoric sand dunes in Norway initiates the story of British military man Ralph Bagnold, who drove a Model T Ford in the desert of Egypt. Back in London, he built a wind tunnel to study how sand grains hop when it's windy.

Snow also hops. At the top of the Hardangerjøkulen glacier, Leeds researcher Adam Booth pounds the ground with a sledgehammer. The sound of the blows shows where the wind has gathered the most snow. The glacier is in danger of disappearing due to climate change, and the future depends on where the snow accumulates.

When Charles and Anne Lindbergh flew over Greenland in 1932, they sampled the air. The results showed that seeds and fungal spores can be carried far from their origin. Many plants spread through the wind – both normally and when species enter new areas. We join a volunteer effort to eradicate an alien tree species.

In the rainy city of Bergen, we meet a researcher trying to find out how far the water that hits our heads has traveled. Radioactive waste from Fukushima circled the globe in 2011, and likely foot-and-mouth disease virus reached Denmark in 1982 through the wind from East Germany. Can humans also get sick from opening their mouths? Do we breathe in air that others have exhaled?

Greek gods used the wind and weather to control humans. Could we also take control? The stories of discoveries, art, science, and everyday life also revolve around humans' relationship with nature. With enough wind turbines, could we harness the power of the air? "Stories of the Wind" holds a search for order in a world of uncontrollable forces.