



Erasmus+



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Our visit of The Technical museum in Brno – the largest museum at Moravia

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We visited exhibition: **Water engines and the monument of Viktor Kaplan.**

We were searching the magical power of water. It has been extremely important ever since the industry and technology started to develop. Water that has been convincing us of its great power and strength let people make new machines. Thanks to those machines it was possible to use energy which was necessary to help people with their work. So that the first water wheels appeared.

Water wheels

A water wheel or a mill wheel is the oldest device for acquiring energy from flowing water. First physical evidence of water wheels comes from Mesopotamia from 3th century BC. It was water wheel for lower water – water was coming to the wheel from the bottom.

In 14th century water wheels spread in Europe. Those were water wheels constructed for the upper water – water was flowing from the top.

Water wheels were used for many kinds of hard work e.g. for mineral and stone extraction. Because of this fact we can say that the widely spread opinion of water wheels being used only near mills, is false.

Due to spreading of water wheels all over the world the human kind started the second landscape remaking (the first remaking was in the period of the first farmers).

Examples of water wheels

The sawmill

This was the special kind of saw that used water wheel as a source of mechanical energy. Sawmills were usually a property of millers because the milling of grain was only a seasonal case.

Stoupa

This machine using water energy was meant to mash various kinds of materials. By this device the first waterproof material was made.

Hammer

It was used for smithing of iron and was controlled by two smiths.

River mill

Those were two ships anchored on water stream. The water wheel was between the ships and on the ships there was a milling device. River mill served as a mill for grain.

Water turbines

We know e.g. Pelton turbine, Francis turbine and Kaplan turbine which is considered to be the most important one. For the first time it came to service in the factory manufacturing yarn. One part of this exhibition is devoted to a famous inventor connected to Brno, an Austrian German- Mr. Viktor Kaplan- the



professor at the German Technical University in Brno, constructor of the new type water turbine called Kaplan's turbine.