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DES SCIENCES
GENÈVE

PARC DE LA
PERLE DU LAC

The theatre of experiments

English texts of the exhibition



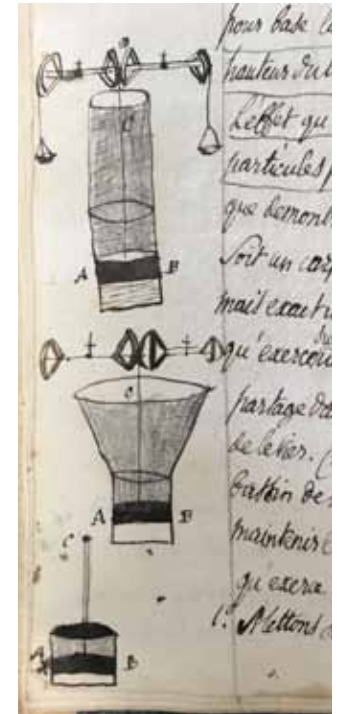
The theatre of experiments

Teaching physics through demonstration and experimentation.

This was the conviction behind the courses Geneva scholar Marc-Auguste Pictet (1752-1825) delivered to Academy students for over 40 years. He also gave public courses for adults which were open to women.

Pictet built up an extensive cabinet of demonstration instruments purchased from the best European makers. These later became one of the founding collections of the Academy Museum and, later still, of the History of Science Museum.

This exceptional collection is at the heart of our exhibition. Replicas of the instruments and interactive displays inspired by the great classical demonstrations of physics, give visitors an opportunity to test and learn about the phenomena being presented. Everyone will be able to find a moment to be inspired and to marvel.



Marc-Auguste Pictet course student notes



Anamorphosis

The theatre of experiments is an original and bilingual (french/english) exhibition of the Musée d'histoire des sciences of Geneva, presented from the 27th of November 2019 until the 21th of February 2021.

More information about the exhibition on the website

www.ville-ge.ch/museum

English translation : Liz Hopkins
Photos: , Gilles Hernot, Philippe Wagneur

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Some of the instruments used in demonstration physics

In order to present science through experiment you need instruments, technical equipment and machines. We have chosen to show you Marc-Auguste Pictet's famous Physics Cabinet or at least what remains of it, that is, about 130 objects of the over 500 which it contained at its height. This was a life's work: forty years of patient collecting, purchasing and keeping abreast of advances in science.

This magnificent resource served to explain the science of physics by manipulation and by experiment. We invite you to tread in the footsteps of experimenters from the past.

Celebrated names in demonstration physics

Since the 17th century famous names have used demonstration and performance, using specially designed instruments, to explain science. The two main centres of public science experiments and demonstration were England and Holland where the stars were Jean-Théophile Desaguliers (1683-1744), Willem Jacob s'Gravesande (1688-1742) and Pieter van Musschenbroek (1692-1761). One of the masters of experimental physics was, without any doubt, Abbé Antoine Nollet (1700-1770). His public lessons in Paris attracted large crowds and his books were bestsellers.



Pair of parable

Demonstration physics – a life's work

For Marc-Auguste Pictet physics demonstrations were his life's work and his commitment helped to build Geneva's reputation in the field. He taught Academy students and often gave public courses at the Société des Arts but also at his famous Physics Cabinet housed at the Academy Museum. A new Chair of Experimental physics was finally created for him by Napoleon in 1809 and the discipline expanded as a result.

Pictet drew on the work of several forerunners. In Geneva, Robert Chouet (1642-1731) had practised demonstration physics. Later, an honorary chair of experimental physics was created for Jean Jallabert (1712-1768) which was discontinued when he left teaching for a career in politics in 1757. Auguste de la Rive followed Pictet and kept the flame alive for posterity in the Academy.



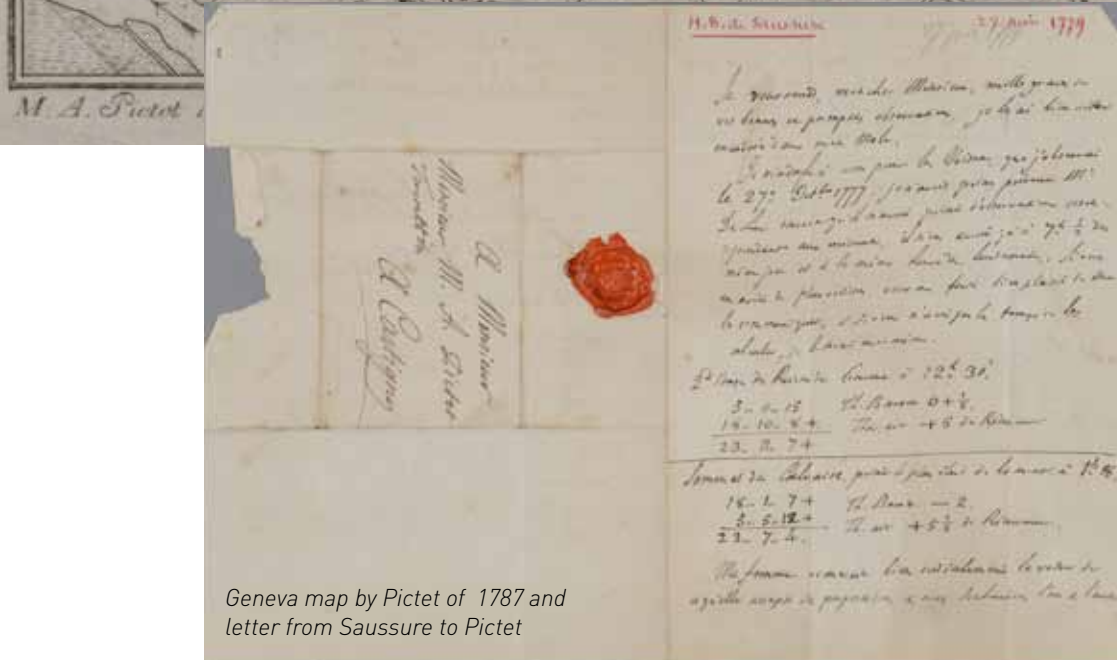
Hydrostatic balance

Biography

In addition to being a scientist and a teacher, Marc-Auguste Pictet was also a journalist, cartographer, politician, citizen and many other things as well...



Portrait of Marc-Auguste Pictet by l'Evêque l'Aîné (Société des Arts, Genève)



Geneva map by Pictet of 1787 and letter from Saussure to Pictet