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Lippmann: history, art and science in one photo

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Gabriel Lippmann was awarded the Nobel Prize in Physics in 1908 for the invention of a method of colour photography exploiting the phenomenon of reflection interference, a rather unknown method today. The original Lippmann plates are very beautiful and extremely rare and, to our knowledge, only one exists in Italy at the Department of Physics and Astronomy in Florence.

The history of the Italian plate is interesting and tortuous: in 1914 Gabriel Lippmann sent three interferometric plates to Augusto Occhialini, director of the physics department of Florence. Two were lost but one was found and saved by the Fondazione Scienza e Tecnica (FST), a scientific and cultural institution based in Florence. A meticulous search in the department's archives followed which brought to light a correspondence between Lippmann and Occhialini. Lippmann's autograph letter made it possible to date the plate, learn its history, learn about the landscape portrayed and certify its authenticity. This artistic, scientific and technical jewel is permanently exhibited within the Enlightening Mind exhibition of the Department of Physics and Astronomy in Sesto Fiorentino.

This contribution will report on the ancient, unknown and brilliant Lippmann methods to produce interferometric photography (which is an ante-litteram nanophotonic approach), as well as history, conservation, and preservation issues of our plate.

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