This camera is normally used to determine the quality of potatoes: Now the art world has discovered the new groundbreaking technology for itself

The Phänomenta is exhibiting a so-called 'hyperspectral camera' for the first time and allows visitors to use the camera. This camera sees much more than our eyes. It makes it possible to record the color distribution (the 'spectrum') of the reflected light for each point of an object, e.g. a potato. The chemical composition of the object can be determined from the spectrum: 'forensics in real time'. In this way, things that are hidden from our eyes become visible, for example in paintings.

Researchers have used hyperspectral technology and other advanced analytical methods to uncover hidden details in paintings by the Danish painter Lundstrøm, for example. Lundstrøm used special shades of blue whose origin and production could be reconstructed - all without damaging the paintings.







Image: Principle of the hyperspectral camera using the example of a painting by Lundstrøm

In collaboration with the TORCH project, a hyperspectral camera developed by Newtec Engineering A/S has been set up at Phänomenta. Visitors can try it out with various objects and go on a journey of discovery.

Interdisciplinary collaboration

The TORCH project, which is funded by Interreg Deutschland-Danmark, brings together the Mads Clausen Institute of the University of Southern Denmark, Konserveringscenter Vejle, CAU Kiel, Newtec Engineering A/S and the Museum of Archaeology Schloss Gottorf. The interplay of image analysis and art historical expertise enables a new and deeper insight into the past and future of cultural objects.

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