

## FOR IMMEDIATE RELEASE

### Recording Malevich's '*Black Square, 1915*' and '*Black Square, 1929*' (Moscow, Russia)

The Factum Foundation for Digital Technology in Conservation (Madrid) is working with the Tretyakov Gallery in Moscow on a project involving the most iconic painting of the Russian avant-garde: Kazimir Malevich's *Black Square*.

The first version of the painting, dating from 1915, has been comprehensively studied, but questions surrounding its conception and biography remain. Factum Foundation's high-resolution surface recordings in colour and 3D will add a further dimension to the already extensive body of research on the *Black Square*, helping both researchers and the general public to better understand this enigmatic work. The data will also provide an accurate record of the current state of conservation of the painting, thus enabling conservators and restorers to monitor change on the fragile surface through time.

This project was made possible thanks to the assistance and advice of Yulian Khalturin, Chief of the Research Department at the Tretyakov, and his colleagues at the gallery.



## Recording and processing the data

In March 2018, a Factum Foundation team was in Moscow to record the two versions of the painting owned by the Tretyakov: *Black Square*, 1915 and *Black Square*, 1929. The team employed the Lucida 3D Scanner to capture the delicate craquelure on the surface of *Black Square*, 1915, as well as the more featureless surface of the 1929 version, painted by Malevich for a retrospective held at the Tretyakov Gallery in the same year. By that time, the 'original' 1915 painting had already begun to show signs of ageing and the artist was asked to create a 'reproduction' of his most famous work.

The Lucida is a laser scanner that was designed by Manuel Franquelo and Factum Arte as a safe non-contact technology for recording fine surface relief. It produces two types of data: a 3D file that can be outputted by printing or CNC milling and a 254 dpi image file for screen-based applications. Careful study of the surface texture of a painting can uncover detail invisible to the naked eye. It is hoped that in this case the 3D data may shed light on some of the more obscure questions surrounding the *Black Square*.



The Lucida in operation © Tretyakov Gallery

Panoramic photography – in which multiple overlapping photographs taken from a single point are merged to create a single, high-resolution image – was used to record colour data and resulted in files with resolutions up to 900 dpi. The accuracy of the colour data is always ensured through digital colour checking with X-Rite colour management, but also by comparison to physical Pantone 'colour sticks'.



FACTVM  
FOVNDATION  
FOR DIGITAL TECHNOLOGY  
IN CONSERVATION

These 'colour sticks' are carefully matched to colours on the painting and can be used to bring the digital colour file in even closer correspondence to the original painting at a later stage in post-processing.



Panoramic photographic equipment and colour sticks being tested © Tretyakov Gallery



Panoramic photography in action © Tretyakov Gallery



The Tretyakov Gallery also provided recent high-resolution infrared and X-ray images of the paintings. Together with the colour, these were ‘mapped’ onto the 3D data to produce a layered archive of images at 254 dpi that can be viewed through an internet browser on any computer screen. With the browser, a user can view two types of data simultaneously – for example, data showing the bright colours visible beneath the cracks on *Black Square*, 1915, can be studied alongside the X-ray image that reveals the earlier works painted over by Malevich when he produced his Suprematist masterpiece.



3D Lucida data of the paintings surface © Factum Foundation





Final colour recording of '*Black Square*' – Colour data and image © Tretyakov Gallery

### **The next step**

The layered image archives are currently available only to researchers at the Tretyakov Gallery, but in coming months the Tretyakov and Factum will be unveiling more results from the recording.

The project is envisaged as an open and ambitious collaboration between the Tretyakov Gallery and Factum Foundation, a joint effort that may in the future lead to further exciting research in the field of the Russian avant-garde.

**Factum Foundation for Digital Technology in Conservation** is a not-for profit organisation founded in 2009 in Madrid by Adam Lowe. It works alongside its sister company, Factum Arte, a multi-disciplinary workshop in Madrid dedicated to digital mediation and physical transformation in contemporary art and the production of facsimiles. The Foundation was established to demonstrate the importance of documenting, monitoring, studying, recreating and disseminating the world's cultural heritage through the rigorous development of high-resolution recording and rematerialisation techniques. The Foundation's activities include: building digital archives for preservation and further study, creating and organising touring exhibitions, setting up training centres for locals to learn the different technologies developed by the Foundation to record their own cultural heritage, and producing exact facsimiles as part of a new approach to conservation and restoration.

**Article in The Art Newspaper Russia:** [www.theartnewspaper.ru/posts/6400/](http://www.theartnewspaper.ru/posts/6400/)

**Press enquiries:** Nicolas Béliard

Tel: +34 915 50 09 78 - [nicolas.beliard@factum-arte.com](mailto:nicolas.beliard@factum-arte.com)