

## The re-materialisation of Caravaggio's *Nativity with Saint Francis and Saint Lawrence*

*A 'performance' of a lost painting by Caravaggio carried out by Factum Arte working with Peter Glidewell, Ballandi Multimedia and Sky TV.*

In 1969 Caravaggio's *Nativity* was stolen from the Oratory of San Lorenzo in the heart of Palermo. For many years the empty frame was a witness to its absence. A photographic copy was put into the frame - an enlargement of a photograph taken by Enzo Brai in 1968. The photo has faded a bit and looks like a colour reproduction prepared for a book. When you enter the oratory you see a printed reproduction - an overly enlarged photograph. In December 2014 Peter Glidewell invited Adam Lowe, the director of Factum Arte to Palermo to meet Bernardo Tortorici, head of the "Associazione Dimore Storiche" and of "Amici dei Musei Siciliani", who has a specific interest in the preservation of the Oratory of San Lorenzo. The story that is told here is the result of that meeting and the intervention of Sky TV and Ballandi Multimedia.

The chapel was designed as a place for prayer for the Convent of San Francesco. It is a small space decorated with an explosion of white stucco figures by the great Sicilian sculptor Giacomo Serpotta and a surround of wood benches inlaid with patterns of intertwining mother of pearl and ivory positioned around the walls and enclosing a rich coloured marble floor. Caravaggio's *Nativity* once occupied the dominant position above the altar. The reproduction that hangs there now is an anti-climax - a reference to the great work that once commanded attention and focused thought.

Peter Glidewell was aware of Factum Arte's facsimile of Veronese's *Wedding at Cana* that now hangs in Palladio's refectory on the island of San Giorgio Maggiore in Venice. This accurate facsimile - true to the original in terms of scale, colour and surface was commissioned by Pasquale Gagliardi, secretary general of the Fondazione Giorgio Cini. Following its unveiling one art historian after another commented on the fact that the facsimile was forcing a reappraisal of the relationship between originality and authenticity.

*Viewers today have a choice: they can go to the Louvre to see what is substantially, if not entirely, the canvas and pigments with which Veronese and his shop worked. Or they can go to San Giorgio Maggiore and see something (almost) visually identical to what is in the Louvre, though made of quite different stuff. The original hangs low down on the wall at the Louvre, between two doors, in the same crowded gallery as the Mona Lisa. The copy at San Giorgio Maggiore hangs at the height and in the space for which it was intended, with the lighting anticipated by Veronese. There is no doubt which is the most authentic object. But which version provides the more authentic experience is open to question.*

Susan Tallman, Art in America, Feb 2009

While making an exact copy of a painting is a painstaking and technologically challenging task, making a meaningful re-creation of a painting that no longer exists presents a different set of challenges. The aim was to produce an image that was in dialogue with Caravaggio's masterpiece - and with Caravaggio himself - to make a performance of the Caravaggio painting that is faithful to the spirit of the original but made with today's technologies and seen through the filter of today's understanding. The gradual move from a 5x4 inch colour transparency to a physical re-materialisation of a painting that is almost 2 meters wide and over 2.5 meters high is a slow and collaborative affair that has involved many people with skills in photography, image processing, digital restoration, painting, restoration, art history, digital printing and varnishing. Caravaggio's *Nativity* will be completed by the end of November as a high-resolution, multi-layered digital print on canvas. It will be shipped to Palermo, stretched, varnished and hung in its frame in the Oratory of San Lorenzo in Palermo. It is hoped that the many hours of thought and the many different skills will result in a new work of art capable of producing an emotional and aesthetic response when you visit the oratory.

Hopefully it will capture the public imagination and attract visitors to look at this great work of art - They will have the additional surprise of seeing the facsimile in the company of Serpotta's wonderful stucco works and realize that some of the figures are also missing.

## The steps of the process to re-materialise a lost painting by Caravaggio

5:4 transparency taken in 1968 by Enzo Brai is a good quality medium-format photograph taken by a skilled photographer. For a reproduction in a book it is adequate but it cannot be used for a 1:1 re-creation (at 1:1 the image is 44ppi). The file was scaled to match the size of the painting and printed at 254ppi resolution - while this can help improve the appearance of the image it does not add information. The result is a soft, blurred image with significant colour fading, colour noise, colour fringe halos, film grain, digital dust and other artefacts - The first task was to remove all these artifacts using various Photoshop filters. Once cleaned the file was printed at 1:1 - the resulting print looks like what it is - an over-enlarged photograph with the wrong contrast levels and inaccurate colours.

In 2009, to coincide with the 400th anniversary of the death of Caravaggio, the Municipality of Caravaggio commissioned the Fondazione Giorgio Cini and Factum Arte to make facsimiles of three paintings by Caravaggio in the Church of San Luigi dei Francesi in Rome. These facsimiles were installed into the Church of *John the Baptist* in the town of Caravaggio and were intended to be the start of an ambitious plan to build a research centre devoted to the artist's work. The three paintings, depicting scenes from the life of *St Matthew* were commissioned for, and are currently housed in, the Contarelli Chapel in the church of San Luigi dei Francesi and were actually Caravaggio's first public commission. Initially the commission consisted of two large paintings, *Calling of St Matthew* and *Martyrdom of St Matthew* 1599–1600, with the third, *St Matthew and the Angel*, added in 1602. The quality and accuracy of the documentation carried out by the team from Factum Arte was unparalleled at that time. Two photographic stages were necessary in order to capture every detail in the paintings. The first was high-resolution photography. All the paintings were photographed in small sections as 1:1 images taken at 700 dpi. This was done using equipment specifically designed to position the camera within the confined space of the chapel. The mosaic of photographs was then stitched together in Madrid to create one huge file for each painting (approximately 6 gigabytes for each painting). Factum Arte's conservation experts also made exact colour charts which were an essential tool to ensure the correct hue, tone and colour when making the facsimiles. As 3D scanning of such dark glossy surfaces was impossible at that time macro raking-light images were also recorded. These images reveal subtle changes in the surface, the complex texture in the ground and paint layers, as well as the cracking and interventions made during restoration. This information was vital for recreating the texture and surface on the facsimiles made in 2010 - but it became the central tool for understanding how the *Nativity* was painted and how it would have looked when Caravaggio completed the painting.

Gabriel Scarpa, head of the digital restoration on this project, carried out a detailed survey of the brush marks, the incisions, the course grounding with strong directional brushmarks in carefully placed areas of the canvas, the impasto in the whites and the extraordinary complexity of colour that exists in the darkest parts of the painting. The way we respond to any surface is dependent on the way it has aged, been cared for and the interventions in the various restorations it has undergone. We were very fortunate to discover that during the last restoration of the *Nativity* at the ISCR (Istituto Superiore per la Conservazione ed il Restauro) in Rome some large format black and white glass plate negatives were produced - these have provided essential information about the brushmarks and the character for the surface. Gabriel Scarpa and Anna Paola Ferrara worked to integrate this tonal information into the files used to produce the facsimile.

From the 1951 images it was clear that the *Nativity* has been through several restorations and that before the last restoration it was in poor condition. As we mixed and merged the images from the ISCR with the high-resolution colour images from San Luigi dei Francesi and mapped these over the

photograph by Enzo Brai a level of complexity started to emerge. The characteristic Caravaggio brushmarks started to appear - bold and confident showing no signs of blending or softening that are characteristic of Caravaggesque painters. But due to the restorations these are now overlaid with a network of cracks that reveal a white ghosting either side of the crack. The process of analysing the surface is one of forensic accuracy mixed with different perceptions - a process that is both abstract and physical but dependent on an understanding of how information is mediated and transformed. In all photography it is essential not to over-expose the highlights or to under-expose the shadows. When recording a painting by Caravaggio this is almost impossible as the contrast is too great and the heavily varnished surface is highly reflective. With the *Nativity* there is a vast amount of information in the dark areas - In any print made from Enzo Brai's photograph one of the angels wings is almost lost and the details of the roof of the stable are invisible. By working with the contrast and brightness levels it is possible to identify some of these details. Colour is one of the least understood and most complex subjects. In the production of a facsimile you are seldom dealing with a standard flat colour. Most coloured materials age in complex ways - some of the most important are the changes in transparency revealing or obscuring the layered nature of the paint. Complex changes in texture result in an irregular surface complete with shadows and highlights and an uneven surface reflectivity. While recording the *St Matthew* paintings in Rome extensive colour notes are made using a series of colour sticks made on site and matched to specific points on the surface of the painting. These are fixed into a book consisting of a 1:1 scale line drawing of the original. A bit of the colour stick is cut off and fixed into the book at the corresponding point on the painting. These notes were used on the *Nativity* to ensure the correct tonal range and colour density. Areas with highlights on skin and other areas including the hair and areas with fabric folds were selected and then transferred to the painting digitally and printed until their complexity matched the colour sticks. Caravaggio has a unique "texture" that distinguishes his paintings. Caravaggio relies on a rough but carefully positioned underpainting to break the edges of his lines and optically blend the colours without physically blending the paint. These brush strokes are impossible to replicate digitally but can, to some degree be replicated manually.

Factum Arte makes its facsimiles using a purpose-built flatbed digital printer and pigment inks. It is controlled by Rafa Rachewsky who has developed a unique approach to layering colour. We are able to overprint in perfect register and control the colour and tone of each area. In all of Caravaggio's paintings the shadows are made of a complex mix of green, brown and blue - the shifts are important and were clearly recorded in the colour notes made in front of the three paintings in San Luigi dei Francesi. In *the Nativity* the whole of the top right section is effectively black but as we worked between the digital files and the print on canvas it was possible to reclaim the missing wing and the roof beams. While the aim is objective scrutiny there was also a need to make manual interventions. These were kept to a minimum and always cross-referenced with the original photograph.

This approach was essential to fill in missing areas of information and to add a materiality to the photograph from 1969. The manual interventions are done by people with different skills and different training - A restorer (Paolo Freri) sees very differently from the painters working on the project (Jordi Pons and Adam Lowe). Peter Glidewell also directed the interventions relying on his knowledge of early C17th paintings - especially in the character of the 'whites' and the speed at which the marks were made. Other experts offered opinions that have enriched the complexity of the dialogue that we were having with Caravaggio as we attempted to re-materialise and perform his masterpiece.

The manual interventions are carried out on 1:1 scale prints on canvas using oil paint. They were then rephotographed at high resolution (1:1 at 600 DPI) using a Clauss 'pan and tilt' head and a Canon EOS5DIII with a 600 mm lens. The move between virtual and physical data is the key to this project as more and more layers of information are merged. These layers need to be unified to merge and harmonise the images from different sources. All the colours were checked against the colour sticks produced in front of the paintings in Rome and cross referred with our knowledge of Caravaggio's palette. With Caravaggio the tonal qualities are critical - above all his complex compositions, often with

strange drawing as if the images are collaged from an assortment of photographs, are symphonies in light and dark. When this is lost the dynamic tensions of the composition dissolve.

The preparation of the grounds was a similarly complex task - first the canvas is covered with a layer of animal glue, then a half-chalk ground. This is first printed with a linear file derived from the original at a scale of 1:1 - these outline guides are used to locate the textures in the surface of the painting both in terms of the white areas with some relief surface and the distinctive grounding method used by Caravaggio. We are also incorporating some of the damaged ground that is visible in the ISCR raking-light photographs taken before the 1951 restoration - these show both the characteristic incised lines that follow some of the contours and a significant amount of damage. It is possible to introduce some of this surface into the physical canvas.

The superficial qualities of paintings (those qualities pertaining to the surface) are critical to the way that we read and respond to them. The relationship between the surface and the colour works on many levels. Factum Arte has spent years trying to record and understand this relationship - it is this obsessive interest that differentiates the facsimiles produced with our specially designed equipment from normal copies. The process of digitally layering information, printing in multiple-layers onto specially prepared canvas on a flatbed printer, manually adjusting in paint, re-photographing at high-resolution, digitally checking every intervention to ensure that nothing is changed, digitally restoring the resulting photographs and then repeating the whole process lasted for almost 5 months.

During this time the team working on the production of this particular performance of Caravaggio's *Nativity with Saint Francis and Saint Lawrence* have cultivated an intimacy with the physical qualities of the original. If we carried on I am sure we could produce other versions - some may reflect a deeper understanding others may be inferior. It is a question of emotionally and aesthetically empathising with the painting. The motivation behind this work is not to produce something that is fake or false - but to reveal and reflect on the extraordinary qualities that make Caravaggio's paintings unique.

For more information, please contact:  
Adam Lowe: [alowe@factum-arte.com](mailto:alowe@factum-arte.com)  
Alice Angossini: [alice@factum-arte.com](mailto:alice@factum-arte.com)  
Tel: 0034 91 550 0978