



St Catharine's College
Cambridge

Reproducing a masterpiece

Self Portrait as Saint Catherine of Alexandria
by Artemisia Gentileschi



Foreword

DR GABRIELE FINALDI,
DIRECTOR OF THE NATIONAL GALLERY

The National Gallery exists so that people can engage with great art. When the Gallery had the opportunity to acquire *Self Portrait as Saint Catherine of Alexandria*, an extraordinary oil painting from about 1615–17 by Artemisia Gentileschi, it was with a view to helping us transform how we collect, exhibit and tell the story of women artists throughout history. We were also mindful that our acquisition in July 2018 represented the first work by the artist to enter a public collection in the United Kingdom.

The original painting had only recently been discovered so it needed careful technical analysis and a five-month conservation treatment before finally going on display in December 2018. We were proud to launch ‘Artemisia’ in 2020, the first major exhibition of the artist’s work in the country, which was overseen by Letizia Treves, at the time The James and Sarah Sassoon Curator of Later Italian, Spanish and French 17th-century Paintings (page 2). Typically hung in Room 32, surrounded by contemporary works by her father Orazio Gentileschi, Caravaggio, Carracci and Guido Reni, the self portrait stands out as a significant addition to the Gallery’s Italian Baroque collection.

We were approached by Garrett Curran (1991, Law) to produce a full-size replica of our original painting to be gifted to St Catharine’s in 2022, coinciding with the completion of the Central Spaces project (a major building project that has renovated and modernised spaces at the heart of the College). The process of creating a high-quality reproduction has taken several months and has been ably led by my colleague, Julie Molloy, Managing Director of National Gallery Global.

I know that Julie and the wider team has appreciated the supportive way in which Garrett and St Catharine’s have partnered with us each step of the way.

The reproduction process has been meticulous and has deepened our understanding of modern printing technology now available to us through our collaboration with Gyr King and Quentin King from King & McGaw (page 3). I am excited by the opportunities open to us in the future if we were to apply this innovative approach to other projects of this kind.

The project extended to producing a replica of the 17th-century frame that is on the original painting. Peter Schade, Head of Framing at the Gallery, was commissioned to reproduce the frame (page 5) and we are extremely pleased with how his work enhances the final reproduction.

On behalf of the National Gallery, I would like to express our gratitude to Garrett for his vision for this gift, and the Fellows and staff of St Catharine’s for facilitating this project in partnership with the National Gallery team.



About Artemisia Gentileschi and her *Self Portrait as Saint Catherine of Alexandria*, c.1615–17

LETIZIA TREVES, FORMERLY THE JAMES AND SARAH SASSOON CURATOR OF LATER ITALIAN,
SPANISH AND FRENCH 17TH-CENTURY PAINTINGS, NATIONAL GALLERY

Artemisia Gentileschi (1593–1654, or later) is the most celebrated female painter of the 17th century. She worked in Rome, Florence, Venice, Naples and London, counting some of the leading European rulers of her time among her patrons.

Artemisia was born in Rome, the eldest of five and only daughter of the painter Orazio Gentileschi (1563–1639), under whom she trained. At the age of seventeen Artemisia was raped by Agostino Tassi, an acquaintance and artist-collaborator of her father's. After a lengthy trial, at which Artemisia famously testified and endured physical torture, Tassi was convicted. In 1612 Artemisia married and moved to Florence, where she established herself as an independent artist, becoming the first woman to gain membership to the artists' academy. By the time she returned to Rome in 1620 her works were greatly in demand. In 1630 she settled in Naples where she continued to enjoy considerable success and where, together with her daughter, she ran a successful studio until her death.

Artemisia's paintings are often read in autobiographical terms, particularly those featuring a strong female heroine, *Judith Beheading Holofernes* (Galleria degli Uffizi, Florence) being the most famous. Though it is debatable whether such works were produced as creative responses to her ordeal, there is no question that Artemisia's personal identity is closely intertwined with her art.

Artemisia was admired during her lifetime but, forgotten for centuries, she has only been properly reappreciated in the last fifty years. Today she is considered one of the most important women artists of all time and continues to inspire novels, films, documentaries and theatrical productions.

Artemisia Gentileschi's *Self Portrait as Saint Catherine of Alexandria*

Painted in Florence in about 1615–17, Artemisia paints herself in the guise of the 4th-century saint, Catherine of Alexandria. After defending her faith before fifty philosophers, she was sentenced to death by the emperor Maxentius and bound to two revolving wheels, studded with iron spikes. Rescued through divine intervention, she was later beheaded. Here she leans on a broken wheel, the instrument of her torture and Saint Catherine's standard attribute. In her right hand she delicately holds the palm of her martyrdom. Artemisia has deliberately chosen to use her own likeness for Saint Catherine, portraying her as resilient and empowered. Artemisia seems to have frequently used her own image in her work and this may have been a conscious act of self-promotion: famed for her beauty and keen to promote her talent in Florence, Artemisia was well aware of the additional appeal her paintings would have by including herself in them.

It is with paintings such as *Self Portrait as Saint Catherine of Alexandria* that Artemisia established her reputation, transforming herself into one of the most sought-after artists of her time.

The process of reproducing a masterpiece

GYR KING, CO-FOUNDER OF KING AND MCGAW



King and McGaw were delighted to receive the commission for this reproduction from the National Gallery. We are proud to hold prestigious licenses from a number of world-leading institutions and our state-of-the-art workshop uses innovative technology to deliver the highest quality replicas of iconic artworks.

The process began with a digital file of the original painting supplied by the National Gallery, which included an X-rite colour checker rendition chart. The ability to detect subtle differences in colour varies between different people and the accuracy of a replica is based on reproducing colour beyond human perception.

Colour is made up of hue (the distinction between colours on a colour wheel), value (the lightness or darkness of a colour) and chroma (the intensity or saturation of the colour). To establish the exact colours in the original painting, the photograph was converted from a colour file capable of displaying 16.7 million colours, to one that could display over 281 trillion different colours - that is 655,536 tones of a single hue. The extra tonal depth of this larger file was crucial to limiting any hue and tone shifts from the original file during the colour correction process. The X-rite colour chart included in the original image was inspected using Photoshop to check each of the colour values; errors in these colour values were edited using the programme's colour balancing tools.

Three different canvases were tested to determine which foundation would accurately reflect the original and give the best colour gamut and varnish appearance, with a weave that was sympathetic to the original work. A Fredrix Archival canvas, manufactured in Atlanta, USA and primed with Titanium gesso, was selected.

The edited image file was then tested using our specialist flatbed printer with eight VariaDot colour heads producing a wide colour range and outstanding resolution, supplemented with a range of bespoke colours. All of the inks used were pigment based with UV protection giving an eighty year lightfastness. The first proof, although not perfect, showed that the machine had sufficient colour gamut to reproduce the painting successfully. The reproduction's colours were measured with an X-rite Exact Spectrophotometer, giving a digital measurement for the hue, value and chroma, enabling comparison with the image supplied by the National Gallery. At King and McGaw, we aim for a digital match (delta E limit) reading of less than 2 with colour alterations above this point down to the expertise of our colour editors (a file can be manually manipulated in Photoshop using an individual's years of experience in colour correcting).

It took four colour proofs to get to a point where we were happy that we had a version that we could take to compare with the original painting. Visual comparison of this version with the original revealed some tonal errors in the image file. The grayscale tones were a little out, the reds in the print were too strong, and the yellows too weak. Using our colour memories and a series of notes, these impressions were taken back to the print studio and very subtle adjustments made to the file. We returned to the National Gallery with updated versions on two further occasions to make visual comparisons and additional adjustments to the image file.

Two prints were created for the final reproduction, both varnished using Lascaux Acrylic varnish to give an extra layer of UV protection to the finished work. The final replica was stretched onto a Russell & Chapple aluminium stretcher, selected to give extra strength as we knew the work would be framed with a shallow recess. This type of stretcher is also very suitable for a work destined for display in a non-environmentally controlled space. The final reproduction was presented alongside Artemisia Gentileschi's original to representatives from the National Gallery and St Catharine's College.



The process of recreating the frame

PETER SCHADE, HEAD OF FRAMING, THE NATIONAL GALLERY

London has become a globally respected and highly-specialised centre for faithful reproductions of antique picture frames – due to its importance as a trading place for Old Master paintings. I have been working in this field for over 30 years and my own workshop tends to use only traditional materials and working practices. The frame that now surrounds the original *Self Portrait as Saint Catherine of Alexandria*, is an early 17th century Tuscan, black-painted reverse cassetta frame with gilded arabesque ornament and parcel gilded profiles. The unusual, near square dimensions of the painting meant that it was difficult to find a contemporary frame. The frame chosen was carefully adapted for the painting when it entered the collection of the National Gallery in 2018, fortunately it only needed modifying in one dimension.

The primary aim of the replica is to create a frame that is a believable historical object and one that is a harmonious, three-dimensional companion to the image it surrounds. For the faithful reproduction of this frame for the gift to St Catharine's, we used Lombard Poplar and all the profiles were made with traditional moulding planes. We have learned over time that using these traditional methods creates a handmade feel that is the basis for an authentic-looking frame. Wooden frames with painted and gilded surfaces are generally covered in gesso, a mixture of glue and chalk – today for Italian frames we use Gesso di Bologna. The surface was then covered with red bole (glue and clay) and painted black with casein paint. Gold leaf (23.5 ct) was applied

with traditional mordant gilding. A 17th century Italian hook matching the original was sourced, providing a truly authentic part of the frame.

The greatest skill in reproducing antique frames is the art of creating a surface that convincingly gives the appearance of age. This was achieved for this commission by carefully abrading the surface, drawing on fine cracks and building up layers of tone. The whole process emulated the surface wear and the accumulation of patina over four hundred years that you can see on the original frame, giving an authentic appearance when the reproduction canvas and frame are displayed together.



Treasuring this important gift to the St Catharine's community

PROFESSOR SIR MARK WELLAND (2016), MASTER OF ST CATHARINE'S

It is a source of immense pride for St Catharine's that we are able to accept this extraordinary gift from Garrett Curran (1991, Law), and we are indebted to Dr Gabriele Finaldi, Julie Molloy and the rest of the National Gallery team in London for agreeing to this first-of-its-kind project.

The ambitious task of realising Garrett's vision to see a high-quality reproduction of Artemisia Gentileschi's *Self Portrait as Saint Catherine of Alexandria* displayed in the College fell to a team of experts and we are incredibly fortunate that they were able to replicate both the painting and frame to an exceptional standard. They have truly excelled themselves and it has been fascinating to learn how Gyr King and Peter Schade applied a blend of traditional and cutting-edge techniques during the process.

We will treasure this celebrated and powerful image of our patron saint, which now hangs in a prominent position above the altar of our Chapel. This gift is especially meaningful for us because Artemisia chose to present herself as a fourth-century martyr who continues to be venerated by not only scholars but also women and girls facing violence and persecution, a cause that the College has engaged with through our partnership with Cambridge Women's Aid. Considering the trauma and difficulties that Artemisia had overcome by the time she created the original painting in 1615–17, I hope our students, staff, alumni, Fellows and visitors will take an opportunity to visit the Chapel to marvel at the rare talent and resilience evident some 400 years on.



LOUIS SINCLAIR

For an institution founded in 1473, it might seem surprising that a reasonable proportion of the works of art at St Catharine's came into our possession in the last hundred years. In fact, the College's fortunes were transformed by successive generations from the early 20th century onwards, after surviving periods of financial pressure.

While our collection includes some special pieces by renowned artists, the majority of artworks are cherished simply because they remind us of how the College has developed over time or because they are associated with our former Fellows, benefactors and alumni who are remembered fondly. In the years ahead I have no doubt that the College will be looking to widen our collection to help us develop and maintain a visual environment that reflects both our history and the current community's sincere commitment to equality, diversity and inclusion. This exquisite reproduction forms part of a new chapter for St Catharine's that will see a more diverse range of art, artists and subjects celebrated through our collection.



Acknowledgements

Dr Sarah Paris (2015, Biological Anthropology), Editor

This booklet was created by St Catharine's College to mark the reproduction of:

Artemisia Gentileschi, 1593-1654 or later

Self Portrait as Saint Catherine of Alexandria, about 1615-17.

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