

## ON THE LOST PORTRAIT OF GALILEO BY THE TUSCAN PAINTER SANTI DI TITO

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**Abstract:** We study here the first established image of Galileo from the engraving made by Giuseppe Calendi at the end of the eighteenth century after a lost portrait of 1601 by Santi di Tito. We show that the engraving cannot be an exact copy, as it contains several inaccuracies which are unlikely to have been present in the original painting. A recent claim of the discovery of the painting by Santi di Tito is examined, and some reasons for suspecting it to be a forgery are outlined.

As an alternative, we suggest a connection between the engraving and a portrait attributed to Tintoretto (which is currently in the collection of the Padua Civic Museum). The engraving and the Padua painting look quite different but can be traced to a common origin if we assume that Calendi added the half body, copied the painting onto copper plate directly, and adjusted the shading slightly. In this way, several features and details of the engraving find a plausible explanation.

Finally, we note a remarkable similarity between the Padua portrait and a figure included in a Cologne painting by Rubens dating to about 1602–1604, which was suggested by Huemer to be Galileo.

**Keywords:** Galileo Galilei, Santi di Tito, Giuseppe Calendi, Peter Paul Rubens

### 1 INTRODUCTION

The most experienced Italian Painters wanted to have the honor of portraying Galileo. Santi di Tito represented him in 1601 in a small painting at the age of thirty-eight, not long before he [Santi di Tito] passed to the other life. (de Nelli, 1793: 872; my English translation).

The above passage is taken from the biography of Galileo by Giovanni Battista Clemente de Nelli (1725–1793), which contains the first—albeit incomplete—iconography of the scientist. In a brief footnote on the same page of his book, de Nelli adds that he also possesses the Santi di Tito painting:

This portrait is the one preserved in my private library, and the engraving made by Mr. Giuseppe Calendi I posted at the beginning of this *Istoria* [biography]. (ibid.).

The engraving by Giuseppe Calendi (1761–1831) taken from the frontispiece of de Nelli's book is reproduced here as Figure 1. At its base, the engraving bears the following inscriptions: "Galilaeus Galilaei Patricius Flor. / aet. suae / Annum Agens Quadragesimum"; below it on the left, "Sancti Titi pinxit"; in the center, "Ex Pinacotheca Nelliiana", and on the right the signatures, "Joseph Calendi sculp. / Raph. Morghen direxit". The inscriptions thus state that Galileo was painted by Santi di Tito (1536–1603) when the scientist was aged 40 and that the engraving was made by Calendi under the direction of Raphael Morghen (1758–1833).

Favaro (1914–1915) already noted that the age of Galileo reported in Calendi's engraving could not be accurate since Santi di Tito died in Florence on 25 July 1603 when Galileo was 39. This inconsistency continued in the work of de

Nelli, wherein he suggests the painting was executed in 1601 when Galileo was 38 years old; in actuality, though, he would have been 37. However, we suggest that the latter could be resolved by assuming that de Nelli refers to the Florentine calendar for the date of the painting. The painting is probably undated, according to the custom of the times, and it is possible that de Nelli had drawn its date from some lost document. The Florentine calendar, used until 1750, set the beginning of the year at 25 March. Thus, if according to the Florentine calendar the painting was executed before 25 March 1601, in the calendar then current the year would be 1602. This interpretation could explain de Nelli's imprecision, and converge towards a very precise date for the picture that therefore must have been painted between 15 February—Galileo's birthday—and 25 March 1602. Conversely, unless the age of 40 indicated in the engraving has a symbolic meaning for maturity it indicates a certain inaccuracy by the engraver, or else a lack of communication between Calendi and de Nelli. However, what de Nelli writes about the most experienced Italian painters applies certainly to late portraits of Galileo made by painters of his time such as Sustermans, Leoni or Furini, but it can hardly be applied to the portrait of Santi di Tito because in 1601 Galileo was not the renowned scientist he was to become in a few years time.

### 2 THE CALENDI ENGRAVING OF GALILEO IS NOT A FAITHFUL COPY

In the engraving (Figure 1) Galileo is depicted in half-length format with his right hand holding a telescope. The telescope first made its appearance in the Netherlands in October 1608 and was



Figure 1: Giuseppe Calendi's engraving after Santi di Tito on the frontispiece of *Vita e Commercio Letterario di Galileo Galilei*, by G.B.C. de Nelli (1793).

reproduced and improved by Galileo in 1609. Discarding imaginative reconstructions, we assume that the telescope was not present in Santi di Tito's original portrait, but was added by Calendi in his engraving made in the late eighteenth century. It is likely that Calendi deemed it appropriate to depict the scientist with the symbol of his most important discoveries. Along with the telescope we cannot exclude the possibility that the entire half-body of Galileo could have been added. In the engraving Galileo is slightly cross-eyed with a pointed nose which turns sideways to the direction of the face. The haircut is quite unnatural and does not end symmetrically along the forehead. Moreover, the engraving lacks a well-defined light source. The shading of the hand holding the telescope indicates that the light comes from the right, while the shadowing on the face indicates that the light comes from above. But the right side of the collar is in shadow while the left side is clearly illuminated, and there is no visible shadow of the head. We note that Galileo turns his shadowed face towards the observer, which is quite unusual for the portraiture of the time. Such inaccuracies are hardly attributable to a painter of the quality of Santi di Tito. They are more likely due to the transposition of the painting into the engraving. The engraving appears of mediocre quality. It is also difficult to understand the role played by Raphael Morghen, who was an excellent draftsman and printmaker himself and author of good portraits of some of the greatest Italian writers of the time, such as Dante, Petrarch, Ariosto, Tasso, Guicciardini and Boccaccio, which were printed in the frontispieces of books.

Santi di Tito was a pupil of Bronzino and probably one of the greatest painters of the Florentine School of the late sixteenth century, during the transition from Mannerism to the Baroque art style (Spalding, 1982). Vasari (1568) dedicated a biography to Santi di Tito in his *Lives of the Artists* where he emphasizes his ability in portraiture, mentioning that of Michelangelo in the painting for Michelangelo's funeral of 1564, which is now lost. Filippo Baldinucci (1770) gives a full account of the numerous Santi di Tito portraits, and in his *Delle Notizie de' Professori del Disegno da Cimabue in Qua* writes:

... by his genius, no less his desire for gain, was he led to do portraits, like those who, possessing an extraordinary security in the drawing, he did with great ease ... He was painting mostly the head and perhaps the hands, and leaving to his young collaborators to paint the hair, if they were females, and all the clothes of females and males ... Of portraits, however, of his own hand there are many and beautiful, but many are somewhat battered. (Baldinucci, 1770: 69; my English

translation).

Most of the portraits mentioned by Baldinucci are lost.<sup>1</sup> By 1602, Galileo was a respected Professor at the University of Padua, but he was struggling with economic problems (Drake, 1978) and could hardly afford a costly commission to a famous painter like Santi di Tito—who was at the peak of his career. When translated into English, Santi di Tito's motto was literally “I have brushes of all prizes”, meaning that he could create cheap or expensive paintings, thereby catering for ‘all pockets’. We may therefore speculate that the Galileo painting was executed on a small remnant of canvas as a gesture of friendship or by the intercession of Ludovico Cardi (also known as Cigoli), who was one of Santi di Tito's pupils, and also a close friend of Galileo since the time when they both took perspective lessons together from Ostilio Ricci in Florence (Chappell, 1975; Reeves, 1999). We also note that according to Viviani (1711: 3), Santi di Tito's tutor, Bronzino, was close to Galileo, but it is possible that Viviani was wrong since Bronzino died in 1572.

We do not know how the painting of Galileo came into de Nelli's possession. After Viviani died, his collection of mathematical portraits was sold by Viviani's heirs to Professor Thomas Perelli, de Nelli, and other assorted buyers. It is thus possible that the picture, and various Galileo documents, belonged to the collection acquired by de Nelli at this time (see Favaro, 1912–1913). De Nelli's Galilean collection was later bought, in 1818, by Ferdinand III, the Grand Duke of Tuscany and, after various vicissitudes, first passed to the Palatine Library and then to the National Library of Florence. However, during all of these moves there is no mention of the Galileo painting.

### 3 THE REPORTED DISCOVERY OF THE SANTI DI TITO PAINTING

A Santi di Tito painting of Galileo owned by a Florentine antique dealer was reported by Federico Tognoni in 2013, and details subsequently were presented in an article published in the *Accademia Patavina* (Tognoni, 2014–2015, see also Figure 2 in Molaro 2016). If the painting is genuine, this discovery would be extraordinary because it would represent one of the first portraits of Galileo to be executed by one of the Tuscan painters of his time. However, as highlighted by Tognoni, the total absence of any information on the provenance of this painting casts a shadow on this important discovery. On the top of the painting there is a written statement “GALILEUS GAL: NOVOR./ORBIUM R.. [unreadable] ... R” which identifies Galileo as the discoverer of worlds. This inscription could not have been made by Santi di Tito in 1601 (or

1602) since Galileo only reported on his discoveries of ‘new worlds’ in the *Sidereus Nuncius* in 1610. As noted by Tognoni (2014–2015), this inscription is similar, though not identical, to the one present in a copy of the Sustermans portrait of Galileo painted in 1640.

There are also other peculiarities that I would like to point out, and that require some explanation. In the painting of the Florentine antique dealer shown in Tognoni (ibid.), the light comes from above with no trace of shadow on the right side of the face, which is present in the engraving. Galileo’s coat also is different in the two works. Moreover, the coat in the painting resembles that of the Galileo portrait painted by Domenico Tintoretto (1519–1594) a few years later. Could Tintoretto have been inspired by Santi di Tito’s earlier painting? But why then did Calendi decide to change the garments? We also note that the light reflections on the coat are very similar to those present in the digitally-manipulated image of Tintoretto’s painting released by the National Maritime Museum, Greenwich a few years ago. The manipulated image is reproduced in Tognoni (2013), while the true original is shown by Molaro (2011). Other differences concern the nose, which is pointed in the engraving but rounded in the painting, and the mustache which is parted in the middle in the engraving. While the painting and engraving are perfectly identical in the contours, quite surprisingly they differ in such an important anatomical feature as the nose. We note that the nose in the engraving is not natural while that in the painting closely resembles that of the famous portrait of Machiavelli by Santi di Tito. Both are far from the characteristic, broad sloping nose which is seen in the other portraits of Galileo. We also note that this painting made its appearance in the same year (2010) as the sensational forgery of the *Sidereus Nuncius* (Wilding 2011, Schmidle 2013). In this book, the illustrations of the Moon were not printed but hand painted, and according to the seller they were made by Galileo himself. The author of the drawings is still unknown, and the Florentine antique dealer’s painting of Galileo could have been conceived in the same context.

#### 4 A NEW PROPOSAL

While awaiting proof of the authenticity of the painting discussed by Tognoni (2014–2015) we propose here the identification of Santi di Tito’s portrait of Galileo with another painting. This painting is the *Portrait of a Bearded Man* in the collection of the Museum of Medieval and Modern Art of Padua (Inventory Number 772), and attributed to Tintoretto.<sup>2</sup> This painting, which is reproduced here as Figure 2, was acquired by the Museum in 1888 as a legacy of Ferdinand Cavalli (1810–1888). Cavalli, the eldest son of

the Earl of Sant’Orso and Elisa Renier, was an important politician and Italian economist. Through his maternal line he was the grandson and universal heir of Paolo Renier (1710–1789), the penultimate doge of Venice. However, the attribution to Tintoretto is recent. Initially Vittoria Romani (1991) attributed it to the Titian School and dated it around the middle of the sixteenth century, but on the occasion of the exhibition “The Spirit and the Body. 1550–1650. One Hundred Years of Portraits in Padua in the Age of Galileo”, which was linked to the International Year of Astronomy, the attribution was reconsidered by Paola Rossi (2009) in favor of Tintoretto, on stylistic grounds. Radiographic and reflectographic analyses showed a pictorial layout characterized by the technical mastery of a great painter. The attribution relies on comparisons with other portraits, such as *Testa d’Uomo* from the National Gallery of Scotland (Edinburgh, catalogue number 689) and the *Busto di Gentiluomo* in the Kunsthistorisches Museum (Vienna, inventory number 701), which are unanimously assigned to Tintoretto from the period between 1549 and 1555. However, in my humble opinion, the definition of the design, the color palette and the artistic style are quite different in the two paintings. The temporal separation between the attributions to Tintoretto and Santi di Tito is approximately half a century, and should be verifiable with advanced dating techniques. In addition, the spectroscopy of pigments might provide new elements for proper stylistic evaluation of the painting and a more robust attribution of this potentially-important work. We asked Jack Spalding, who is an authority on Santi di Tito for an opinion, and after examining the Padua painting, which is currently attributed to Tintoretto, he informed me that it “... certainly could be made by Santi ...” because of its style (pers. comm., April 2016).

At first sight the painting is quite different from the engraving. However, we argue that these differences are exactly the reason why, over the years, the correspondence between the two works has been lost. The painting is an oil-on-canvas of 35 x 30 cm, a size that is well suited to the *piccolo quadro*, i.e. small picture, as described by de Nelli. The painting reproduces only the face, with the head partially incomplete at the top and looking left. In the engraving, Galileo is depicted in half body and is turning his gaze towards the opposite side. We will see that in the event that the engraver was granted some freedom, the two works could be traced to a common origin, thus providing a plausible explanation for the several anomalies we have highlighted in the engraving.

Already determined to amend the original subject by completing the figure of the scientist and adding a telescope, Calendi probably did

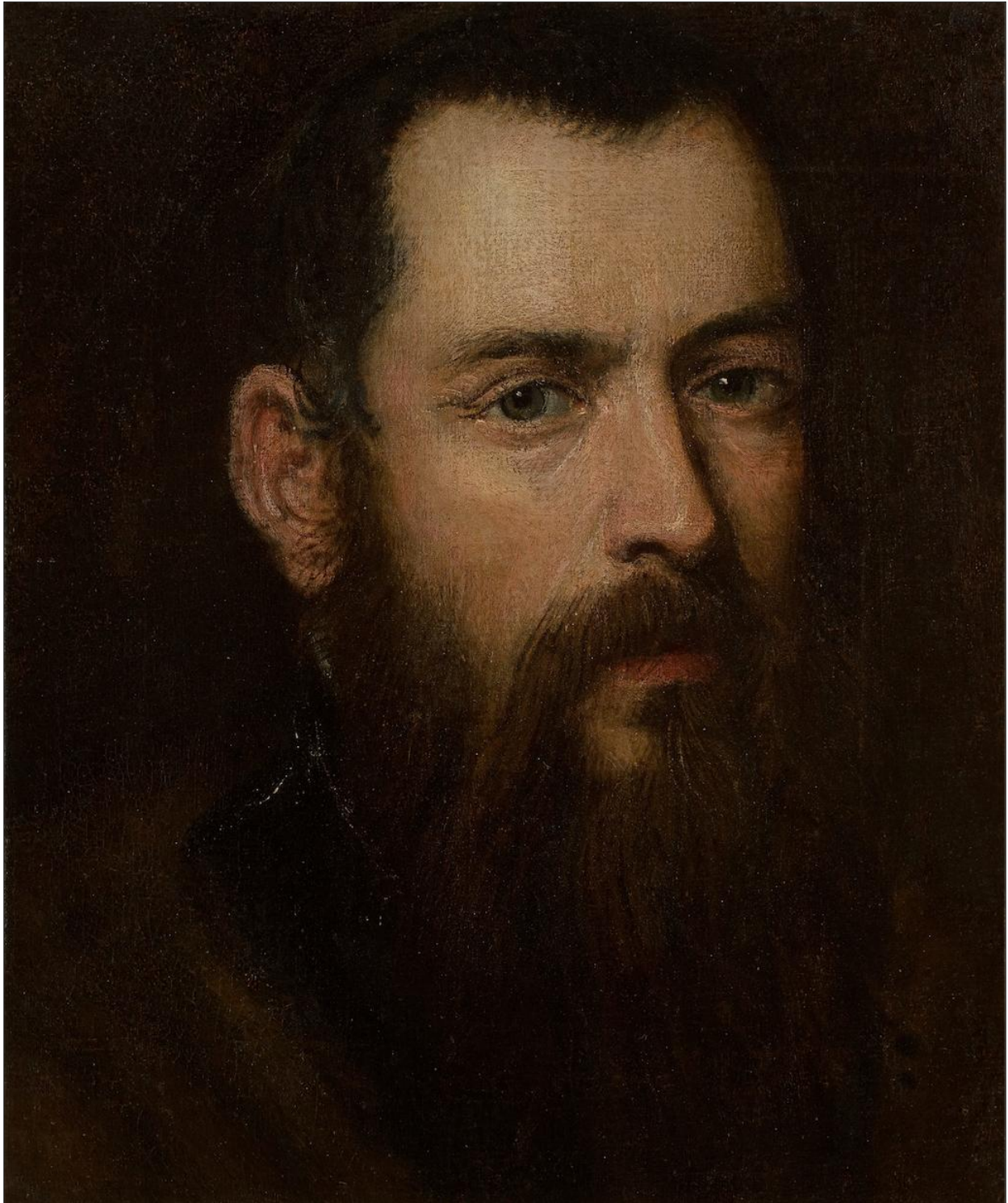


Figure 2: *Portrait of A Bearded Man*, attributed to Tintoretto (Museum of Medieval and Modern Art, Padua, Inventory number 772).

not feel obliged to produce an entirely-faithful reproduction of the Santi di Tito's painting. Therefore, he likely decided to draw a direct reproduction onto the copper matrix, without reversing the image first. In doing so, the face of Galileo would be turned from left to right in the final printing process. This *modus operandi* simplifies the design. It is interesting to follow the mole on the face of Galileo. In the Padua painting the mole is either not present in the painting or partially hidden on the shaded side

of the face. If Calendi had made a direct copy the mole should have been placed on the side fully exposed to light and entirely visible. With the aim to hide the mole, Calendi probably proceeded to shade this side of the face as well as the sides of the face and nose facing the observer. In Figure 3 the reversed portrait of a bearded man and the detail of the face of Galileo by Calendi are placed next to each other in an attempt to illustrate the process adopted by Calendi. This is the reason why in the final



Figure 3: A comparison of Calendi's engraving and the Padua painting inverted horizontally. The shadowing of the illuminated side of the face is, I argue, added by Calendi in order to hide a mole.

printing the sitter shows the dark side of his face to the observer, while the absence of a clear light source in the engraving also can be explained quite easily.

The Padua portrait and Calendi's engraving are superimposed in Figure 4. The fundamental traits of the face are similar and in particular the shape and location of the ear. However, some differences can be noted, such as the position of the eyebrows and the shape of the beard. They could also be due to the procedure described above. In Calendi's engraving, the two eyebrows and eyes are at the same height making them invariant to the reversal of the image.

Moreover, it may also be noted how the outline of the nose in the engraving seems to incorporate both the nose and its shadow as depicted in the painting. A similar thing occurs in the hairline. How this happened is not clear, but it has to do with the way the engraver extracted his depiction of Galileo from the painting.

We already noted a certain lack of communication between Calendi and de Nelli regarding Galileo's age. The mistakes mentioned above reveal that we are dealing with a non-perfect copy, and we think that these inaccuracies offer a logical reconstruction of what could have happened.

## 5 GALILEO AND THE COLOGNE PAINTING BY RUBENS

In 1600, at the age twenty-three, the young Flemish artist Peter Paul Rubens (1577–1640) began travelling through Italy to study Art, and

he remained until 1608. He travelled to Venice and to Rome, where he met Elsheimer, and also to Mantua where he was seeking a position. Around 1602–1604 Rubens painted the *Self Portrait with Friends in Mantua*, an oil on canvas measuring 77.5 × 101 cm that is now in the Wallraf-Richartz Museum in Cologne. Frances Huemer (1983; 2004) and Eileen Reeves (1999) suggested that one of the prominent figures represented in the painting, and reproduced here in Figure 5, is Galileo Galilei, but there is no consensus on this identification as de Maegd (1998) identified this figure as Jean Richardot II.

Galileo probably met Rubens for the first time in Padua in 1602 when the painter spent several months in Venice and again a second time in Mantua which, according to Stillman Drake (1978), Galileo visited twice in 1604. We know Rubens was fond of astronomy. Together with Jan Bruegel the Elder, he painted the *Allegory of Sight* (1617) where several astronomical instruments belonging to the Archduke Albert VII were depicted, including perhaps a telescope made by its unknown inventor (Selvelli and Molaro, 2010; Molaro and Selvelli, 2011). In a letter dated 1 April 1635, Nicolas Fabri de Peiresc wrote to Galileo that Rubens was a "... great admirer of your genius." The astronomical image of the planet Saturn with three bodies as described by Galileo is included in *Saturn Devouring One of His Children* (1637–1638), which is in the Museo del Prado in Madrid. In the last part of his life over a period of five years Rubens worked and reworked the *Landscape by Moonlight* (1635–1640) now at the



Figure 4: Overlay of the negative of Calendi's engraving inverted horizontally and the Padua painting, with a reduced opacity to highlight similarities and differences.

Courtauld Gallery, London, where a natural sky is depicted. Reeves (1999) connects Rubens' Cologne painting with Galileo's Lectures on the nova of 1604 and a possible Stoic and anti-Aristotelic interpretation of the natural world. Lipsius (1547–1606) was the founder and most representative neo-Stoic philosopher, and although he was not present in Mantua, he appears in the painting together with his followers, including Rubens' brother Philippus and two other students (ibid.). It was a subject that Rubens elaborated again in the painting of the

*Four Philosophers* around 1611 on the occasion of the death of his brother. Huemer (1983; 2004) notes several similarities with the authentic portraits of Galileo done before 1642. The characteristic elements of Galileo's face are a large forehead with receding reddish hair and deep-set narrow and intense eyes. These elements are also found in the possible new portrait of Galileo (Molaro, 2012; 2017). Huemer (2004) also noted that all these portraits show Galileo dressed in the simple black costume with a white collar. In Figure 5 we show the

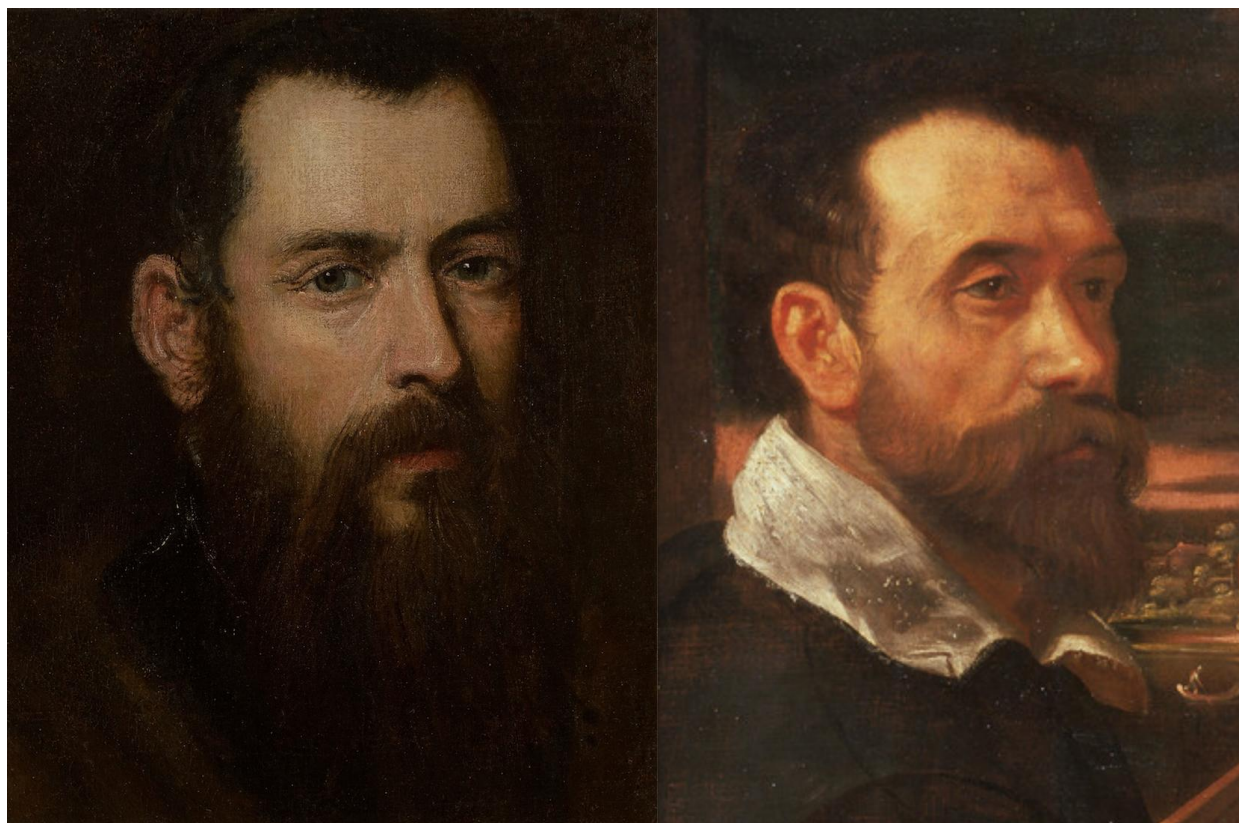


Figure 5: A comparison of A Bearded Man (left) and one of the individuals in Rubens' *Self Portrait with Friends in Mantua* now in the Wallraf-Richart Museum in Cologne.

Padua painting next to the detail of the Cologne one to emphasize the several similarities between the two portraits once the different styles of the two painters are taken into account. Santi di Tito was the last representative of Tuscan Mannerism at the end of his life, while Rubens was at the start of his career and at the dawn of the Baroque age.

It would be interesting to perform a facial-recognition analysis, such as that performed by Conrad Rudolph and his collaborators on other portraits, to determine objective elements of these identifications (see Srinivasan et al., 2015).

## 6 NOTES

1. A notable exception is the one of Machiavelli, now in the Palazzo Vecchio, which must have been painted without its living model since Machiavelli died in 1527.
2. Tintoretto's birth name was Jacopo Comin, but he also was known as Jacopo Robusti.

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ESPRESSO which is expected to see its 'first light' at the ESO-VLT in 2017 in the search for other Earth-like planets and possible variation in fundamental physical constants. In 2012 he succeeded in detecting the Rossiter-McLaughlin Effect during the transit of Venus, and in 2014 he 'observed' the Earth transiting the Sun as seen from Jupiter in 2014. As far as the history of astronomy is concerned, Paolo studied the mystery of the telescopes in paintings by J. Brueghel the Elder, and the secondary light in Galileo's watercolors of the Moon. He even found a possible new portrait of the young Galileo.