

The Interplay of Art Historical Connoisseurship and Artificial Intelligence in Authenticating a Painting Attributed to Anthony van Dyck

Nils Büttner, Alita De Feudis, and Carina Popovici

From Connoisseurship to Art History

‘Connoisseurship has long been suspect. Though essential to the study of material objects, it has been opposed to the more “substantive” discipline of academic art history, and reviled as outmoded and elitist, as tainted by the market, and as concerned merely with such artist-reifying/mystifying issues as attribution, authenticity and the autograph “hand”. The connoisseur – with his (rarely, her) “eye” – has been dismissed as a dinosaur.’¹

When the *Nederlands Kunsthistorisch Jaarboek* opened its call for papers for the 2019 edition with this paragraph, it appeared to herald the end of a method that was already recognised as knowledge-based expertise in the early modern period. In the 17th century, a distinction was made between art connoisseurs or *liefhebbers* (art lovers) on the one hand and ‘*naemkoopers*’ (name buyers) on the other. Since then, a steadily growing number of books for artists and their clients have documented the historical notions of quality, authenticity and style, the assessment of which requires trained judgement. The connoisseur is generally required to be able to judge the quality of a work, which is why s/he must know the different styles of the artists in order to be able to make attributions. The connoisseur must also be capable of distinguishing between copies and originals.

Connoisseurship is, however, not a method in the strict sense. In the classical understanding, the word method, from the Greek *μέθοδος*, refers to the inquiry into the pursuit of a goal in a regulated procedure.² The means used to achieve this can differ, whereby their proper application is always dependent on a systematic approach using a variety of tools. To this day, connoisseurship draws on a broad repertoire of methods, the most important of which is comparison. This was already obvious to Roger de Piles, who in 1699 wrote that ‘to know whether a drawing is by a particular Master, it is necessary to have seen many others by the same hand with great attention’.³ So the most important method of connoisseurship has always been comparison. However, the comparative ‘tools’ used largely depend on the person carrying out the analysis, and are more often than not incomprehensible to outsiders, so that the conclusions of experts appear more intuitive than method based. This lack of transparency, combined with often doctrinaire opinions, led Max J. Friedländer to warn of ‘spiritual narrowness’, ‘questionable subjectivity’ and ‘an inclination to be guided by sentiment’ as early as 1942.⁴ In contrast to this, science consists of ‘a multitude of different but interconnected practices and forms of activity, all of which serve the common goal of identifying general characteristics and legitimate relationships.’⁵ In science, the method must be transparent and its results reproducible, which it then generally allows these results to become part of a shared repertoire of knowledge.

From Art History to Technical Art History

Up to now there has been a lack of objective criteria for making comparisons and arriving at a general system that could be used for establishing art-historical principals for dating and attributing of works of fine art.⁶ The material to be categorized is too disparate, its sheer quantity too great. However, there are increasing attempts to make progress in this area, usually with interdisciplinary approaches which ideally arrive at the same result via different paths and using different methods. In the 19th century, art history also expanded through a constantly growing repertoire of scientific methods. Already in 1888, a museum laboratory was founded at the Royal Museums in Berlin. The chemical analysis of materials and the examination of artworks with a microscope quickly became common practice. As early as the 1920s, paintings were subjected to the relatively new process of x-radiography. Today, Raman spectroscopy, micro X-ray fluorescence analysis and hyperspectral imaging are also used to analyse paintings. The results are fed into the humanities discourse by specialists. Nowadays, connoisseurship is an interdisciplinary field of study at the crossroads of the natural sciences and the humanities, in which an increasingly broad spectrum of methods, including technical investigation, is being used. As a branch of the humanities, art history has experienced a material turn and has focused increasingly on the artwork as a physical object. It is no longer only visual evidence of an artist's style, the themes and content of the works, their iconography and iconology, and their provenance that play a role, but also the materials, techniques and production methods used to create them. A new field of research emerged under the term technical art history.

From Technical Art History to Artificial Intelligence

On 26 September 2021, The Guardian newspaper published an article questioning the authenticity of one of the most famous paintings in The National Gallery, London, Rubens's *Samson and Delilah*.⁷ The article was grounded on an analysis conducted by Art Recognition, whose AI investigation concluded that the painting might not have been the work of Rubens. These results were met with opposition from various scholars who maintain that this painting is by Rubens. After this controversy, the Rubens experts and Art Recognition proceeded along their separate paths. The scholars carried on with their traditional methods of analyzing paintings, whereas Art Recognition continued to advance their technology,⁸ which was later published in peer-reviewed Computer Science journals.⁹

Despite these advancements, the first author of the present article maintained a sceptical stance. His scepticism was expressed with emphasis in an article which he wrote, published online in 2024.¹⁰ The article criticized Art Recognition's technology and its results entirely from the perspective of art history and without any particular understanding of the principles of AI. In a rather polemical tone, it went so far as to suggest that the company was less interested in improving the technology than in making money from the results generated by AI. The unfortunate wording gave the impression that clients could have bought the results they wanted. This was never the case and the article never intended so to imply.

The exchange generated by this article has led to a plan to enter into cooperation. Specifically, the expertise of art historical connoisseurship has been integrated with the AI technology to analyse a painting initially attributed to the Flemish painter Anthony Van Dyck (1599–1641), whose works continue to give rise to connoisseurship disputes to this day. The details of this joint analysis are presented in the remainder of this article.

Analysing a Painting Attributed to Van Dyck with Connoisseurship and AI

The study of Van Dyck's oeuvre exemplifies a significant change in the art-historical approach. As early as twenty years after the painter's death, the first legal dispute arose over the authenticity of his paintings. The canon of Antwerp Cathedral, named François Hillewerve, had acquired a series of paintings that their previous owner had purchased from Van Dyck himself. When Hillewerve displayed the expensive acquisitions in his home, he was made aware that they were not Van Dyck's own works, but copies. This led to a trial in which a total of forty witnesses were heard between September 1660 and September 1661. One particularly interesting witness at this hearing was Van Dyck's pupil Justus van Egmont, who could not remember whether he himself had executed one or two of the paintings in question.¹¹ Since then, there has been no lack of attempts to distinguish between works by Van Dyck himself, paintings by his workshop assistants retouched by him and copies made without his involvement. With the possibility of making photographic reproductions, the connoisseurial history of art gained unprecedented opportunities for comparison, the progress of which is already tangible in the volumes of the Classics of Art series. In 1902, Emil Schaeffer had presented a catalogue raisonné with 537 illustrations. This selection was completely revised by Gustav Glück, who in 1931 aimed 'to reproduce as many of the master's important known compositions as possible.'¹² In 1980, the American art historian Eric Larsen (1911–2006) published the first catalogue raisonné to meet modern standards. It is a two-volume catalogue of Van Dyck's works, which was released in an updated English edition in 1988.¹³

All these earlier attempts to catalogue Van Dyck's oeuvre then culminated in a catalogue raisonné jointly compiled by four specialists in the field under the direction of Susan J. Barnes, which lists a total of 827 paintings and oil sketches, 745 of which are presented as works by the artist himself.¹⁴ This catalogue, published in 2004, also represented the starting point for further research, such as The Jordaens Van Dyck Panel Paintings Project, in which a total of 297 oil paintings on wood panels by or associated with Van Dyck and Jordaens in 108 public and private collections in 14 countries were analysed. Projects such as the systematic art-technological study of the paintings in the Alte Pinakothek in Munich or the art-technological study of the painter's early self-portrait in the art collection of the Vienna Academy of Arts have also ensured that art-historical expertise has been underpinned by a broad fund of art-technological research data.

As the AI progresses, a natural development is to combine the art historical knowledge on Van Dyck's oeuvre with the latest developments of AI technology. As in the case of any expertise based purely on connoisseurship, the success of AI analysis is crucially influenced by the type and quality of the comparative material. Thus, a goal of this project has been to review and improve the training dataset fed into the AI model. This dataset has been jointly revisited to ensure it reflects the current state of research.

Historical Context and the State of Research

The painting in question (Fig.1), attributed to Van Dyck, is a portrait of Don Diego Messía Felipe de Guzmán, Marqués de Leganés (1580–1655). He was among the most influential men in Spain, as a nephew of Gaspar de Guzmán, the powerful minister of the Spanish king, and later as the son-in-law of Ambrogio Spinola, known for the famous capture of Breda. Don Diego Messía was sent to Brussels several times between c. 1600 and 1635 as a special envoy in the Spanish Netherlands. Van Dyck likely met him between May 1630 and April 1631, when both were at the court in Brussels.



1 Portrait of Don Diego Messía Felipe de Guzmán, Marqués de Leganés

The portrait of the Marquis of Leganés has long been known to researchers. Art historian Ludwig Burchard, whose extensive collection of information on 17th-century Flemish painting remains a key part of the Rubenianum's documentation, saw this painting between the World Wars. Burchard noted that it was likely a work from Van Dyck's workshop, rather than by Van Dyck himself. During the interwar period, the painting was attributed to Antonio Pereda, a Van Dyck pupil known for replicating his works. However, experts disagreed on this attribution.

In 1978, Frans Baudouin, the former director of the Rubens House, and curator Nora De Poorter from the Rubenianum, examined the painting in Nuremberg after it had been offered for sale to the city of Antwerp. They also concluded it was a good workshop piece.

In the catalogue raisonné by Larsen, the portrait of Marquis of Leganés under number 827,¹⁵ accepted by Ludwig Burchard as the original version, has been assigned only the status of a second version (Fig. 2). This painting is currently housed in the Tokio Museum.¹⁶ As the first version, Larsen published an almost identical painting that is in the Fundación Santander in Madrid, which he included in his catalogue under number 826 (Fig. 3).¹⁷

In the authoritative catalog by Barnes, the painting in Tokyo is published as the first version under number III.¹⁸ The catalog entry also refers to the very good workshop repetition in Madrid.¹⁹ To summarize, the painting is recognized as a workshop creation with a provenance dating back to the 17th century, as detailed by José López Navío in 1962 and Mary Crawford-Volk in 1980.²⁰

Provenance

In a 1637 inventory of the Marquis of Leganés' collection, which lists 750 paintings, the portrait is recorded as number 468: "Don Diego Felipe de Guzmán, Marqués de Leganés, in half armor with red riding breeches, by the hand of Van Dyck."²¹ The same painting appears in inventories from 1642 and 1655, under the same number.²² It passed by inheritance to Ventura Osorio de Moscoso, 9th Count of Altamira, in 1726, and to his successor in 1753.²³ It is possible that the work, which remained in the family's possession since the 17th century, is identical to the one owned by José de Madrazo y Agudo (1781–1859) in Madrid in 1856.²⁴ It then passed to José de Salamanca y Mayol, Marquis of Salamanca, and was exhibited at his Finca de Vista Alegre in 1861. It was auctioned in Paris in 1867²⁵ and 1875, later owned by art dealer Julius Böhler, then acquired by State Minister Max Wallraf in 1917²⁶. In 1950, it belonged to art dealer Günther Abels, later it was privately owned in Switzerland.²⁷ In 2010, it has been stored at Welti-Furrer Fine Art AG.

It must be noted that the attributions in early modern inventories followed different criteria than those of modern art scholarship. When artist names are noted in early modern inventories (even



2 Tokio Museum



3 Fundación Santander, Madrid

though in most of the cases this doesn't actually happen), they often serve as a kind of a designation of the artist's workshop indicating origin. They should by no means be considered as evidence of execution by the painter's own hand. Especially in the 1630s, "all works that came from Van Dyck's studio were at least partly produced collaboratively. Repetitions of his own paintings were created under Van Dyck's supervision in his workshop and were given a personal final touch, which ensured a seamless transition between copies and variants."²⁸ Many paintings that came on the market as Van Dyck's during those years had never been touched by the master himself.

Art Historical Investigation

The painting in question (Fig. 1) has been thoroughly examined by the first author of this article. The findings presented below also include insights gained from the inspection of the other two portraits of the Marqués de Leganés, the one in Tokyo, and the one in the Colección Santander.

The painting in question is executed on a fine canvas, which was relined during a restoration likely carried out some time ago. During this restoration, the paint layer was heavily compressed. The canvas is primed with a very thin reddish-brown, ground which is highly unusual for a 17th-century Antwerp painting, and finds no parallel in autograph works by Van Dyck from the second Antwerp period. The painting style, which avoids any visible brushstrokes and carefully smooths out all color transitions, also shows little resemblance to Van Dyck's original works. The hands are modeled far less skillfully compared to the painting in Tokyo or the one in the Colección Santander. The clothing lacks artistic

quality and appears rather flat. Likewise, the background landscape is painted with little liveliness and lacks any sense of depth.

Indeed, the conclusion aligns with that of the other scientists who have previously examined this painting, consistently not considering it as an autograph work. However, there is no doubt that this painting dates back to the 17th century. An indication from an art-technological perspective is the use of lead-tin yellow in the yellow lights, a pigment that fell out of use rapidly after the end of the 17th century.²⁹

Finally, it should also be noted that the conservation condition is not particularly good. The painting has been heavily cropped, leaving the helmet, once fully depicted in the background, only partially visible. Additionally, almost the entire background has been restored long ago, as highlighted by examination of the painting under UV light.

The painting in question is certainly not an autograph work of the master, but rather a workshop variant of the portrait he designed. Such freely revised versions of Van Dyck's original designs are well-documented, as seen, for example, in a copper engraving designed by Paulus Pontius (1603–1658), which also depicts the Marqués de Leganés.³⁰

Artificial Intelligence

The AI art authentication system developed at Art Recognition is based on a deep artificial neural network. This network is firstly trained to learn the main features of an artist from photographs of authentic pieces, along with negative examples — photographs of artworks similar in style, but not created by the artist. Once the training is complete, the AI can evaluate new, previously unseen paintings to determine if they are by the artist it was trained on. This section is dedicated to explaining the process employed by Art Recognition, which will be broken down into smaller steps, and to presenting the analysis and results on the painting depicting Don Diego Messía Felipe de Guzmán (Fig. 1).

The first step in the process involves compiling a collection of images of authentic artworks by an artist, known as the “authentic set.” The Van Dyck authentic dataset has been validated against the Barnes catalogue raisonné. This dataset, containing 528 images, also includes the authentic version from the Tokio Museum (Fig. 2). The subsequent stage involves gathering negative examples, to form the so-called “contrast set.” This dataset includes artworks by related artists — such as students, masters, collaborators, and admirers — along with known counterfeits, modern imitations, and AI-generated digital artworks in the artist's style, known as synthetic images. These negative examples help the AI distinguish between authentic and non-authentic art. The Van Dyck contrast set contains 1,475 negative examples. Of these, 256 images are photographic reproductions of artworks by Peter Paul Rubens, Jan Boeckhorst, Thomas Willeboirts Bosschaert, and Peter Thijs. Additionally, 358 images are imitations, copies, and paintings attributed to Van Dyck's workshop. The remaining 861 images are synthetic images in the style of Van Dyck. They comprise a significantly larger portion of the contrast set due to their usefulness in stabilizing the training process.

The actual AI training is divided into three stages: data pre-processing, training, and testing. The first phase (data pre-processing) involves data augmentation techniques. Images are divided into patches to achieve a higher level of detail, starting from a macroscopic level and progressing to a microscopic dimension. This method allows for detailed analysis of brushstrokes as well as higher-level

elements. Additionally, changes in hue, saturation, and contrast are applied to the images to account for variations in photos taken with different cameras and under different lighting conditions.

During the training phase, the AI learns through a process of self-correction. The AI is programmed to view all images multiple times. After the initial viewing, it assigns labels to those images based on the features it has learned. These assigned labels are then compared to the actual labels. At the end of the first cycle (known as an epoch), the AI typically identifies many images incorrectly. In subsequent cycles, it uses the learned information to reduce these mistakes, continuing this process until it achieves a high level of accuracy, meaning that almost all images are labeled correctly. The model is considered successfully trained once it reaches a satisfactory level of accuracy.

Finally, the trained model is tested using a separate subset of the dataset, approximately 10% of the total, which includes both authentic and non-authentic images. This subset is not used during the training phase and is reserved to evaluate the model's accuracy. For the Van Dyck model, the testing accuracy is 97%.

Since the trained Van Dyck model has a very high testing accuracy, we can confidently proceed with calculating the final authenticity probability for the artwork in question. The AI determines this probability by comparing the learned features with those identified in the new painting. For the analysed painting, the AI returned a probability of 79% that the artwork is not authentic. Therefore, the AI result aligns with the findings of the art historical investigation, confirming that the painting was not created by the hand of Van Dyck.

Conclusions

This article presents a collaborative project that highlights the evolving relationship between traditional connoisseurship and Artificial Intelligence in the field of art authentication. The first part of the article reviews the historical progression from traditional human connoisseurship to technical art history and Artificial Intelligence. The second part focuses on a painting depicting Don Diego Messía Felipe de Guzmán, Marqués de Leganés, allegedly by Van Dyck, detailing both the art historical and AI analyses conducted on this painting.

A thorough art historical inspection of the artwork concluded that its style is inferior to that of Van Dyck, lacking liveliness and depth, and showing no resemblance to his genuine paintings. Additionally, the grounding layer used in the portrait is atypical for Van Dyck's second Antwerp period. These findings suggest the painting most likely originated from his workshop rather than himself. The AI analysis determined with 79% probability that the painting is not by Van Dyck. This conclusion was reached after training the system on a comprehensive dataset of photographic reproductions of the Master's works and a set of negative examples. The AI training dataset was compiled jointly, underscoring the essential contribution of art experts in creating the datasets. Therefore, both the art connoisseur and the AI reached the same conclusion regarding the painting's authenticity. Integrating traditional methods with AI advancements promises to transform the field of art authentication, making it more robust and transparent.

Endnoten

- 1 *Netherlands Yearbook for History of Art*, issue: 'Connoisseurship', *ArtHist.net*, 02.11.2017. URL: <https://arthist.net/archive/16633> (Last access 24.02.2024).
- 2 Joachim Ritter, 'Methode', in: *Historisches Wörterbuch der Philosophie*, V, Darmstadt 1980, pp. 1304–1332.
- 3 Roger de Piles, *Abregé de la vie des peintres*, Paris 1699, pp. 72–73: 'Pour connoître si un Dessein est d'un tel Maître, il faut en avoir vû beaucoup d'autres de la même main avec attention'.
- 4 Max J. Friedländer, *On Art And Connoisseurship*, Boston 1942, p. 151.
- 5 Uffe Juul Jensen, 'Wissenschaft', in: Hans Jörg, ed., *Europäische Enzyklopädie zu Philosophie und Wissenschaften*, IV, Hamburg 1990, pp. 911–921. Here: p. 911: 'Wissenschaft [besteht in] einer Vielzahl unterschiedlicher, aber miteinander verbundener Praktiken und Tätigkeitsformen, die alle dem gemeinsamen Ziel dienen, allgemeine Merkmale und gesetzmäßige Beziehungen [...] zu benennen'.
- 6 An attempt in this direction is the research project 'Kennerschaft heute: Die wissenschaftliche Erschließung der niederländischen Zeichnungen' at Klassik Stiftung Weimar, cf. URL: <https://www.klassik-stiftung.de/forschung/forschungsaktivitaeten/forschungsprojekte/kennerschaft-heute/> (Last access 22.02.2024).
- 7 Dalya Alberge, 'Was famed Samson and Delilah really painted by Rubens? No, says AI', in: *The Guardian*, 26 September 2021, URL: <https://www.theguardian.com/artanddesign/2021/sep/26/was-famed-samson-and-delilah-really-painted-by-rubens-no-says-ai> (Last access 22.02.2024).
- 8 Ludovica Schaerf, Eric Potsma and Carina Popovici, Art authentication with vision transformers, in: *Neural Computing & Applications. Special Issue on Visual Pattern Recognition and Extraction for Cultural Heritage*, 2023, URL: <https://doi.org/10.1007/s00521-023-08864-8>.
- 9 Johann Ostmeier, Ludovica Schaerf, Pavel Buividovich, Tessa Charles, Eric Postma and Carina Popovici, Synthetic images aid the recognition of human-made art forgeries, in: *PLOS ONE*, February 2024, URL: <https://doi.org/10.1371/journal.pone.0295967> (Last access .2024)
- 10 Nils Büttner, *On AI and Connoisseurship* (2023). URL: <https://www.codart.nl/feature/museum-affairs/on-ai-and-connoisseurship/>.
- 11 See Friso Lammertse, 'Van Dyck's apostles series, Hendrick Uylenburgh and Sigismund III', in: *The Burlington magazine*, 144, 2002, pp. 140–146, here: p. 146.
- 12 Gustav Glück, *Van Dyck. Des Meisters Gemälde in 571 Abbildungen (Klassiker der Kunst, XIII)*, Stuttgart – Berlin – London 1931, p. ix: 'möglichst alle wichtigen bekannt gewordenen Kompositionen des Meisters wiederzugeben, soweit sie zugänglich waren und nicht widrige Umstände die Aufnahme verhinderten. Nicht aber in allen Fällen konnte das beste erhaltene Exemplar der einzelnen Kompositionen abgebildet werden, weil es entweder nicht erreichbar war oder nur durch zeitraubende Untersuchungen und Reisen hätte festgestellt werden können'.
- 13 Erik Larsen, *L'opera completa di Van Dyck, 1613–1626*, Milan 1980; Erik Larsen, *The Paintings of Anthony van Dyck*, I–II, Freren 1988.
- 14 Horst Vey, in: Susan J. Barnes, Nora De Poorter, Oliver Millar and Horst Vey, eds., *Van Dyck: A Complete Catalogue of the Paintings*, New Haven (CT) – London 2004.
- 15 Larsen 1988 (see note 13), p. 325, Nr. 827.
- 16 Glück 1931 (see note 12), p. 424.
- 17 Larsen 1988 (see note 13), p. 325, Nr. 826.
- 18 Barnes & al. 2004 (see note 14), p. 323–324, Nr. III.95.
- 19 Barnes & al. 2004 (see note 14), p. 324: 'A very good repetition (canvas, 200 × 125 cm) is in the collection of Banco Central Hispano, Madrid (Splendeurs d'Espagne et les villes belges 1500–1700, vol. 2, Brussels 1985, no. B27; Larsen 1988, no. 826'.
- 20 José López Navío, 'La gran colección de pinturas del Marqués de Leganés', in: *Analecta Calasanciana*, 8, 1962, p. 259–330; Here: p. 328, n. 61, under Nr. 468; M. Crawford Volk, 'New Light on a Seventeenth Century Collector: The Marquis of Leganés', in: *The Art Bulletin*, LXII, 1980, p. 256–268.
- 21 José Juan Pérez Preciado, *El Marqués de Leganes y las Artes* (typescript of the dissertation), Universidad Complutense de Madrid, I–II, Madrid 2010, Here: II, p. 344.
- 22 López Navío 1962 (see note 20), p. 328.
- 23 Mercedes Agulló y Cobo, *Documentos para la Historia de la Pintura Española*, I, Madrid 1994, p. 158.
- 24 *Catalogo de la Galeria de Cuadros del Excmo. Sr. D. Jose de Madrazo*, Madrid 1856, p. 153, Nr. 635: 'Retrato en pié del Marqués de Leganés, Duque de San Lúcar la mayor, general de Artillería de España y Gobernador de Flandes Todo armado, descubierta la cabeza, terciada al hombro una banda encarnada; en la mano derecha el bastón de mando, y la izquierda en el puño de la espada'.
- 25 The format was even larger back than: 'Toile. Haut, 2 mét. 6 cent.; larg. 1 mét. 20 cent'.
- 26 'Wallraf, Max, Staatsminister und Staatssekretär a.D., Berlin, Lessingstr. 1', see *Amtsblatt für den Regierungsbezirk Potsdam*, 1928, p. 136.
- 27 Barnes & al. 2004 (see note 14), p. 324.

- 28 Nils Büttner, review of Susan J. Barnes: Van Dyck. A Complete Catalogue of the Paintings, New Haven / London: Yale University Press 2004, in: *Kunstform*, VII, 2006, Nr. 5, URL: <https://www.arthistoricum.net/kunstform/rezension/ausgabe/2006/5/3648> (Last access: 28.03.2024).
- 29 Hermann Kühn, 'Lead Lead-Tin Yellow', in: Ashok Roy, ed., *Artists' Pigments. A Handbook of their History and Characteristics*, II, Oxford 1993, p. 83–112.
- 30 Copper engraving from the series *Icones Principum Virorum* (so called *Iconographie*), copper engraving, 242 × 170 mm. See Marie Mauquoy-Hendrickx, *L'Iconographie d'Antoine van Dyck. Catalogue raisonné (Académie royale de Belgique, Classe des Beaux-Arts, Mémoires, IX)*, Brussels 1956, I, p. 136–137, Nr. 50.

Picture Credits

Fig. 1: © Staatliche Akademie der Bildenden Künste Stuttgart.

Fig. 2: https://collection.nmwa.go.jp/image_files/ll/2330-LL.jpg

Fig. 3: <https://spanishbaroqueart.tumblr.com/post/164645079879/anthony-van-dyck-portrait-of-diego-felipe-de>

Author's Information:

Nils Büttner: Staatliche Akademie der Bildenden Künste, Am Weißenhof 1, D-70191 Stuttgart, Germany

Alita De Feudis, and Carina Popovici: Art Recognition AG, Soodmattenstrasse 4, CH-80134 Adliswil, Switzerland

Dieser Beitrag ist auch unter folgender Internetadresse abrufbar:
<https://www.kunstgeschichte-ejournal.net/622/>