

Michelangelo Merisi da Caravaggio

Beneath the Surface



Stephen Smith

There is a condition that afflicts many admirers of beautiful paintings called the Caravaggio disease. The dramatic and sexually charged subject matter of the Baroque master's artwork combined with the sensational events of his life make for a historical figure of epic stature. But beyond the appeal of Caravaggio as a personality and the thematically engrossing nature of his art, the virtuosity displayed in the execution of his paintings has an allure of its own. How did Caravaggio achieve the inner glow and vitality that characterize his technique? Speculation abounds and numerous artists have claimed to have discovered the secrets behind the master's artistry, though their methods are often dubious. The most popular instruction guides and conventional wisdom concerning Caravaggio's technique appear to be nothing more than conjecture and speculation. Today, through modern scanning technologies and forensic methods, it is possible to look beneath the surface of Caravaggio's paintings and determine how he actually achieved his remarkable results.

Caravaggio, though extremely popular during his lifetime, quickly fell out of favor after his death in 1609 or 1610. Criticism of the artist's "realism" started early. Giovanni Pietro Bellori writing in his *Lives of the Modern Painters, Sculptors and Architects* several decades later described Caravaggio's paintings as *vulgari*.¹ Bellori went even further to say that "the moment the model is taken away from him, his hand and mind become empty."² Historical and classical painting were coming into vogue and "the Letterati with strong antiquarian interests...found they could provide an impressive justification of their taste for a particular style, with Caravaggio as a sort of convenient

¹ Denis Mahon, *Studies in Seicento Art and History* (Westport, Connecticut: Greenwood Press, 1971), 34.

² John Varriano, *Caravaggio: The Art of Realism* (Union Park, Pennsylvania: The Pennsylvania State University Press, 2006) 129.

negative background to set off the supposed virtue of their favorites.”³ It was actually Caravaggio’s success that made him a convenient target for the champions of a conflicting aesthetic. Technically, the naturalistic style that Caravaggio used was fresh and vibrant and in direct opposition to that used by most classically oriented painters, who would typically rely on extensive preparatory sketches and detailed underpaintings.

It wasn’t until Roberto Longhi’s (Figure 1) exhibition of the artist’s work in Milan in 1951 called *Mostra del Caravaggio e dei Caravaggeschi* that Caravaggio began to regain his reputation as a major artistic figure.⁴ Since that time interest in Caravaggio has continued to increase and more works have been attributed to his hand. The artist’s reemergence as fashionable during the heyday of high modernism might seem curious. It has been



Figure 1 Roberto Longhi

suggested that there is a familiarity between Caravaggio’s paintings of supposedly erotic youths and “raunchy American adolescents of the late twentieth century.”⁵ The homoerotic aspects of some of the artist’s work might find favor in certain segments of contemporary society but Caravaggio’s appeal is more universal. One might speculate that the reestablishment of the artist’s reputation has been a result of the average art patron finally being given permission by the intelligentsia to enjoy it again. This seems to be the case with other artists such as Bouguereau after three-quarters of a century of

³ Mahone, *op. cit.*, 182-3.

⁴ Silvia Cassani and Maria Sapio, ed. *Caravaggio: The Final Years* (London: The National Gallery, 2005), 8.

⁵ Leo Bersani and Ulysse Dutoit *Caravaggio’s Secrets* (Cambridge Massachusetts and London: MIT Press, 1998), 10.



Figure 2

derision. Regardless of the psychology of art patrons Caravaggio is, for the time being, ranked among the upper echelons of “great masters.”

Caravaggio’s modus operandi would begin with a choice of subject, which might be original or commissioned. When he painted *The Conversion of the Magdalene* (Figure 2) (c.1598), currently in the Detroit Institute of Art, the artist would have been in his mid-twenties and in the midst of a particularly prolific period. The choice of a female subject would have coincided with the execution of several others including his *St. Catherine* (c.1598), *Portrait of a Courtesan* (c.1598) and *Judith and Holofernes* (c.1599). At the time Caravaggio would have been living in the house of Cardinal Francesco Mario del Monte. Soon he would cement his fame with the commission to decorate the Contarelli Chapel and be able to afford to leave the Cardinal’s court.

The *Magdalene* was not commissioned by Del Monte but rather a rival collector Ottavio Costa.⁶ Costa was a wealthy Genoese nobleman and banker to the Papal Court. He was an active art collector and is known to have commissioned or purchased at least four of Caravaggio's paintings. How much, if any, influence Costa had over the choice of subject matter is unknown. The theme is original to this painting⁷ but became common later in the 17th century. One is tempted to give Caravaggio sole credit for its conception, as remarkable innovation is common throughout all of his work. The subject is drawn from the gospel of Luke 10: 40-42 which reads "But Martha was worrying about all the things she had to do, so she came to him and asked, 'Lord, you do care that my sister has left me to do the work all by myself, don't you? Then tell her to help me.' The Lord answered her, 'Martha, Martha! You worry and fuss about a lot of things. But there's only one thing you need. Mary has chosen what is better, and it is not to be taken away from her.'" The artist depicts the moment of confrontation as Mary Magdalene chooses to join Christ and turn away from worldly concerns.

The symbolism in Caravaggio's interpretation becomes paramount with the understanding that the Christian god is supposed to be present in the scene. Magdalene holds a delicate flower directly before her heart and caresses a mirror with a dramatic reflection of light pouring in from above. A comb with a broken tooth and a makeup dish, or *sponzarol*, are on the table in the foreground. The perspective of the comb appears to be slightly off but is probably painted to reflect the angle of the square of bright highlight in the mirror. Martha's head is covered in shadow while the dramatic chiaroscuro pulls her hands out of the darkness. Magdalene's bright skin strongly contrasted with the

⁶ Frederick J. Cummings, *The Conversion of the Magdalene* (Detroit, Michigan: The Detroit Institute of Arts, 1973), 6.

⁷ *ibid.*, 10.

tenebrous background is the hallmark of the Baroque style Caravaggio helped to invent. No drawings by Caravaggio have survived and it is widely believed he did no preliminary sketches before beginning a painting. He worked directly from live models, which he posed himself. From the finished compositions one can only speculate as to the artist's use of traditional pictorial arrangements such as the golden section or rule of threes. If the master's compositions appear to be designed around some geometrical formula this might only be inference.

Caravaggio would often change his compositions mid-painting. One clear example is the billowing of the fabric in *The Musicians* (Figure 3) now at the Metropolitan Museum of Art.⁸ X-rays of the painting have revealed a fairly finished



Figure 3

sleeve of the lute player. The original was probably painted from a live model and the alteration made for compositional reasons or dramatic effect. The fabric could never float so delicately in defiance of gravity as it does in the finished painting.

⁸ Keith Christiansen, "Caravaggio and L'esempio davanti del naturale," *Art Bulletin* vol. 68 (1986): 424.

Though criticized for his supposedly “vulgar” desire to only paint the natural world as it presents itself, the only quotes we have from the master tell a different story.⁹ These come from the recorded testimony of his libel trial against Giovanni Baglione in 1603. Caravaggio was accused of being one of a small group of conspirators who had been circulating satirical poems mocking Baglione’s work and character. Baglione was a popular painter at the time and rival of Caravaggio. In the court records Caravaggio is reported to have said that the highest goal of a painter was *valent’uomo*. Asked to explain himself the artist clarified the term to mean someone who not only could reproduce the natural world, but was *also* master of his craft. Furthermore, Caravaggio named four contemporary painters who demonstrated this quality in their work Annibale Carracci, Giuseppe Cesari, Federico Zuccari and Cristoforo Roncalli know as Pomarancio. Clearly from his examples and explanation of the term *valent’uomo*, Caravaggio was interested in more than the simple replication of nature that his later detractors would accuse him of.

Speculation abounds as to Caravaggio’s use of some sort of projection to transfer his models’ images to his substrate. The Italian scholar Roberta Lapucci of the Studio Art Centers International in Florence has recently suggested that Caravaggio treated his canvases with a photoluminescent powder derived from crushed fireflies that could hold a scene while the artist drew in the composition. Cited as evidence is that the technology existed at the time and many of Caravaggio’s figures appear to be left-handed. David Hockney popularized similar ideas in his book *Secret Knowledge* and television program of the same name. These notions are too widespread to be dismissed without rebuttal. Modern scanning techniques and microscopic inspections would certainly have turned up

⁹ *ibid.*, 421.

anything as unusual as a photoluminescent powder in Caravaggio's paintings. Furthermore the artist's early self portraits would have seem impossible to execute using any kind of projection technique. If Caravaggio were capable of painting without this sort of gimmickry why would he bother with such a cumbersome and expensive extra step? Why would this not be common knowledge and noted at the time? Hockney's book appears to be driven by his opinion that masters like Caravaggio were incapable of painting with such virtuosity without some sort of mechanical aid. This is embarrassingly exposed when Hockney tries these techniques himself and is still incapable of drawing a



Figure 4 David Hockney's tracings v. Ingres' Drawings.

convincing likeness. (Figure 4) There is no reason to imagine that painters of the past were unable to create their masterpieces without the aid of optics or trickery. There are

numerous people today who can paint with comparable skill without the tutelage and cultural support that would have been available to Caravaggio.

A scathing review of Hockney's book by David Bomford of the National Gallery of London was published in *Burlington Magazine* in 2002. Bomford writes that "There is, of course, no evidence...no documentary record...only the author's hunch."¹⁰ He goes on to speculate that Hockney's motivation is to cut the great draftsmen of the past down to size, to make the extraordinary ordinary. Hockney seems unable to believe that the artists of the past possessed the technical ability to execute their work. He also seems to vastly underestimate the skill of artists, like Vermeer, that are known to have used optical aids. Hockney claims that the musical instruments in Caravaggio's *Lute Player* and the wings of his *Amor* are impossible to paint without the aid of optics. "No single historical source has ever mentioned this method...the freely brushed underdrawings that have been observed in (Caravaggio's) paintings tell us exactly what he did."¹¹

Who exactly the models were for *The Conversion of the Magdalene* is debatable but visual clues are abundant. The fact that Caravaggio worked from live models was viewed by his contemporaries as the most outstanding feature of his work.¹² Apparently the practice was uncommon at the time. It is widely believed that the figure of the Magdalene is that of Fillide Melandroni (Figure 5) who is known to be the model for *Portrait of a Courtesan* from roughly the same period. The resemblance is rather weak. Roberto Longhi believed the figure of the Magdalene to be the same model used for

¹⁰ David Bromford, "David Hockney's Secret Knowledge: Rediscovering the Lost Techniques of the Old Masters," *Burlington Magazine*, vol. 144, no. 1188 (2002): 173.

¹¹ *ibid.*, 174.

¹² Keith Christiansen, "Caravaggio and L'empio davanti del naturale," *Art Bulletin*, volume 68 (1986): 422.

Caravaggio's *Saint Catherine of Alexandria*.¹³ Here the faces are very similar but rather different to *Portrait of a Courtesan*, which can be assumed to be a true likeness of Melandroni. She is also believed to have been the model for Judith in *Judith Beheading Holofernes* from the same period. The model for Martha is believed by many to be the



Figure 5 Four Possible portraits of Fillide Melandroni by Caravaggio.

Anna Bianchini and to have also posed for the *Penitent Magdalene* from 1597. Both Bianchini and Melandroni were known prostitutes.

Having chosen a subject and models Caravaggio would prepare his surface. Depending on the circumstances the artist might work on a wood panel or more commonly a linen canvas. Prepared canvas was available in the early modern era¹⁴ but usually artists would treat their own surfaces. Caravaggio's canvases were typically a medium, simple weave but occasionally he would use a twill weave canvas called *tela olona*. Also the artist is known to have used linen with interwoven lozenge patterns called *tela di Fiandra* found in table clothes of the period. Traditionally animal or rabbit-skin glue was used for sizing a canvas. This is

¹³ Frederick J. Cummings, *The Conversion of the Magdalene* (Detroit, Michigan: The Detroit Institute of Arts, 1973), 11.

¹⁴ Phoebe Dent Weil, "Technical Art History and Archeometry II: An Exploration of Caravaggio's Painting Techniques," *Revista Brasileira de Arqueometria Restauracao e Conservacao*, vol. 1, no. 3 (2007): 107

acquired by “boiling the skins or connective tissues of certain mammals or parts of some fish.”¹⁵ It might be mixed with mineral calcium carbonate to form gesso. Gesso is the Italian word for chalk or plaster and is the generic term for all canvas primers today. This is a necessary step in oil painting to protect the canvas from the acidic properties of the oil itself. It is believed that the use of rabbit-skin glue is a major cause of the eventual cracking of paintings. The glue is hygroscopic and absorbs water molecules, which later tends to dry out. This constant expanding and contracting of the gesso layer eventually fragments the painted surface. After application, the rabbit-skin glue quickly dries and tightens the canvas, which would have been fastened to stretcher bars with tacks. Examination of the Detroit *Magdalene* revealed that the canvas has been relined at least one time in the past. With age the original canvas will wear from the weight of the paint. The solution to this problem is to affix another canvas to the back of the original. This is called lining or relining. “Paintings have been lined since the seventeenth century, and almost no early canvases survive unlined.”¹⁶ A thin indentation along the edge of the original canvas of the Detroit *Magdalene* revealed that the original stretcher bars would have been a mere 5 cm. while the painting itself is 134.5 by 100 cm. or 53 by 39.25 inches. When the painting arrived in Detroit its current stretcher bars were warped and subsequently replaced. The canvas was also once again relined.

In his later work Caravaggio used a reddish brown primer that was often left unpainted in his shadow areas. Typically at the time the ground would be made with inexpensive pigments and some lead base to speed the drying time. Artists would add a

¹⁵ W. Stanley Taft, Jr. and James W. Mayer, *The Science of Paintings* (New York and Berlin: Springer-Verlag, 2000), 32.

¹⁶ Andrea Kirsh and Rustin S. Levenson, *Seeing Through Paintings* (New Haven and London: Yale University Press, 2000), 35.

second ground of light gray or ochre on which they would transfer their preliminary drawings. Though Caravaggio did no preliminary drawings he is known to have added a second ground to some of his earlier paintings. An infrared reflectogram of the *Card Sharps* has revealed a gray tone. This was not the case with the Detroit *Magdalene* where he worked directly on the dark original layer of gesso. This painting can be seen as a transitional piece where the dark primer is used and dramatic lighting is starting to enter his work.

Microscopic examination of *The Conversion of the Magdalene* revealed that the artist's pallet would have been typical for the time.¹⁷ All of the colors appeared to be from the original and despite some attempts at restoration, like the relining of the canvas; no paint additions have been discovered. The green drape over Mary's arm was painted with azurite, a deep blue mineral produced by weathering copper ore that turns dark green when mixed with oil. Azurite was also discovered in the background and mixed with red ochre to make the purple of her bodice. The rich red of the figure's sleeves are primarily painted with red ochre. Caravaggio also used yellow ochre. Ochres are pigments made from clay and reflect their natural tint. For bright yellows the artist used lead-tin white, which is a mixture of three parts lead oxide and one part tin oxide that would be heated to over 1200 degrees Fahrenheit to gain its color. The only white paint used in Europe until the nineteenth century was lead white. Lead white has been used since antiquity and is made by filling lead containers with vinegar and allowing it to corrode. The result is a toxic white powder that when mixed with oil can be employed as a relatively safe pigment. A green used by the artist is called malachite and is made from

¹⁷ Weil, *op. cit.*, 108.

crushing up a mineral of the same name and mixing it with oil for painting. This was another very old pigment that is known to have been used by the ancient Egyptians. Carbon black is made from charring wood or bone and was inexpensive and common in the early modern period. For bright reds Caravaggio would use vermilion derived from cinnabar, a mineral composed of mercury and sulfur. Another red used by the artist is madder lake. This pigment is prepared from the roots of the madder plant, which are dried, crushed and boiled in a weak acid to release the color. These pigments would have to have been mixed daily. Infrared scanning is useful to determine pigment use but for more accurate results minute samples must be extracted from the paintings and examined microscopically. The realism Caravaggio was able to achieve is partly a result of his limited pallet. The development of bright and artificial colors has only proved to give paintings an unnatural quality.

As a medium Caravaggio is believed to have used walnut oil.¹⁸ He probably heated it with litharge, a type of lead oxide, to quicken the drying time. This combination is referred to as “black oil.” Still available in art supply stores, walnut oil is underappreciated today. Its smooth and creamy consistency is ideal for glazing and does not yellow like the more common linseed oil. Opinions of walnut oil’s quality have varied throughout the years. It was used interchangeably with linseed oil until nineteenth



Figure 6 Incision marks on Uffizi *Sacrifice of Isaac*.

¹⁸ Weil, *op. cit.*, 108.

century chemists declared it to be inferior. Today that opinion has been reversed and walnut oil is considered to be the superior of the two in that it has a more reflective quality and can intensify the luminosity of pigments.

Working directly from life Caravaggio would set up his models and then begin by scratching out his compositions into the colored ground. (Figure 6) This is recognized as part of the artist's signature style. X-radiography has revealed the scratch marks that have been identified with original Caravaggio paintings. The artist is believed to have used a stylus or possibly the back of a brush to layout his compositions. These marks have been found in several authentic Caravaggio paintings. The signature marks have been described as a "very fine, slightly nervous, long line."¹⁹ The scoring is done directly into



Figure 7

the wet layer of colored pigment above the gesso. Such scratch marks delineating the figures in the Detroit *Magdalene* (Figure 7) were used as further evidence of the painting's authenticity. The depth and width of the incisions vary due to the thickness of the ground and level of dryness. Even with the use of modern technology the scratch marks are often impossible to detect because they have been painted over. One way of discovering subtle scratch marks is to use racking light, where a strong light source is

shined almost parallel to the canvas. Incisions are easier to find in the thinner, darker

¹⁹ Cummings, *op. cit.*, 12.

areas. In the London *Supper at Emmaus* virtually no scratch marks have been found. Keith Christiansen, Curator of Italian Painting at the Metropolitan Museum has written that “it is inconceivable that a highly complex composition like the *Supper at Emmaus*, with its emphatically foreshortened arm and carefully worked out perspective structure, could have been achieved without the aid of incisions or preliminary drawings.”²⁰ Scholars agree that the scratch marks were drawn in freehand without the aid of a cartoon.

Incisions were discovered in *The Taking of Christ* and used as confirmation of its authenticity. This painting was thought to have disappeared until it was recognized and suspected to be an original Caravaggio in the early 1990s by an art student who saw it hanging in a Jesuit residence in Dublin, Ireland. The story of the paintings rediscovery was the subject of a popular book by Jonathan Harr called *The Lost Painting*. Other clues to the authenticity of *The Taking of Christ* are the similarity of the models with known Caravaggio paintings. The terrified apostle with his head next to Christ appears to be the same model as the tax collector in the foreground of *The Calling of Saint Matthew*. The heavily bearded roman guard is believed to be one of the artist’s models from at least two other Caravaggio paintings.²¹

In addition to the familiarity of the models, clues that the Detroit *Magdalene* is an original include the similarity in the clothing as seen in the embroidery of the gown worn by the main figure and that of Caravaggio’s *St. Catherine* from the same period and the lost *Portrait of a Young Woman* that was in the Berlin Museum. The pattern on the edge of model’s outfit formed by vines and leaves also appears on the dress of Caravaggio’s

²⁰ Christiansen, *op. cit.*, 425.

²¹ Sergio Benedetti, “Caravaggio’s Taking of Christ, a Masterpiece Rediscovered,” *Burlington Magazine* CXXXV (1993): 738.

Penitent Magdalene. The artist rarely signed his work and identifying originals can be a difficult task. There is still debate over the authenticity of the Detroit *Magdalene*. When it was purchased by the museum it was in a nineteenth century frame with a label attributing the painting to Michel Angelo Amerighi with the dates 1569-1609.

The *Conversion of the Magdalene* was believed to have existed before being discovered because of several known copies. Scholars believed these copies were based on a design that Caravaggio originated.²² Ottavio Costa's will from 1606 mentions a painting described as "Martha and Magdalen." The artist of the painting is not named in the will and Costa would not actually die for another 33 years. A lining on the back of the painting when it was acquired by the Detroit Museum was inscribed with the names Niccolo Panzani, Emilia Panzani and Anna Panzani. It is believed these are members of the family of Gregorio Panzani, a papal agent for Charles I of England from 1634 to 1636. Gregorio Panzani was responsible for arranging a gift of paintings from Urban VIII to the English court. *The Conversion of the Magdalene* remained in Italy until it was legally exported in 1897. There are several wax imprints from the customs agents in Milan on the back of the mislabeled frame. Indalecio Gomez, Minister to the Imperial Court at Berlin, purchased the painting in Paris between 1904 and 1909. Next Gomez took it to Argentine where it was hung at his family estate in the province of Salta in the northern part of the country. The *Magdalene* remained in this location until 1965 when it was moved to Buenos Aires. In 1967 Martin S. de Alzaga saw it and believed it to be an original by Caravaggio. Alzaga contacted David Carritt of Christie's auction house in London and arranged for him to travel to Buenos Aires to examine the painting. Alzaga believe this to be the original of a copy he was familiar with at Christ Church, Oxford. At

²² Cummings, *op. cit.*, 12.

the time the varnish of the painting had darkened as to make it impossible to judge its value. It was put up for auction at Christie's auction house before cleaning but failed to reach its reserve price. As interest in the painting increased it was examined by a number of scholars including a team from the Detroit Institute of Arts. In 1973 the painting was purchased by the Institute where it was cleaned, restored and examined through modern scientific methods.

The Conversion of the Magdalene has gone through three cleanings since it has been in Detroit. Some scholars believe this has been to the painting's detriment. Keith Christianson describes the painting as a "ruin" and goes on to say:

(S)uccessive cleanings and relining...have left the surface skinned and flattened. The background has been reduced to patches of what was a preparatory division of light and dark, and even this has been broken through to reveal the brown ground.... In the shadowed area of the ointment jar, for example, the ground has been exposed, destroying any sense of form. Martha's face, viewed in shadow, has been so greatly skinned that the *abozzo* is easily visible to the naked eye. Where the mirror frame had been redrawn with an eye to correcting the foreshortening angle by pulling the background color over part of its upper contour—a common practice for Caravaggio—this background color has been removed, leaving only scattered deposits of black and the initial, ill-drawn mirror frame fully exposed. Likewise, the red sleeve and green mantle of the Magdalene have been cleaned to the point that they have no real relationship to adjacent areas of the picture. The only portions of the picture that give any indication of its original appearance and quality are the citrus blossom held by the Magdalene and the embroidered areas of her blouse and bodice.²³

Another of Caravaggio's signature features is the use of egg tempera on top of the oil paint. This is done on the flesh tones of the figures to give the appearance of real skin. The reflective qualities of the oil paint are muted by the more opaque tempera in the highlights. Before Caravaggio it was not uncommon for artists to glaze in layers of oil and egg tempera one after the other. Caravaggio did not use the traditional glazing

²³ Christiansen, *op cit.*, 436.

technique of building up thin layers of oil with limited pigment to create his colors. His method is much more direct. The shapes of the figures were sketched out in the mid-tone colors and modeled with highlights. The dark ground was often left bare in the shadows. He is known to have blocked out the dark areas early in the painting process, which would have allowed him to have a good feel of the composition throughout the painting process. Whites and other light colors would be thick with paint and the darks thin and sometimes glazed with much more walnut oil. The dramatic contrast between dark and light adds to the three dimensional quality.

A good example of Caravaggio's method of painting has been exposed by an infrared reflectogram of the head of Holofernes (Figure 8) from the *Judith and Holofernes* in the Palazzo

Barberini. The scan clearly reveals a preliminary sketch or *abbozzo* of a face below the finished work. The reworked area itself is called the *pentimenti*. Here Caravaggio's



painting technique can be **Figure 8** Pentimenti from Judith and Holofernes

seen in progress. The artist sketched out the figures features roughly with pigment before coming back in later to add details and refine his modeling. In the unfinished face below the final painting the eyes, nose and mouth are only indicated with a sparse few

brushstrokes. Artists' brushes have changed little over the years with the exception of the metal ferrule developed in the nineteenth century.²⁴ Wooden handles with animal hair fibers to mop up the paint have remained the standard tool of artists since antiquity.



Figure 9

Another clear example of Caravaggio's *abozzo* is revealed in an infrared reflectogram of the *Card Sharps* (Figure 9) in Fort Worth, Texas. The scan exposes a reworking of the right hand of the player pulling cards from his back. Also the *abozzo* of the stripes in the fabric are shown to be roughly

sketched in and give a clear illustration to the painter's method.²⁵

In the *Lute Player* from 1596 in the Metropolitan Museum, Caravaggio achieved the light, semitransparent feel of the figure's shirt by avoiding the high contrast that is represented in much of his work. The shadows of the fabric are painted with a cool gray. There are three versions of this painting claiming authenticity. One is in the Hermitage Museum in Saint Petersburg and another was auctioned at Sotheby's in 2001 and is now in Gloucestershire, England. X-radiography has shown that the canvas for the Metropolitan *Lute Player* was reused and once depicted two figures (Figure 10) who

²⁴ Kirsh, op. cit., 126.

²⁵ Keith Christiansen, "Technical Report on The Cardsharps," *Burlington Magazine*, CXXX (1988): 23.



Figure 10

where scraped down before a second ground was applied. Other paintings where Caravaggio is known, through modern scanning techniques, to have reused his canvases include the *Fortune Teller*, painted over a vertical version of the Immaculate Conception, *Basket of Fruit*, painted over a decorative grotesque, *The Martyrdom of St. Matthew* and *David with the Head of Goliath*, which is painted over a

the figures of Venus, Mars and Cupid.

Caravaggio is known to have used the handle of his brush to scrape away at the paint to create texture.²⁶ In the Uffizi *Bacchus* this method is used on the pillow the figure is reclining on in order to create the illusion of the weave of the fabric. This technique is also used in to sharpen the edge of on the top of Judith's Bodice in *Judith and Holofernes*. This same method is used several times throughout *Saint Catherine of Alexandria*. These marks from Caravaggio's brush handle can be found in the figure's dress and the pillow she is kneeling on. The same technique was used in the embroidery of the Magdalene's dress in the Detroit Magdalene.

²⁶ Christianson, op. cit., *Art Bulletin*, 427.

Though he did not originate the method Caravaggio made chiaroscuro a more central feature in his paintings. Chiaroscuro means light-dark in Italian but is more complicated than simple contrast. By closely studying shadows Renaissance artists realized that the darkest part appeared to be where the shadow comes in contact with the highlight. This is a psychological and optical illusion but when exaggerated in painting makes for a much more convincing image. Caravaggio's dramatic exploitation of chiaroscuro as a major and fundamental element in his paintings is called tenebrism. Tenebrism gets its name from the Italian *tenebroso* or murky. Isolated by direct light from a single source the figures seem to ascend out of the darkness toward the viewer. Caravaggio is often given credit for the development of tenebrism, which is usually associated with later artists like Tintoretto, El Greco and Rembrandt.

Because Caravaggio used walnut oil his paintings might take months to completely dry. Each layer of oil should be completely dry before it is covered. The painting might feel dry to the touch much earlier, but traditionally varnish would not be applied until there was no longer a fear of cracking. Examination of Caravaggio's *Medusa* has revealed his varnish to contain a mixture of drying oil, a type of gum resin called mastic, turpentine and beeswax.²⁷

Given the vast amount of evidence as to Caravaggio's painting methodology revealed through modern scanning and forensic techniques the disconnect with those who teach his painting style is alarming. Joseph Sheppard's very popular book *How to Paint Like the Old Masters* recently released its 25th anniversary edition. Though Sheppard is a talented painter his insights into Caravaggio's technique, in light of the available

²⁷ Monica Favaro and Alessandro Vigato, "La Medusa by Caravaggio: characterization of the painting technique and evaluation of the state of conservation," *Journal of Cultural Heritage* vol. 6, issue 4 (2005): 295-305.

knowledge, demonstrates an almost willful ignorance. (Figure 11) From beginning to end the demonstration is misguided. First Sheppard ignores all evidence and suggests Caravaggio must have begun with a very detailed preliminary drawing. Sheppard seems unaware that the artist used walnut oil and suggests a concoction of his own involving linseed oil and beeswax. His pallet is completely wrong and he misses the very important egg tempera layer that has long been well established as a crucial element used to achieve Caravaggio's remarkable skin tones.

Aspiring painters will continue be misled by Sheppard's popular instruction manual and the general public will probably never realize that David Hockney's theories

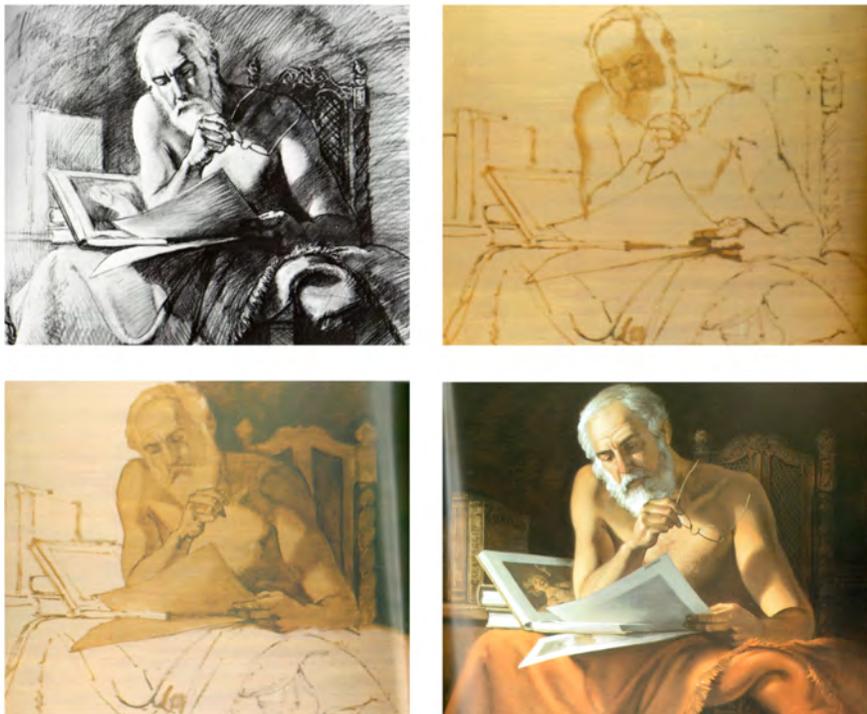


Figure 11 Joseph Sheppard's imaginative take on Caravaggio's technique.

have been rejected by all serious scholars. But Roberta Lapucci is a reputable art restorer and respected expert on Caravaggio's work. An article distributed to news organizations

internationally by the Agence France-Presse (AFP) on March 11, 2009 popularized Lapucci's theory. Forensic studies will be made to determine if the artist actually used the photographic techniques Lapucci suggests and the results will be published later in 2009. Though considered highly unlikely, if it does turn out that her theories are correct much of art history, and history in general, will have to be rewritten.