

CARAVAGGIO AND A NEUROARTHISTORY OF ENGAGEMENT

Kajsa Berg

A thesis submitted in fulfilment of the requirements
For the degree of Doctor of Philosophy

University of East Anglia

September 2009

© This copy of the thesis has been supplied on the condition that anyone who consults it is understood to recognise that its copyright rests with the author and that no quotation from the thesis, nor any information derived therefrom, may be published without the author's prior written consent.

ABSTRACT

John Onians, David Freedberg and Norman Bryson have all suggested that neuroscience may be particularly useful in examining emotional responses to art. This thesis presents a neuroarthistorical approach to viewer engagement in order to examine Caravaggio's paintings and the responses of early-seventeenth-century viewers in Rome. Data concerning mirror neurons suggests that people engaged empathetically with Caravaggio's paintings because of his innovative use of movement. While spiritual exercises have been connected to Caravaggio's interpretation of subject matter, knowledge about neural plasticity (how the brain changes as a result of experience and training), indicates that people who continually practiced these exercises would be more susceptible to emotionally engaging imagery. The thesis develops Baxandall's concept of the 'period eye' in order to demonstrate that neuroscience is useful in context specific art-historical queries. Applying data concerning the 'contextual brain' facilitates the examination of both the cognitive skills and the emotional factors involved in viewer engagement.

The skilful rendering of gestures and expressions was a part of the artist's repertoire and Artemisia Gentileschi's adaptation of the violent action emphasised in Caravaggio's *Judith Beheading Holofernes* testifies to her engagement with his painting. *Victorious Cupid, St Matthew and the Angel* and *Doubting Thomas* in Vincenzo Giustiniani's collection show an emphasis on touch, which was crucial to the lifelikeness of the imagery, the understanding of the subject matter and the engagement of the skilled patron and his acquaintances. Empathetic engagement with Caravaggio's religious commissions was expected. Paintings in Roman churches were made to stir the emotions as a means to instigate piety in the viewers. Training in spiritual exercises would have increased the receptivity to emotional involvement. Now, neuroscience can facilitate systematic studies of emotional and empathetic engagement. An approach based on the 'contextual brain' provides the tools to examine a range of context specific responses to art.

CONTENTS

ABSTRACT	2
CONTENTS.....	3
LIST OF ILLUSTRATIONS.....	7
ACKNOWLEDGEMENTS.....	16
PART 1: INTRODUCTION	17
1.1: ARGUMENT	17
1.2: VIEWER ENGAGEMENT, CARAVAGGIO AND NEUROARTHISTORY: A LITERATURE REVIEW	22
1.2.1: Defining engagement.....	22
1.2.2: Viewer engagement before Caravaggio.....	22
1.2.3: From Lomazzo to Le Brun	25
1.2.4: The nineteenth century	28
1.2.5: The rediscovery of Caravaggio.....	29
1.2.6: Perception and viewer engagement in the twentieth century	30
1.2.7: Recent developments	34
1.3: APPROACH	42
1.4: STRUCTURE	46
PART 2: FRAMEWORKS	49
2.1: INTRODUCTION.....	49
2.2: THE BRAIN	51
2.2.1: The basic structure of the human brain.....	51
2.2.2: Neural plasticity.....	51
2.2.3: The neurobiology of vision.....	54
2.2.4: The dorsal stream and seeing movement.....	57
2.2.5: Mirror neurons	58
2.2.6: Facial expressions	60
2.2.7: Pain processing	62
2.2.8: Neural plasticity of mirror neurons.....	65
2.3: THE CONTEXT: ROME AROUND 1600	68
2.3.1: Milan.....	68
2.3.2: Population	69

2.3.3: The physical renewal of the city	71
2.3.4: The papacy and its cardinals	72
2.3.5: The Spanish	74
2.3.6: Patronage	75
2.3.7: The Anno Santo in 1600	77
2.4: ART THEORY IN ROME, MILAN AND BOLOGNA	81
2.4.1: The Roman art world and art theory	81
2.4.2: Lomazzo in Milan	82
2.4.3: The Carracci and Paleotti in Bologna	85
2.5: CONCLUSION	90
PART 3: VIEWER ENGAGEMENT: THE ARTIST	92
3.1: INTRODUCTION	92
3.1.1: The artist as a specific case	92
3.1.2: Intention	92
3.1.3: Influence	94
3.1.4: The mind and the brain	95
3.2: A NEUROARTHISTORICAL APPROACH TO MOVEMENT AND EMPATHY	96
3.2.1: Movement	96
3.2.2: Movement in painting	98
3.2.3: Empathy	100
3.2.4: Empathetic connections: the artist and the image	101
3.2.5: Freedberg, mirror neurons and aesthetic response	104
3.3: CARAVAGGIO AND ARTEMISIA GENTILESCHI	107
3.3.1: Caravaggio's Life	107
3.3.2: Caravaggio's biographers and his character	110
3.3.3: Caravaggio and realism	114
3.3.4: Orazio and Artemisia Gentileschi	118
3.3.5: Artemisia Gentileschi: sources and character	119
3.3.6: The Caravaggisti	123
3.4: VIEWER ENGAGEMENT; THE ARTIST – CASE STUDY 1: <i>JUDITH BEHEADING HOLOFERNES</i>	127
3.4.1: The narrative	127
3.4.2: Traditions of depicting the Judith narrative	127

3.4.3: Three versions of <i>Judith Beheading Holofernes</i>	130
3.5: CONCLUSION.....	135
PART 4: VIEWER ENGAGEMENT: THE PATRON AND COLLECTOR	137
4.1: INTRODUCTION.....	137
4.1.1: The collector as a specific case.....	137
4.2: A NEUROARTHISTORICAL APPROACH TO COLLECTING.....	140
4.2.1: Collecting as a human behaviour.....	140
4.2.2: Movement and touch in the works of Caravaggio, Carracci and Bernini ...	142
4.2.3: Baroque categorisation	146
4.2.4: Surprise in the works of Caravaggio, Carracci and Bernini	149
4.2.5: Reality and illusion	152
4.3: THE COLLECTOR.....	158
4.3.1: The Giustiniani: their social arena and their interests	158
4.3.2: The family collection.....	160
4.3.3: Positive comments on Caravaggio's work	165
4.3.4: Scipione Borghese, del Monte and Mattei.....	168
4.3.5: Competing in art and display	172
4.4: VIEWER ENGAGEMENT; THE PATRON AND COLLECTOR – CASE STUDY 2: VICTORIOUS CUPID, ST MATTHEW AND THE ANGEL AND DOUBTING THOMAS	174
4.4.1: <i>Victorious Cupid</i>	174
4.4.2: <i>St Matthew and the Angel</i>	181
4.4.3: <i>Doubting Thomas</i>	186
4.5: CONCLUSION.....	191
PART 5: VIEWER ENGAGEMENT: THE PEOPLE IN ROME ...	193
5.1: INTRODUCTION.....	193
5.1.1: Caravaggio and his audience in Rome.....	193
5.2: NEUROSCIENCE AND THE HISTORICAL CONTEXT	196
5.2.1: Nature, culture and art	196
5.2.2: Neural plasticity, visual preferences and viewer engagement.....	200
5.2.3: The Spiritual Exercises and neural plasticity.....	202
5.3: ROME AS A VIEWING CONTEXT	207
5.3.1: Uniting Rome as the Christian capital of the world	207

5.3.2: The importance of communication.....	208
5.3.3: Commissions and audiences in Rome	211
5.3.4: The church as a context	213
5.3.5: Public devotion.....	216
5.4: VIEWER ENGAGEMENT; THE PEOPLE IN ROME – CASE STUDY 3: THE COMMISSIONS IN S. MARIA DEL POPOLO AND THE CHIESA NUOVA	219
5.4.1: Caravaggio's public commissions	219
5.4.2: <i>The Conversion of St Paul</i> and <i>The Crucifixion of St Peter</i>	221
5.4.3: <i>The Entombment</i>	227
5.5: CONCLUSION.....	232
PART 6: CONCLUSION	234
BIBLIOGRAPHY	241
APPENDIX 1	261
ILLUSTRATIONS.....	262

LIST OF ILLUSTRATIONS

- 1. *The Calling of St Matthew***, Caravaggio, 1599-1600. Oil on canvas, 322 x 340 cm.
S. Luigi dei Francesi, Rome. Wilson-Smith, *Caravaggio*, 65.
- 2. *St Matthew and the Angel***, Caravaggio, 1602. Oil on canvas, 296.5 x 189 cm.
S. Luigi dei Francesi, Rome. Wilson-Smith, *Caravaggio*, 79
- 3. *The Martyrdom of St Matthew***, Caravaggio, 1599-1600. Oil on canvas, 323 x 343 cm.
S. Luigi dei Francesi, Rome. Wilson-Smith, *Caravaggio*, 63.
- 4. *Boy Bitten by a Lizard***, Caravaggio, c. 1593-4. Oil on canvas, 65.8 x 39.5 cm.
National Gallery, London. Wilson-Smith, *Caravaggio*, 35.
- 5. *Madonna di Loreto***, Caravaggio, c. 1603-6. Oil on canvas, 260 x 150 cm.
S. Agostino, Rome. Wilson-Smith, *Caravaggio*, 93.
- 6. *Doubting Thomas***, Caravaggio, 1602-3. Oil on canvas, 107 x 146 cm.
Sanssouci, Potsdam. Wilson-Smith, *Caravaggio*, 85.
- 7. The Müller-Lyer illusion** with representations of it is seen in buildings.
Gregory, *Eye and Brain*, 138 and 148-9.
- 8. *Que Hay Que Hacer Mas?***, (What More Is There to Do?), plate 33 from *Los Desastres de la Guerra* (Disasters of War), Goya, 1810-14.
Etching. Biblioteque Nationale, Paris.
Freedberg and Gallese, 'Motion, Emotion and Empathy', 198.
- 9. *Judith Beheading Holofernes***, Caravaggio, c. 1599. Oil on canvas, 144 x 195 cm.
Palazzo Barberini, Rome. Wilson-Smith, *Caravaggio*, 61.
- 10. *Judith Beheading Holofernes***, Artemisia Gentileschi, 1612-13.
Oil on canvas, 158.8 x 125.5 cm. Museo di Capodimonte, Naples.
Christiansen and Mann, *Orazio and Artemisia Gentileschi*, 309.
- 11. *Judith Beheading Holofernes***, Artemisia Gentileschi, c. 1620.
Oil on canvas, 100 x 162.5 cm. Galleria degli Uffizi, Florence.
Christiansen and Mann, *Orazio and Artemisia Gentileschi*, 349.
- 12. *Victorious Cupid***, Caravaggio, c. 1601. Oil on canvas, 154 x 110 cm.
Staatliche Museen, Berlin. Wilson-Smith, *Caravaggio*, 75.
- 13. *St Matthew and the Angel***, Caravaggio, c. 1602. Oil on canvas, 223 x 183 cm.
Formerly Kaiser Friedrich Museum, Berlin (destroyed).
Puglisi, *Caravaggio*, 178.
- 14. *The Crucifixion of St Peter***, Caravaggio, 1600-1. Oil on canvas, 230 x 175 cm.
S. Maria del Popolo, Rome. Wilson-Smith, *Caravaggio*, 69.

15. *The Conversion of St Paul*, Caravaggio, 1600-1. Oil on canvas, 230 x 175 cm.
S. Maria del Popolo, Rome. Wilson-Smith, *Caravaggio*, 67.

16. *The Entombment*, Caravaggio, c. 1602-4. Oil on canvas, 300 x 203 cm.
Pinacoteca Vaticana, Rome. Wilson-Smith, *Caravaggio*, 87.

17. The nervous systems of a cat, rat, monkey and human.
Kolb and Wishaw, *Brain and Behaviour*, 38.

18. Views of the human brain. Kolb and Wishaw, *Brain and Behaviour*, 42.

19. The limbic system. Kolb and Wishaw, *Brain and Behaviour*, 418.

20. Neural plasticity of a brain from newborn to 24 months.
Kolb and Wishaw, *Brain and Behaviour*, 249.

21. Neuron. Kolb and Wishaw, *Brain and Behaviour*, 81.

22. The visual system. Purves et al., *Neuroscience*, 260.

23. The eye. Kolb and Wishaw, *Brain and Behaviour*, 287.

24. The visual field. Kandel, Schwartz and Jessell, *Principles of Neural Science*, 524.

25. Area V1. Kolb and Wishaw, *Brain and Behaviour*, 293.

26. Layers of visual cortex. Kolb and Wishaw, *Brain and Behaviour*, 304.

27. Neurons that respond to different line orientations.
Kolb and Wishaw, *Brain and Behaviour*, 304.

28. The dorsal and ventral streams. Kolb and Wishaw, *Brain and Behaviour*, 290.

29. Areas MT and MST. Bear et al., *Neuroscience*, 333-4.

30. The somatosensory cortex. Kolb and Wishaw, *Brain and Behaviour*, 383.

31. The motor cortex. Kolb and Wishaw, *Brain and Behaviour*, 366.

32. *The Musicians*, Caravaggio, c. 1595. Oil on canvas, 92 x 118.5 cm.
Metropolitan Museum of Art, New York. Wilson-Smith, *Caravaggio*, 43.

33. *David with the Head of Goliath*, Caravaggio, c. 1610.
Oil on canvas, 125 x 100 cm. Galleria Borghese, Rome.
Wilson-Smith, *Caravaggio*, 127.

34. The mirror neuron system in monkeys and humans.
Freedberg and Gallese, 'Motion, Emotion and Empathy', 200.

35. Monkey see, monkey do.
<<http://student.biology.arizona.edu/honors2007/group11/11mirror.html>>.

36. Broca's area.
<<http://www.britannica.com/EBchecked/topic-art/77269/100577/Functional-areas-of-the-human-brain>>.

37. Some of the photographs used in Paul Ekman's studies, demonstrating anger, fear, surprise, joy, disgust and distress. Evans, *Emotion*, 5.

38. Sample pictures of hands and feet in painful (Pain) and neutral (No-Pain) conditions. Jackson, Meltzoff and Decety, 'the Pain of Others', 773.

39. *The Fortune-Teller*, Caravaggio, c. 1598-9. Oil on canvas, 99 x 131 cm. Musée du Louvre, Paris. Wilson-Smith, *Caravaggio*, 55.

40. Scenes of martyrdom from the S. Stefano cycle, Niccoló Circignani, 1582. Fresco. S. Stefano Rotondo, Rome. Photos taken by Dr Matthew Sillence.

41. *Self-Portrait*, Giovanni Paolo Lomazzo, 1568. Oil on canvas, 55 x 43 cm. Brera, Milan. <<http://commons.wikimedia.org/wiki/File:5.zavargna.JPG>>.

42. *David with the Head of Goliath*, Donatello, c. 1455-60. Bronze, h. 154 cm. Museo Nazionale del Bargello, Florence. <<http://www.oxfordartonline.com/subscriber/article/img/grove/art/F014905>>.

43. *St Margaret and the Dragon*, Raphael and Giulio Romano, c. 1518. Oil on panel transferred to canvas, 185 x 117 cm. Louvre, Paris. Shearman, *Only Connect...*, 23.

44. *Penitent Magdalen*, Caravaggio, c. 1593-4. Oil on canvas, 106 x 97 cm. Galleria Doria Pamphilj, Rome. Wilson-Smith, *Caravaggio*, 39.

45. *Medusa*, Caravaggio, c. 1598. Oil on canvas over convex wooden shield, 60 x 55 cm. Galleria degli Uffizi, Florence. Wilson-Smith, *Caravaggio*, 53.

46. *Self-Portrait as Bacchus*, Caravaggio, c. 1593-4. Oil on Canvas, 66 x 52 cm. Galleria Borghese, Rome. Wilson-Smith, *Caravaggio*, 33.

47. *Self-Portrait as the Allegory of Painting (La Pittura)*, Artemisia Gentileschi, 1638-9. Oil on canvas, 98.6 x 75.2cm. The Royal Collection of Her Majesty Queen Elizabeth II. Christiansen and Mann, *Orazio and Artemisia Gentileschi*, 419.

48. *Slave Called Atlas*, Michelangelo, c. 1520-3. Marble, h. 262.9 cm. Galleria Dell' Academia, Florence. Freedberg and Gallese, 'Motion, Emotion and Empathy', 198.

49. Number 14: Gray, Jackson Pollock, 1948.
Enamel over gesso on paper, 57 x 78.5 cm.
Yale University Gallery, The Katharine Ordway Collection.
Freedberg and Gallese, 'Motion, Emotion and Empathy', 199.

50. Concetto Spaziale 'Atteza' (Spatial Concept 'Waiting'), Lucio Fontana, 1960.
Canvas, 93 x 73 cm. Tate Gallery, London.
Freedberg and Gallese, 'Motion, Emotion and Empathy', 199.

51. The Cardsharps, Caravaggio, c. 1594-5. Oil on canvas, 94.2 x 130.9 cm.
Kimbell Art Museum, Fort Worth.
Wilson-Smith, *Caravaggio*, 41.

52. St Catherine of Alexandria, Caravaggio, c. 1599. Oil on canvas, 173 x 133 cm.
Fundación Colección Thyssen-Bornemisza, Madrid.
Wilson-Smith, *Caravaggio*, 59.

53. Portrait of Fillide, Caravaggio, c. 1589-9. Oil on canvas, 66 x 53 cm.
Formerly Kaiser Friedrich Museum, Berlin (Destroyed).
Puglisi, *Caravaggio*, 130.

54. Portrait of Caravaggio, Ottavio Leoni, c. 1621-5. Chalk drawing on paper,
23.4 x 16.3 cm. Biblioteca Marucelliana, Florence. Langdon, *Caravaggio*, xii.

55. Death of the Virgin, Caravaggio, c. 1601-3. Oil on canvas, 369 x 245 cm.
Musée du Louvre, Paris. Wilson-Smith, *Caravaggio*, 77.

56. Susanna and the Elders, Artemisia Gentileschi, 1610. Oil on canvas, 170 x 119 cm.
Collection Graf von Schönborn, Pommersfelden.
Christiansen and Mann, *Orazio and Artemisia Gentileschi*, 297.

57. Judith and Her Maidservant, Artemisia Gentileschi, c. 1618-19.
Oil on canvas, 114 x 93.5 cm. Palazzo Pitti, Florence.
Christiansen and Mann, *Orazio and Artemisia Gentileschi*, 331.

58. Judith and Her Maidservant, Artemisia Gentileschi, c. 1625-7.
Oil on canvas, 182.8 x 142.2 cm. The Detroit Institute of Art, Detroit.
Christiansen and Mann, *Orazio and Artemisia Gentileschi*, 369.

59. Judith and Her Maidservant, Orazio Gentileschi, c. 1608-9.
Oil on canvas, 136 x 160 cm. Nasjonalgalleriet, Oslo.
Christiansen and Mann, *Orazio and Artemisia Gentileschi*, 83.

60. Judith and Her Maidservant with the Head of Holofernes, Orazio Gentileschi,
c. 1621-24. Oil on canvas, 136.5 x 159 cm.
Wadsworth Atheneum Museum of Art, Hartford.
Christiansen and Mann, *Orazio and Artemisia Gentileschi*, 187.

61. *Judith and Holofernes*, spandrel from the Sistine Chapel Ceiling, Michelangelo, 1508-12. Fresco, 40.2 x 13.6 m. The photographic collection of the School of World Art Studies and Museology, University of East Anglia.

62. *The Return of Judith*, Sandro Botticelli, c. 1470. Tempera on panel, 31 x 24 cm. The Uffizi, Florence. Venturi, *Botticelli*, fig. 3.

63. *Judith with the Head of Holofernes*, Andrea Mantegna or Follower (Possibly Giulio Campagnola), c. 1495-1500. Tempera on panel, 30.8 x 19.7 cm. National Gallery of Art, Washington.
<http://www.nga.gov/cgi-bin/pimage?1184+0+0>.

64. *Judith with the Head of Holofernes*, Titian, 1570, Oil on canvas, 113.03 x 95.25 cm. The Detroit Institute of Art, Detroit.
http://www.dia.org/the_collection/overview/viewobject.asp?objectid=63581.

65. *Judith and Holofernes*, Tintoretto, 1577. Oil on canvas, 188 x 251 cm. Prado, Madrid.
<http://www.museodelprado.es/coleccion/galeria-on-line/galeria-on-line/zoom/1/obra/judith-y-holofernes-2/oimg/0/>.

66. *Judith with the Head of Holofernes*, Peter Paul Rubens, c. 1616-17. Oil on Canvas, 120 x 111 cm. Herzog Ulrich Anton-Museum, Braunschweig.
<http://www.museum-braunschweig.de/Pages/Deutsch/Flandern.html>.

67. *Judith with the Head of Holofernes*, Carlo Saraceni, c. 1615. Oil on canvas 90 x 79 cm. Kunsthistorisches Museum, Vienna.
<http://bilddatenbank.khm.at/viewArtefact?id=1696>.

68. *Judith with the Head of Holofernes*, Giovanni Baglione, 1608. Oil on canvas, 220 x 150 cm. Galleria Borghese, Rome.
<http://www.wga.hu/frames-e.html?/html/b/baglione/index.html>.

69. *Judith in the Tent of Holofernes*, Johann Liss, c. 1622. Oil on canvas, 128.5 x 99 cm. National Gallery, London. Gentili, Barcham and Whiteley, *Paintings in the National Gallery*, 297.

70. *Judith*, Giorgione, c. 1504. Oil on canvas (transferred from panel), 144 x 68 cm. The State Hermitage Museum, St Petersburg.
http://www.hermitagemuseum.org/html_En/03/hm3_3_1c.html.

71. *Judith Beheading Holofernes*, Donatello, c. 1455-60. Bronze, h. 236 cm. Palazzo Vecchio, Florence.
http://www.wga.hu/frames-e.html?/html/d/donatell/3_late/index.html.

72. *Judith Beheading Holofernes*, Adam Elsheimer, c. 1601-3. Oil on copper, 24.2 x 18.7 cm. Apsley House, London. Bissell, *Artemisia Gentileschi*, fig. 26.

73. *Great Judith*, Cornelius Galle the Elder after painting by Rubens, c. 1610.
Engraving (in reverse).
Bissell, *Artemisia Gentileschi*, fig. 25.

74. *St John the Baptist*, Caravaggio, c. 1603-5. Oil on canvas, 172.4 x 104.5 cm.
Nelson-Atkins Museum, Kansas. Wilson-Smith, *Caravaggio*, 91.

75. *Supper at Emmaus*, Caravaggio, 1606. Oil on canvas, 141 x 175 cm.
Brera, Milan. Wilson-Smith, *Caravaggio*, 99.

76. *The Murder of Holofernes*, Antonio Tempesta, 1613.
Etching from biblical battles series.
National Gallery of Art, Washington.
Bissell, *Artemisia Gentileschi*, fig. 76.

77. *Perseus with the Head of Medusa*, Benvenuto Cellini, 1545-53. Bronze, h. 550 cm.
Piazza Signoria, Florence. Shearman, *Only Connect...*, 45.

78. Diagram showing the experiment and the overlap between areas activated by touch
and areas activated by the vision of touch.
Keyser, 'A Touching Sight', 337-8.

79. Overview of the Farnese Gallery Ceiling, Annibale Carracci (and to a much lesser
extent Agostino Carracci), 1598-1602. Fresco, the room measures 20 x 7 metres.
Palazzo Farnese, Rome. The photographic collection of the School of World Art
Studies and Museology, University of East Anglia.

80. *Diana and Endymion* (detail), Annibale
Carracci. Cooney, *Annibale Carracci*, fig. LI.

81. *Venus and Anchises* (detail), Annibale
Carracci. Cooney, *Annibale Carracci*, fig. LIII.

82. *Hercules and Iole* (detail), Annibale
Carracci. Cooney, *Annibale Carracci*, fig. LII.

83. *Jupiter and Juno* (detail), Annibale
Carracci. Cooney, *Annibale Carracci*, fig. L.

84. *Contest of Heavenly and Earthly Love* (detail),
Annibale Carracci. Martin, *The Farnese Gallery*, fig. 41.

85. *Contest of Heavenly and Earthly Love* (detail),
Annibale Carracci. Martin, *The Farnese Gallery*, fig. 41.

86. *Bacchus and Ariadne* (detail), Annibale
Carracci. The photographic collection of the School of World Art Studies and
Museology, University of East Anglia.

87. *Pan and Diana* (detail), Annibale Carracci.
Cooney, *Annibale Carracci*, fig. XLVIII.

88. *Mercury and Paris* (detail), Annibale Carracci. Cooney, *Annibale Carracci*, fig. IL.

89. *Pluto and Proserpina*, Gian Lorenzo Bernini, 1621–22. White marble, h. 255 cm.
Galleria Borghese, Rome. Warwick, ‘Speaking Statues’, 366.

90. *The Bean Eater*, Annibale Carracci, 1580-90. Oil on canvas, 57 x 68 cm.
Galleria Colonna, Rome. Varriano, *Caravaggio*, fig. 93.

91. *Assumption of the Virgin*, Annibale Carracci, 1600. Oil on wood, 245 x 155 cm.
S. Maria del Popolo, Rome. Puglisi, *Caravaggio*, 172.

92. *Apollo and Daphne*, Gian Lorenzo Bernini, 1622–25. Carrara marble, h. 243 cm.
Galleria Borghese, Rome. Warwick, ‘Speaking Statues’, 358.

93. Perception of size in context. Kandel, Schwartz and Jessell ,
Principles of Neural Science, 496.

94. The Kanisza Triangle.
<http://rationalwiki.com/wiki/images/d/d0/300px-Kanizsa_triangle.svg.png>.

95. Rabbit or Duck? Gombrich, *Art and Illusion* , 4.

96. *Supper at Emmaus*, Caravaggio, 1601. Oil on canvas, 139 x 195 cm.
National Gallery, London. Wilson-Smith, *Caravaggio*, 71.

97. *The Virgin of the Rocks*, Leonardo, c. 1508. Oil on wood, 190 x 120 cm.
National Gallery, London. Langmuir, *National Gallery Companion Guide*, 55.

98. *Perseus with the Head of Medusa*, Benvenuto Cellini, 1545-53. Bronze, 550 cm.
Piazza Signoria, Florence. Shearman, *Only Connect...*, 45.

99. Photograph of *David*, *Perseus and Cacus*.
Shearman, *Only Connect...* 56.

100. *The Tooth Puller*, attributed to Caravaggio, date unknown.
Oil on canvas, 139.5 x 194.5 cm. Palazzo Pitti, Florence.
Varriano, *Caravaggio*, fig. 100.

101. *Three Graces*, Raphael, 1504. Oil on panel, 17 x 17 cm. Musée Condé, Chantilly.
Oberhuber, *Raphael*, 37.

102. *Madonna dei Palafrenieri*, Caravaggio, 1605-6. Oil on canvas, 292 x 211 cm.
Galleria Borghese, Rome. Wilson-Smith, *Caravaggio*, 95.

103. *St John the Baptist*, Caravaggio, c. 1610. Oil on canvas, 159 x 124 cm.
Galleria Borghese, Rome. Wilson-Smith, *Caravaggio*, 22.

104. *Divine Love*, Giovanni Baglione, c. 1602. Oil on canvas, 183.4 x 121.4 cm. Gemäldegalerie, Berlin. Brown, *The Genius of Rome*, 265.

105. *Divine Love*, Giovanni Baglione, c. 1602. Oil on canvas, 240 x 143cm. Palazzo Barberini, Rome. Brown, *The Genius of Rome*, 265.

106. *Amor at the Fountain*, Cecco del Caravaggio (Francesco Buoneri), 1610-20. Oil on canvas, dimensions unknown. Private collection, location unknown. Varriano, *Caravaggio*, fig. 55.

107. *Boy with Basket of Fruit*, Caravaggio, c. 1593-4. Oil on canvas, 70 x 67 cm. Galleria Borghese, Rome. Wilson-Smith, *Caravaggio*, 37.

108. *Mercury Descending from Olympus* (detail from Loggia di Psyche), Raphael, 1517-19. Fresco, dimensions unknown. Villa Farnesina, Rome. Oppé, *Raphael*, plate CXXI.

109. Detail of the border above *Mercury Descending from Olympus* (see above), Giovanni da Udine, 1517-19. Fresco. Villa Farnesina, Rome. Varriano, 'Sexual Metaphor', 9.

110. St Bartholomew (detail from the Last Judgement), Michelangelo, 1536-41. Fresco, total measurement of wall 13.7 x 12.2 meters. Sistine Chapel, Vatican. Hughes, *Michelangelo*, 252.

111. *Victory*, Michelangelo, 1519-34. Marble, h. 261 cm. Palazzo Vecchio, Florence. Hughes, *Michelangelo*, 164.

112. *St Matthew and the Angel*, Gerolamo Romanino, 1521-4. Oil on canvas, 205 x 98 cm. S. Giovanni Evangelista, Brescia. Puglisi, *Caravaggio*, 182.

113. *St Matthew and the Angel*, Giovanni Girolamo Savoldo, 1530-5. Oil on canvas, 93.4 x 124.5 cm. <http://www.metmuseum.org/works_of_art/collection_database/european_paintings/saint_matthew_and_the_angel_giovanni_girolamo_savoldo/objectview.aspx?collID=11&OID=110002083>.

114. *Jupiter and Cupid* (detail from Loggia di Psyche), Raphael, 1517-19. Fresco, dimensions unknown. Villa Farnesina, Rome. Friedlaender, *Caravaggio*, 99.

115. *Doubting Thomas*, Albrecht Dürer, c. 1509. Woodcut, 12.7 x 9.7 cm. Germanisches Nationalmuseum, Nuremberg. Puglisi, *Caravaggio*, 217.

116. Images from *Evangelicae Historiae Imagines*, Bernardino Passeri, Marten de Vos, and Jerome and Anton Wierix, first printed in 1593 (these are from the 1595 edition). Engravings, dimensions unknown. Published in Antwerp. <<http://catholic-resources.org/Art/Nadal.htm>>.

117. *Jupiter, Neptune and Pluto*, Caravaggio, c. 1599-1600.
Oil on plaster, 300 x 180 cm. Villa Ludovisi, Rome.
Wilson-Smith, *Caravaggio*, 12.

118. *The Rest on the Flight to Egypt*, Caravaggio, c. 1595. Oil on canvas, 130 x 160 cm.
Galleria Doria Pamphilj, Rome.
Wilson-Smith, *Caravaggio*, 47.

119. *The Crucifixion of St Peter*, Michelangelo, 1545-50. Fresco, 625 x 662 cm.
Pauline Chapel, Vatican.
<<http://www.wga.hu/frames-e.html?/html/m/michelan/2paintin/index.html>>.

120. *The Conversion of St Paul*, Michelangelo, 1542-6. Fresco, 625 x 661 cm.
Pauline Chapel, Vatican.
<<http://www.wga.hu/frames-e.html?/html/m/michelan/2paintin/index.html>>.

121. *Conversion of St Paul*, Caravaggio, 1600-1. Oil on wood, 237 x 189 cm.
Odescalchi-Balbi Collection, Rome. Varriano, *Caravaggio*, fig. 38.

122. *Conversion of St Paul*, design after Raphael, 1514-19. Tapestry,
w. 557 cm. Pinacoteca Vaticana, Rome.
Oberhuber, *Raphael*, 158.

123. *The Conversion of St Paul*, Taddeo Zuccaro, c. 1563.
Fresco, dimensions unknown. S. Marcello al Corso, Rome.
Bailey, *Between Renaissance and Baroque*, fig. 4.

124. *The Entombment* (after Caravaggio), Peter Paul Rubens, c. 1612-1614. Oil on oak,
88.3 x 66.5 cm, National Gallery of Canada, Ottawa.
<http://cybermuse.gallery.ca/cybermuse/search/artwork_zoom_e.jsp?mkey=3915>.

125. Crucifixion, Scipione Pulzone, 1590. Oil on Canvas, dimensions unknown.
Chiesa Nuova, Rome. Zeri, *Pittura e Controriforma* fig. 83.

126. *The Ascension*, Girolamo Muziano, 1587. Oil on canvas, dimensions unknown.
Chiesa Nuova, Rome.
Barbieri, Barchiesi and Ferrara, *Santa Maria in Vallicella*, 66.

127. *Visitation*, Federico Barocci, 1586. Oil on canvas, 285 x 187 cm.
Chiesa Nuova, Rome. Puglisi, *Caravaggio*, 46.

128. *Pietà*, Michelangelo, 1498-9. Marble, h. 175 cm. St Peter's Cathedral, Rome.
Puglisi, *Caravaggio*, 175.

ACKNOWLEDGEMENTS

I wish to thank the staff of the School of World Art Studies and Museology at the University of East Anglia for all their help and support. This project would not have been possible had it not been for my three supervisors Prof. John Onians, Dr Margit Thøfner and Mr John Mitchell. Their expertise has been crucial in every aspect of this thesis. I also extend my gratitude to Prof. Sandy Heslop, who has patiently answered question after question over the past four years and Dr Anna Green whose encouragement has been invaluable. I also wish to thank Nick Warr for his expert help in imaging technology.

I further wish to thank Mrs Imelda Race and her colleagues at the Centre for Staff and Educational Development for their excellent skills training and support of the postgraduate community at the University of East Anglia. I am grateful to the considerate and obliging staff at the Warburg and Cambridge Libraries and Dr Silvia Evangelisti for assistance with translation.

Finally, the greatest debt I owe to my family for their encouragement. I thank Mr Robert Templing for his sound advice and constant friendship. I am eternally grateful to my partner Dr Matthew Sillence for his unfailing help and devoted support.

PART 1: INTRODUCTION

1.1: ARGUMENT

‘What is all the fuss about?’¹

This is what Federico Zuccaro (c. 1540-1609) purportedly asked when he saw the new paintings by Caravaggio (1571-1610) in S. Luigi dei Francesi (figs. 1, 2 and 3). In many respects it is also the question this thesis seeks to answer. What is new in my answer is the use of neuroscience. This thesis sets out to deal with a traditional art-historical query concerning the viewer reactions to Caravaggio’s paintings using some of the latest knowledge about the brain.

Giovanni Baglione (c. 1566-1643) reports Zuccaro’s comment in his biography of Caravaggio and in doing so he sets up two different responses to the paintings.

Primarily, he is testifying that a well known, respected (albeit slightly unfashionable) artist did not rate the St Matthew cycle in S. Luigi. This supports Baglione’s own very critical views of Caravaggio’s contribution. Secondly, in making the statement he has to concede that Caravaggio’s paintings received a great deal of attention, that there was such a substantial interest in his works that even important people like Zuccaro, who was the first president of the Accademia di S. Luca, wanted to see them.²

While the negatively critical responses to Caravaggio’s imagery are well known, the ‘fuss’ has received less interest, most likely due to the lack of evidence. Baglione uses the word ‘rumore’ which is translated by Hibbard as ‘fuss’. However, more literally it means ‘noise’ and ‘rumour’ combined. The ‘fuss’ is thus some sort of ill-defined clamorous viewer reaction. This thesis does not deal with everything that could be implied by that sweeping definition. It is not about spectator reception, nor does it examine the audience’s aesthetic judgements regarding Caravaggio’s paintings, even though it at times involves both these areas. Rather, the thesis explores particular aspects of viewer response to Caravaggio’s paintings, above all the emotional aspects of empathy suggested by seventeenth-century theoretical treatises. Giovanni Paolo Lomazzo (1538-1600), who lived and worked in Milan where Caravaggio was an

¹ Giovanni Baglione, *Le Vite de’ Pittori, Scultori et Architetti...*, [Rome: 1642], reproduced and trans. in Howard Hibbard, *Caravaggio*, (London: Thames and Hudson, 1983), 351-6 at 353.

² For introductory information on Zuccaro and his career see Sydney Joseph Freedberg, *Painting in Italy 1500-1600*, (Pelican History of Art Series, London: Penguin Books, 1971), 643-7.

apprentice, provides a detailed description of the emotional and physical engagement of the viewer:

‘Therefore, just as it naturally happens that someone who laughs or cries or makes some other expression moves others who see him to have the same emotion of happiness or of grief, as he [Horace] said ‘if you want to see me weep you first have to suffer pain yourself so then your misfortune harms me’; thus and not differently a picture composed with gestures taken from life as I said above without doubt will cause [the viewer] to laugh with he who laughs, to think with he who thinks, to grieve with he who cries, rejoice with he who rejoices and furthermore to marvel with he who marvels, to desire a beautiful girl for a wife when seeing a nude, to suffer with he who is afflicted and to feel hungry when he sees someone eating precious and delicate food, to fall asleep at the sight of someone sleeping sweetly, to feel moved and almost become infuriated with those who fight in a spirited way in battle represented with their own appropriate and fitting movements, to be moved with contempt and revulsion at the sight of those doing disgusting and shameful deeds and an infinite number of similar emotions.’³

This thesis will demonstrate how Caravaggio’s use of movement, gesture and expression in his paintings resulted in the emotional engagement of the early-seventeenth-century viewer. There is now neuroscientific data that is directly related to the issues of emotional engagement and empathetic reactions to imagery, which can be used to explicate statements such as that by Lomazzo. Indeed, the connection between seeing a person making particular gestures and expressions and empathising with that person, is now substantiated by modern neuroscience.

That the movements and expressions of the characters in the paintings were important in viewer-engagement is a commonplace in discussions on artistic practice.⁴ The dutiful study of and the subsequent skilful depiction of movements and expressions was a part of the artist’s objective. Walter Friedlaender argues that Caravaggio’s *Boy*

³ Giovanni Paolo Lomazzo, *Trattato dell’Arte de la Pittura*, [Milan: 1584], (Hildesheim: Georg Olms Verlagsbuchhandlung, 1968), 105. I have received help from Matthew Sillence, John Onians, and Silvia Evangelisti in the translation of this text. [The viewer] was added. See Appendix 1 for the Italian version.

⁴ See ‘Gesture and Expression’ in John Varriano, *Caravaggio, The Art of Realism*, (University Park: Pennsylvania State University Press, 2006), 101-13.

Bitten by a Lizard (fig. 4) constitutes the ‘most outstanding instance of physiognomical research’⁵ and that it is ‘progressive in its presentation of facial and bodily contortions’.⁶ However, Friedlaender does not mention any effect this may have on the viewer. That people empathised with Caravaggio’s images is not a novel claim, but it is yet to be thoroughly substantiated. Helen Langdon, in the introduction to her biography of the artist, declares that ‘His greatest gift was for empathy’.⁷ However, instead of supporting this statement with further evidence, the author treats it as a general explanation for why his religious paintings resonate with modern viewers. In contextualising Caravaggio’s innovative treatment of religious narratives, scholars have often referred to *Spiritual Exercises*, such as, but not restricted to those by Ignatius of Loyola (1491 or 1495-1556).⁸ Pamela Jones even points out the connection between this type of devotional practice and the viewing experience of Caravaggio’s *Madonna di Loretto* (fig. 5), although, she does not examine the connection in any detail.⁹ These three different components (movement, empathy and spiritual exercises) have not been considered simultaneously as aspects of Caravaggio’s working practices or as crucial components of the viewer engagement with his paintings.

Art historians have used various tools to understand the impact of Caravaggio’s imagery on viewers. Jones uses written responses and examines the cultural contexts of particular commissions to clarify what ‘horizons of expectations’¹⁰ different types of audiences might have brought to bear on images.¹¹ In contrast, David Freedberg challenges such an emphasis on cognitive, historical and cultural contexts and suggests instead a focus on ‘universal’ neural mechanisms involved in an empathetic response to imagery such as Caravaggio’s *Doubting Thomas* (fig. 6). He argues that it is necessary for art historians to understand the basic neural components of human response to grasp

⁵ Walter Friedlaender, *Caravaggio Studies*, (Princeton: Princeton University Press, 1955), 86.

⁶ Friedlaender, *Caravaggio*, 86.

⁷ Helen Langdon, *Caravaggio A Life*, (London: Pimlico Press, 1999), 1.

⁸ Ignatius of Loyola, *The Spiritual Exercises*, 5th ed., trans. William Hawks Longbridge, (London: Mowbray, 1955). Joseph Chorpenning provides a good overview of arguments regarding Caravaggio and the importance of spiritual exercises, ‘Another Look at Caravaggio and Religion’, *Artibus et Historiae*, 8/16, (1987), 149-158.

⁹ Pamela Jones, *Altarpieces and Their Viewers in the Churches of Rome from Caravaggio to Guido Reni*, (London: Ashgate, 2008), 107.

¹⁰ Jones uses this phrase from the work of Hans Robert Jauss in order to set herself apart from those accounts studying mainly the recorded responses Jones, *Altarpieces*, 2. Hans Robert Jauss, ‘Literary History as a Challenge to Literary Theory’, in Ralph Cohen (ed.) *New Directions in Literary History*, (London: Routledge and Kegan Paul, 1974), 11-41.

¹¹ Jones, *Altarpieces*.

the impact that art works can have on the viewer.¹² While Jones cites Freedberg's earlier work and praises the merits of it, she concludes that the approach is not suitably historical, something that could also easily be claimed about his more recent neuroscientifically based work.¹³ While these two approaches may seem diametrically opposed, we need not consider Jones's historical relativism and Freedberg's biological determinism to be beyond reconciliation.

There are wider implications of reconciling these two approaches. Historical relativism is an important factor of Michael Baxandall's concept of the 'period eye', which has provided art historians with a model for how to analyse contextually specific perception of objects.¹⁴ He begins the chapter on the 'period eye' with a discussion of the eye and the brain; however, his analysis is restricted to the skills and learning of the viewer. In this sense he is closer to Jones than Freedberg in his analysis of viewer engagement. With a neuroarthistorical approach, Baxandall's concept of the 'period eye' can be extended, including a wider variety of experiences, such as empathetic, emotional and visceral reactions to works of art.

A neuroarthistorical approach provides new types of tools, beyond the visual and textual evidence, that can be used in historical studies. One set of tools is the knowledge of the role of 'mirror neurons' in empathetic experiences; these can throw light on how humans are engaged and emotionally involved by gestures and expressions in imagery.¹⁵ Another set is that relating to neural plasticity, which shows how the brain changes as a result of training and experience. This sheds light on how Spiritual Exercises could increase susceptibility to Caravaggio's paintings.

There are thus two entwined arguments to this thesis. In one I seek to demonstrate that people engaged and even empathised with Caravaggio's imagery because of the way he depicted movement and expression. In another I claim that viewers in early seventeenth century Rome are likely to have been particularly

¹² David Freedberg and Vittorio Gallese, 'Motion, Emotion and Empathy in Esthetic Experience', *Trends in Cognitive Sciences*, 11/5, (2007), 197-203 at 197.

¹³ She refers to David Freedberg, *The Power of Images*, (Chicago: University of Chicago Press, 1989). However, this focus on universality is also a strong feature in his recent work including neuroscientific material. Freedberg and Gallese, 'Motion, Emotion and Empathy', 197-203.

¹⁴ Michael Baxandall, *Painting and Experience in Fifteenth Century Italy*, 2nd ed., (Oxford: Oxford University Press, 1988), 29-108.

¹⁵ For examples of mirror neuron activities in human brains see Philip Jackson, Andrew Meltzoff and Jean Decety, 'How do we Perceive the Pain of Others? A Window into the Neural Processes involved in Empathy', *Neuroimage*, 24/3, (2005), 771-9, Vittorio Gallese, 'The 'Shared Manifold' Hypothesis; From Mirror Neurons To Empathy', *Journal of Consciousness Studies*, 8/5-7, (2001), 33-50 and Giacomo Rizzolatti et al., 'Language Within our Grasp', *Trends in Neuroscience*, 21, (1998), 188-94.

susceptible to imagery of this kind as they were trained in empathetic experiences. Through this double argument I contend that recent advances in neuroscience have had a great impact on how the production of and response to artefacts can be understood. Neuroscience offers the art historian the opportunity of a more detailed account of the mechanisms involved in viewer engagement.

1.2: VIEWER ENGAGEMENT, CARAVAGGIO AND NEUROARTHISTORY: A LITERATURE REVIEW

1.2.1: Defining engagement

Engagement can suggest a multitude of relationships between viewers and a work of art. On a general level, ‘Engagement’ can be several things, referring to an involvement or commitment of some sort; it could be an employment, a promise to marry or a battle. It denotes the condition, the state or fact of ‘being engaged’. More specifically, to ‘engage’, in the sense it is used throughout this thesis, is ‘to cause to be held fast; to involve, entangle’.¹⁶ In particular, the term can refer to attracting and ‘holding fast’ the viewer’s attention and interest. The engagement of the viewer, thus supposes an involvement of the viewer. This can be contrasted with other terms that art historians might use, such as ‘response’. ‘Engagement with’ as a concept may then be compared to ‘response’ or ‘reaction to’.

An artist, a patron and the general people engage with a work of art with specific equipment, expectations and skills. It is clear that the nature and level of engagement differs depending on who is looking and what is being looked at. The category ‘engagement’ then necessarily incorporates a variety of ‘engagements’. Intellectual responses and emotional reactions can be treated separately, as in the cases of Baxandall and Freedberg respectively. However, it is clear that viewers can engage in a variety of connected ways; intellectual, emotional, empathetic and even visceral. Indeed, discussing viewer engagement enables the art historian to be more inclusive and as a consequence discuss the relations between such categories. Viewer engagement also has a long history in the writing on art and perception.

1.2.2: Viewer engagement before Caravaggio

Lomazzo supports his claims about the viewer’s physical and emotional engagement (quoted above p. 18), by quoting Horace (65-8 BC).¹⁷ In doing so, he acknowledges a long tradition of using emotional expressions of different kinds to engage an audience. Xenophon’s (c. 435- 354 BC) *Memorabilia* includes the possibly earliest account of

¹⁶ *OED*, s.v. ‘engage’.

¹⁷ Horace, *Ars Poetica*, trans. Henry Rushton Fairclough, (The Loeb Classical Library, London: William Heinemann Ltd., 1926), 459.

emotional engagement to art. In this Socrates (469-399 BC) asks the sculptor Cleiton a number of questions and establishes that the illusion of life in art is a result of ‘accurately representing the different parts of the body as they are affected by the pose - the flesh wrinkled or tense, the limbs compressed or outstretched, the muscles taut or loose’.¹⁸ This ‘exact imitation of the feelings that affect bodies in action also produce[s] a sense of satisfaction in the spectator.’¹⁹

In his *Poetics*, Aristotle (384-322 BC) suggests that the whole purpose of a tragedy is to move the audience, something achieved through astonishing them.²⁰ He argues that the basis for the arts, including the visual arts, is imitation. He founds this argument on the precept that ‘imitation comes naturally to human beings from childhood’²¹; it is fundamental to the learning process and humans naturally take pleasure in it.

Cicero (106-43 BC) notes that for effective delivery of a speech the orator necessarily had to be skilled in expressing emotion with his body, his hands, his face and most importantly the eyes.²² The use of emotion and emotional expression so commonly used to stir the audience in theatre was also useful to the orator:

‘For it is not easy to succeed in making an arbiter angry with the right party, if you yourself seem to treat the affair with indifference; or in making him hate the right party, unless he first sees you on fire with hatred yourself; nor will he be prompted to compassion, unless you have shown him the tokens of your grief by word, sentiment, tone of voice, look and even by loud lamentation’,²³

Here the focus on empathetic engagement is stronger as Cicero needs the audience to respond with the same emotion as that displayed by the orator. The statement by Horace in *Ars Poetica* is addressing the same issue as regards to poetry; ‘As men’s faces smile on those who smile, so they respond to those who weep. If you would have me weep,

¹⁸ Xenophon, *Memorabilia*, book 3, trans. Edgar Cardew Marchant, (The Loeb Classical Library, London: William Heinemann Ltd., 1926), x. 6-9, 235.

¹⁹ Xenophon, *Memorabilia*, 235.

²⁰ Aristotle, *Poetics*, trans. Malcolm Heath, (London: Penguin, 1997), 17.

²¹ Aristotle, *Poetics*, 6.

²² Cicero, *De Oratore*, book 3, vol. 2, trans. Edward William Sutton and Harris Rackham, (The Loeb Classical Library, London: William Heinemann Ltd, 1942), 169.

²³ Cicero, *De Oratore*, book 2, vol.1, trans. Edward William Sutton and Harris Rackham, (The Loeb Classical Library, London: William Heinemann Ltd., 1942), 335.

you must first feel grief yourself: then.... will your misfortunes hurt me'.²⁴ He argues that it is not enough for poetry to be beautiful and have charm; it should also 'lead the hearer's soul'.²⁵ It is further important to Horace that the words are spoken in a voice that betrays the emotion, otherwise the words fall flat and the effect is lost.

Quintilian (c. 35- c. 100) follows Cicero and develops a whole theory of how emotion is to be used by the orator. Therefore, in addressing a judge 'those feelings should prevail with us that we wish to prevail in the judge, and that we should be moved ourselves before we attempt to move others'.²⁶ In order for the orators to get emotionally involved before speaking, they need to use the imagination so that 'things absent are presented to our imagination with such extreme vividness that they seem actually to be before our very eyes'.²⁷ The outcome is that the orator's 'emotions will be no less actively stirred than if [they] were present at the actual occurrence'.²⁸ He even makes a statement on his own proficiency in these matters. 'I have frequently been so much moved while speaking, that I have not merely been wrought upon to tears, but have turned pale and shown all the symptoms of grief'.²⁹

Lomazzo was not the first to use this ancient notion of empathetic engagement in regard to the visual arts. Leon Battista Alberti (1404-72) writes that 'we mourn with the mourners, laugh with those who laugh and grieve with the grief-stricken'.³⁰ In order to move the spectator the painter needs to be able to paint movements and expressions of characters well. Furthermore, he argues that these depictions need to be appropriate to the subject matter. The competent depiction of expressions and gestures should thus emotionally engage the viewer as well as effectively convey the meaning of the narrative. Leonardo da Vinci (1452-1519) follows and develops Alberti's notions in his writings on anatomy and motion. He emphasises that in order to paint well, an artist has to study closely the movements of the body as these betray the motions of the mind.³¹ His experience as a practising painter makes his claims particularly persuasive and one of his theories concerning the artist's engagement with the imagery is particularly

²⁴ Horace, *Ars Poetica*, 459.

²⁵ Horace, *Ars Poetica*, 459.

²⁶ Quintilian, *The Institutio Oratoria of Quintilian*, trans. Harold Edgeworth Butler, (The Loeb Classical Library, London: William Heinemann Ltd., 1921), 433.

²⁷ Quintilian, *Institutio Oratoria*, 433-5.

²⁸ Quintilian, *Institutio Oratoria*, 435-7.

²⁹ Quintilian, *Institutio Oratoria*, 439.

³⁰ Leon Battista Alberti, *On Painting and On Sculpture*, trans. Cecil Grayson (ed.), (London: Phaidon, 1972), 81.

³¹ Leonardo da Vinci, *On Painting, An Anthology of Writing*, trans. Martin Kemp (ed.) and Margaret Walker, (New Haven: Yale University Press, 1989), 130-153.

striking. His contention that ‘each peculiarity in a painting has its prototype in the painter’s own peculiarity’³² has been influential in art historical writing. Leonardo uses the examples of quick, devout, lazy and mad painters who paint characters that have the same characteristics. In a similar fashion the supposedly dark and violent Caravaggio has been considered to paint dark and violent imagery.³³ Leonardo is more subtle in his theory and his explanation of the phenomenon is less famous. He suggests that it is the experience, or judgement, of the artist’s own body that enables him to perceive, or judge, other bodies, anticipating modern neuroscience and the data on mirror neurons. Alberti, Leonardo and Lomazzo all posit that the suggested movements of the painted characters could elicit both emotional and empathetic experiences.³⁴ All three writers maintain the etymological connection between movement of the body and the face with the movement of the soul or spirit developed from the Latin phrase ‘motus animae’, literally ‘movement of the spirit’.³⁵

1.2.3: From Lomazzo to Le Brun

The late sixteenth century saw a major increase in the attention placed on movement, and as a consequence gesture and expression. Lomazzo expands extensively on earlier theories and dedicates a whole chapter to the topic, in his *Trattato dell’Arte de la Pittura* (Milan, 1584). He becomes the first to systematically approach the subject. Firstly, he emphasises that a character in painting can have the same empathetic effect as a real human. Secondly, he adds to the number of emotional responses considered by earlier readers and contributes several physical effects to the list. He suggests that looking at a correctly painted character can make the viewer feel sleepy, hungry, ‘amorous’ and suffer with someone in pain (which he then substantiates by the quote from Horace). This is important as not only does he mention emotional states as bound to empathetic responses, but also purely bodily functions such as fatigue, hunger and desire. Crucially Lomazzo sees a common base for all of these types of engagement; the response to a painting relies on movement to make the viewer engage viscerally, emotionally and morally. According to Lomazzo, sight is vital in both emotional and empathetic engagement of the human mind/brain and body.

³² Leonardo, *On Painting*, 204.

³³ See for example Langdon, *Caravaggio*, 1.

³⁴ Alberti, *On Painting*, 81-7. Leonardo, *On Painting*, 130-153. Lomazzo, *Trattato*, 105-86.

³⁵ John Ayto, *Dictionary of Word Origins*, (London: Bloomsbury, 1990), 200.

While the art-theoretical concern with movement and empathetic viewer engagement is clear, there is little mention of Caravaggio's treatment of these matters by his biographers. They all tend instead to focus on a related matter; his supposed practice of imitating nature as opposed to exploiting the imagination. Since these are important primary sources of Caravaggio's life and work, the focus on Caravaggio's realism has also occupied modern scholars.³⁶ The biographies by Carel van Mander (1548-1606), Giulio Mancini (1558-1630), Giovanni Baglione, Francesco Scannelli (1616-1663), Giovanni Pietro Bellori (1613-1696) and Joachim von Sandrart (1608-1688) are thus also used throughout this thesis.³⁷ The original works have been handed down in various formats, although most are reprinted from the first publication of the works. Van Mander who worked as a painter and writer in Haarlem, provides the first account of Caravaggio's life, which crucially was produced in Caravaggio's lifetime.³⁸ Mancini was a medical doctor and a keen connoisseur of painting. His manuscripts date from 1617-21 and while they were not published there were several copies that were influential on other writers of art.³⁹ Giovanni Baglione's *Vite* (1642) is particularly interesting as he was one of Caravaggio's followers, who subsequently developed a deep dislike of the painter and became his rival.⁴⁰ Scannelli was a priest, physician and writer. His *Il Microcosmo della Pittura* is from 1657.⁴¹ Bellori's *Vite* promoted Annibale Carracci at the expense of Caravaggio. His treatment of Caravaggio as

³⁶ See for example Varriano, *Caravaggio*.

³⁷ These are all readily available (in original and translated) in Howard Hibbard's *Caravaggio*. This thesis will most regularly refer back to the section in Hibbard for the sake of brevity and accessibility for the reader. While his reprints are reliable, I have modified some of his translations which will be made clear in the footnotes. Hibbard, 'Appendix II', *Caravaggio*, 343-387.

³⁸ Hibbard's excerpt of van Mander is from the first publication from 1604. Carel van Mander, 'Het Leven der Moderne, oft dees-tijtsche doorluchtighe Italiaensche Schilders' in Part III of *Het Schilder-Boeck*....(Harleem: Passchier van Wesbusch, 1604), fol. 190.

³⁹ For Mancini's account of Caravaggio's life Hibbard uses Marucchi's publication, the first edition to appear of his work, which is based on the manuscripts from 1617-21. Giulio Mancini, *Considerazioni sulla Pittura*, 2 vols., ed. Adriana Marucchi (Rome: Accademia Nazionale dei Lincei, 1957), 223-6. This edition includes extensive notes however for a further discussion of the manuscripts see Denis Mahon, *Studies in Seicento Art and Theory*, (Westport, Conn.: Greenwood Press, 1971), 279-331.

⁴⁰ Giovanni Baglione's *Vite* is known from the first published version in 1642. There are several facsimiles of the original publication. Hibbard uses a photographic copy of the original publication with Bellori's notes in the margin. Hibbard's text is identical to the facsimile I have consulted: Giovanni Baglione, *Le Vite de' Pittori, Scultori et Architetti, Dal Pontificato di Gregorio XIII del 1572. In fino a tempi di Papa Urbano Ottavo nel 1642*, [Rome: Stamperia d'Andrea Fei, 1642], (High Wycombe: University Microfilms, 1973), 136-9.

⁴¹ Hibbard's text excerpts are identical to the original publication from 1657 in the Cambridge University Library: Francesco Scannelli, *Il Microcosmo della Pittura*, (Cesena: Peril Neri, 1657), 51-2, 197-9 and 277.

Annibale's opposite has influenced modern scholarship.⁴² Finally, Sandrart's 'life of Caravaggio' was printed in 1675. Sandrart took care of Vincenzo Giustiniani's collection of paintings and sculpture from 1632.⁴³ Giustiniani was Caravaggio's patron. These sources tend toward a negative view of Caravaggio as a person, his working practices and the finished paintings. Their biases are problematic for modern scholars who have to negotiate the artist's fame and success at the beginning of the century and the subsequent decline in his reputation by the end of the century.

While the reputation of Caravaggio was dwindling towards the end of the seventeenth century, the emphasis on gesture and expression in painting was a very important part of new art theory. In 1688 Charles Le Brun (1619-1690) gave a lecture on the subject, which was subsequently published in several different editions. He states, like his predecessors, that a picture cannot be perfect without expression, since the representation will not appear 'real' without it.⁴⁴ The lecture focuses on detailed descriptions of how the emotions are expressed in the face, through the movement of muscles and nerves. Le Brun used drawings to demonstrate his point. Emphasising the scientific component of his argument, he promises the audience to come back and address the value of physiognomics. He also stated that 'it is my opinion that the soul receives the impressions of the passions in the brain, and that it feels the effect of them in the heart'.⁴⁵ He continues by referring to the variety of expressions and how these are felt; 'JOY is an agreeable emotion of the soul which consists in the enjoyment of a good which the impressions of the brain represents as its own'.⁴⁶ In referring to the brain in these terms his statement anticipates the types of claims made by neuroscientists today.

⁴² The most widely used and recognised version of Bellori's *Vite* (also used by Hibbard) is the edition by Borea which is based on the first publication in 1672. Giovanni Pietro Bellori, *Le Vite de' Scultori e Architetti Moderni*, [Rome: 1672], ed. Evelina Borea (Turin: Giulio Einaudi, 1976), 208-236.

⁴³ Sandrart's 'life of Caravaggio', as printed in the first 1675 version, is reproduced in full in the 1925 edition by Peltzer. This work is abridged in parts; however, the life of Caravaggio is intact, and in Caravaggio scholarship this publication is used most frequently. I have compared Hibbard's version with a publication from 1675 in the Cambridge University Library: Joachim von Sandrart, *Joachim von Sandrart's Academie der Bau-, Bild- und Mahlerey-Künste von 1675*, (Nürnberg: 1675), 189-90.

⁴⁴ Le Brun, 'Lecture on Expression', [Paris, 1688], in Jennifer Montague, *The Expression of the Passions, the Origin and Influence of Charles Le Brun's Conférence sur l'Expression Générale et Particulière*, (New Haven: Yale University Press, 1994), 126.

⁴⁵ Le Brun, 'Lecture', 126.

⁴⁶ Le Brun, 'Lecture', 127.

1.2.4: The nineteenth century

The 1870s saw three different developments in separate fields of study, each of which has implications for a discussion of viewer engagement. The first concerns facial expressions. Charles Darwin's (1809-82) *The Expression of the Emotions in Man and Animals*⁴⁷ was published in 1872. It was the first time facial expressions were connected to the process of evolution. By studying facial expressions of humans and animals, he examined in particular why a certain expression should follow a particular emotion. For example, in the case of human astonishment he notes that 'The raising of eyebrows is necessary in order that the eyes should be opened quickly and widely'.⁴⁸ He draws the conclusion that expressions are vital for human survival. The similarity of human expressions to those of monkeys (who also show raised eyebrows and wide open eyes when astonished) supports his evolutionary theory.

The second development was also scientific. At the same time as Darwin was finishing his book, Camillo Golgi (1843-1926) developed a particular type of staining process that made it possible to see individual neurons. His method was subsequently used by Santiago Ramón y Cajal (1852-1934) who thereby managed to depict three layers of retinal neurons. For the first time the complexity of the human brain could be studied in detail.⁴⁹

The third development was an increasing emphasis on empathy in aesthetics.⁵⁰ Empathy had been discussed in 1866 by Friedrich Theodor Vischer (1807-1887) who believed that humans intuitively project their emotions on the rest of the world: 'Thus we say, for example, that this place, these skies and the colour of the whole, *is* cheerful, *is* melancholy, and so forth'.⁵¹ His son, Robert Vischer (1847-1933), expanded on this idea and applied it to the viewer's experience of an object in 1873. He argues that some of the aesthetic reaction occurs from the movement of the eye:

'I too rise and plunge along those rocky contours, along the 'heaving mountains' ... That pleasurable feeling of movement which is otherwise

⁴⁷ Charles Darwin, *The Expression of the Emotions in Man and Animal*, [1872], (London: Harper Collins, 1998).

⁴⁸ Charles Darwin, *Expression of the Emotions*, 278.

⁴⁹ Mitchell Glickstein, 'Vision Structure and Function: The Early History', in Leo Chalupa and John Werner (eds.), *The Visual Neurosciences*, 2 vols. (Cambridge Mass.: MIT Press, 2004), 3-13.

⁵⁰ For an overview see Harry Mallgrave (ed.), *Empathy Form and Space. Problems in German Aesthetics 1873-1893*, (Santa Monica: Getty Center for the History of Art and the Humanities, 1994).

⁵¹ Friedrich Theodor Vischer, 'Critique of My Aesthetics', [1866] in Charles Harrison, Paul Wood and Jason Gaiger (eds.), *Art in Theory: 1815-1900*, (Oxford: Blackwell Publishing, 1998), 687-8.

communicated to me by the objects actually in motion, by the stormy sea, the leaping hound, the flying bird, is generated within me as I successively perceive the forms, dimensions and lines of motionless objects'⁵²

He also suggests that humans empathetically transpose and transform themselves into the objects they look at, be it a ‘proud’ fir tree, an ‘angry’ cloud or a ‘prickly stubborn’ cactus.⁵³ Art historians immediately realised the importance of the Vischers’ contribution. Heinrich Wölfflin (1864-1945), whose contribution is more widely recognised, was influenced by Robert Vischer in his doctoral thesis ‘Prologomena to a Psychology of Architecture’ (1886). While Vischer seems to have been content with the aesthetic experience engaging the eyes and taking place in the human imagination, Wölfflin emphasises instead that empathy involves the whole body and while looking at columns it is ‘as if we ourselves were the supporting columns’.⁵⁴

1.2.5: The rediscovery of Caravaggio

While empathy was widely debated, Caravaggio was neglected by scholars. Wölfflin does not mention Caravaggio at all in his comparison between ‘Renaissance’ and ‘Baroque’ in his *Principles of Art History* (1932).⁵⁵ The beginning of the twentieth century saw only a slight interest in the artist. This changed after the 1951 exhibition in Milan, ‘Mostra del Caravaggio e dei Caravaggeschi’, organised by Roberto Longhi. In that early 1950s Bernard Berenson, Denis Mahon and Lionello Venturi all published important contributions to Caravaggio scholarship.⁵⁶ After this point a wealth of material was produced that concerned the artist’s engagement. Walter Friedlaender’s *Caravaggio Studies* from 1955 emphasises Caravaggio’s ability to reinvent narratives

⁵² Robert Vischer, ‘The Aesthetic Act and Pure Form’, [1873] in Harrison, Wood and Gaiger, 690-3 at 692.

⁵³ Vischer, ‘The Aesthetic Act’, 690-3.

⁵⁴ Heinrich Wölfflin, ‘Prologomena to a Psychology of Architecture’, [1886] in Charles Harrison, Paul Wood and Jason Gaiger (eds.), *Art in Theory: 1815-1900*, (Oxford: Blackwell Publishing, 1998), 711-17, at 714. The relation between the column and the human body is also discussed by neuroaristhitorian John Onians, *Bearers of Meaning, The Classical Orders in Antiquity, the Middle Ages, and the Renaissance*, (Princeton: Princeton University Press, 1988).

⁵⁵ Heinrich Wölfflin, *Principles of Art History: the Development of Style in Later Art*, [1932], (New York: Dover Publications, 1950).

⁵⁶ Bernhard Berenson, *Del Caravaggio, delle sue Incongruenze e della sua Fama*, (Florence: Electa, 1950). Denis Mahon, ‘Egregius in Urbe Pictor: Caravaggio Revised’, *The Burlington Magazine*, 93/580, (1951), 223-235. ‘Caravaggio’s Chronology Again’, *The Burlington Magazine*, 93/582, (1951), 286-292. Lionello Venturi, *Il Caravaggio*, (Novara: Istituto geografico de Agostini, 1951).

and stresses in particular Caravaggio's intense understanding of religious matters.⁵⁷ He also suggests Caravaggio's use of Michelangelo's work as source material. Howard Hibbard's *Caravaggio* (1983) presented biographical and psychological factors as important components of Caravaggio's work. The psychological, bordering on sensationalist, readings aside, Hibbard is particularly useful as he provides a convenient assemblage of primary texts and translations.⁵⁸

Among recent studies of Caravaggio, the books by Langdon, Spike and Varriano have been particularly useful.⁵⁹ These authors have different but complementary outlooks on Caravaggio's life and work. Langdon contextualises Caravaggio's work with an impressive attention to detail. Even though there are speculative passages in her writing, her archival research has unearthed several significant pieces of information that pertain not only to Caravaggio but also the wider context of late sixteenth- and early-seventeenth-century Rome. Her account brings the environment and the people to life through the amassing and orchestration of useful details. John Spike's biography includes the most up-to-date chronology and catalogue of the autograph and attributed works, as well as later copies. Rather than treating Caravaggio biographically and his works sequentially, John Varriano concentrates on analysing Caravaggio's realisms and shows how multifaceted this term can be if examined closely. The different aspects of Caravaggio's working methods, which Varriano has termed empiricism, are investigated in detail and the various components of his work explained in new ways.

1.2.6: Perception and viewer engagement in the twentieth century

Visual perception was a hotly debated topic in many disciplines in the second half of the twentieth century. One important empirical anthropological study of the nature of visual perception was undertaken in the 1960s. Segall, Campbell and Herskovits demonstrated, in *The Influence of Culture on Visual Perception*⁶⁰ (1966), that human beings living in different environments actually see the world differently. They showed how people who are exposed to cuboid objects, for example buildings, rooms and furniture (tables and cupboards), are more susceptible to the Müller-Lyer illusion (fig. 7) than those who are

⁵⁷ Friedlaender, *Caravaggio*.

⁵⁸ Hibbard, 'Appendix II', *Caravaggio*, 343-387.

⁵⁹ Langdon, *Caravaggio*. John Spike, *Caravaggio*, (London: Abbeville Press Publishers, 2001). Varriano, *Caravaggio*.

⁶⁰ Marshall Segall, Donald Campbell and Melville Herskovits, *The Influence of Culture on Visual Perception*, (Indianapolis: Bobbs Merrill, 1966), 209-14.

not generally exposed to these types of objects. Whereas their test-subjects living in natural environments in Africa saw the lines as equal in length, westerners always saw one line as longer than the other as it was perceived to be more distant than the first. They thus showed how the environment impacts on how human beings perceive the world.

Just a few years after Herskovits and his team published their findings, another anthropologist, Paul Ekman, endeavoured to prove Darwin wrong by demonstrating that emotions are culturally specific and that emotional expressions are learned behaviours. He hoped to develop a cultural theory of emotion. He compared Western patterns of emotion to those of a group of New Guineans who had never been exposed to Western emotional ranges before. His cultural theory of emotion was not verified and instead he had to concede that certain emotional expressions are universal and innate. Even though Ekman met criticism from several disciplines, his theory is now widely accepted among neuroscientists.⁶¹

While Ernst Gombrich used biology to a greater extent than most twentieth-century art historians, he was ambivalent about the use of biological science in discussions on art. In ‘Physiognomic Perception’ (1963) he acknowledges that recognising facial expressions is a natural process for human beings and argues that when looking at someone’s face ‘we see its cheerfulness or gloom, its kindness or harshness, without being aware of reading ‘signs’.⁶² The statement makes clear the limits of semiological approaches. He even describes this expression perception as global and immediate. However, he realises that the biological system is not infallible and simply because the artist paints an emotion does not necessarily mean that the beholder will understand it.⁶³ In 1966, he suggests a spectrum of gestures, beginning with the visible sign of natural physical reaction, or ‘symptom’, and progressing to the ritual gesture, or ‘symbol’ that can easily be devoid of emotion.⁶⁴ Even though Gombrich collaborated with the neuropsychologist Richard Gregory, in *Illusion in*

⁶¹ Paul Ekman, Wallace Friesen and Phoebe Ellsworth, *Emotion in the Human Face*, (New York: Pergamon, 1972). Paul Ekman and Erika Rosenberg eds., *What the Face Reveals*, (Oxford: Oxford University Press, 2005). Dylan Evans, *Emotion, the Science of Sentiment*, (Oxford: Oxford University Press, 2001), 4-6, 15 and 106, gives a concise and useful overview of Ekman’s influence.

⁶² Ernst Gombrich, ‘Physiognomic Perception’, in *Meditations on a Hobby Horse and other Essays on the Theory of Art*, (London: Phaidon, 1963), 45-55 at 47.

⁶³ Gombrich, ‘Physiognomic Perception’, 45-55.

⁶⁴ Ernst Gombrich, ‘Ritualized Gesture and Expression in Art’, *Philosophical Transactions of the Royal Society of London*, 251, (1966), 393-401.

Nature and Art (1973), his essay betrays little influence of neuroscientific data.⁶⁵ In 1982 he suggests that the nineteenth-century ideas about empathy may be partially right as he notes ‘Unless introspection deceives me, I believe that when I visit a zoo my muscular response changes as I move from the hippopotamus house to the cage of weasels’.⁶⁶ This section follows an explanation of why humans project themselves onto animals, for example, in caricature, and he believes that this response is instinctual, automatic and involuntary. Finally, in *The Sense of Order*, the ‘sense’ is entirely based in a biological function. In the preface to the second edition he states his claim firmly; ‘there exists a *Sense of Order* which manifests itself in all styles of design and which I believe to be rooted in man’s biological heritage’.⁶⁷

Michael Baxandall begins his chapter on ‘the period eye’ in *Painting and Experience in Fifteenth-Century Italy*, with several references to human biology and its importance in perception. This may seem surprising as the subtitle of his book is: *A Primer in the Social History of Pictorial Style*. After a brief introduction to the way the human eye functions, he mentions the brain as the point at which ‘the human equipment for visual perception ceases to be uniform’.⁶⁸ He further states that the interpretation of the data from the eye differs from person to person as it depends on the brain’s previous experience as well as on innate skills. The ‘period eye’ may thus be considered a bit of a misnomer as the differing equipment is not actually the eye, as Baxandall points out, but the brain. His willingness to pay close attention to the role of the human eye is further shown in his essay ‘Fixation and Distraction: The Nail in Braque’s Violin and Pitcher’.⁶⁹ In a sophisticated argument he uses data on eye-movement to suggest how a viewer might be guided around Braque’s painting. A prominent nail at the top and the similarly prominent features of the violin are easy to focus on with the middle of the eye, the fovea, whereas the periphery of the eye is better stimulated by the jug and the left flank of the image, resulting in the eye’s continuous movement around the

⁶⁵ Ernst Gombrich and Richard Gregory (eds.), *Illusion in Nature and Art*, (London: Gerald Duckworth, 1973).

⁶⁶ Ernst Gombrich, *The Image and the Eye; Further Studies in the Psychology of Pictorial Representation*, (Oxford: Phaidon, 1982), 128.

⁶⁷ Ernst Gombrich, *The Sense of Order*, 2nd edn., (London: Phaidon, 1984), xii. For Gombrich’s use of biology see John Onians, ‘Gombrich and Biology’, Paula Lizarraga (ed.), *E.H.Gombrich in Memoriam*, (Pamplona: Ediciones Universidad de Navarra, 2003), 95-119.

⁶⁸ Baxandall, *Painting and Experience*, 29.

⁶⁹ Michael Baxandall, ‘Fixation and Distraction: The Nail in Braque’s Violin and Pitcher’, in John Onians (ed.), *Sight and Insight; Essays on Art and Culture in Honour of E. H. Gombrich at 85*, (London, Phaidon, 1994), 399-415.

composition and the artist's success in making the viewer consider all the different areas of the painting.⁷⁰

These tenuous references to human biology and human experience are important as the dominant theoretical approaches for discussing art were focusing entirely on the 'historical conditions of origin and reception'.⁷¹ In 1991 Norman Bryson, Michael Ann Holly and Keith Moxey suggest that such an approach would refuse 'to ground representation either in perception or in the phenomenological experience of the world'.⁷² The perceptual and/or phenomenological explanations are, according to its critics 'designed to be independent of issues of historical variation'.⁷³ Indeed, Bryson particularly criticises Gombrich's approach in *Art and Illusion* and summarises by stating that 'Perceptualism, the doctrine whose most eloquent spokesman is undoubtedly Gombrich, describes image-making entirely in terms of these secret and private events, perceptions and sensations occurring in invisible recesses of the painter's and the viewer's mind'.⁷⁴ He argues instead for a semiotic approach that takes into account cultural and social contexts and states that 'whereas in the Perceptualist account the image is said to span an arc that runs from the brush to the retina, an arc of inner vision or perception, the recognition of painting as a sign spans an arc that extends from person to person and across *inter-individual space*'.⁷⁵

John Shearman's *Only Connect...* from 1992 is an important contribution as he argues that an engaged early modern spectator took pleasure in seeing works of art as 'happening', as moving before his/her eyes. However, in his survey which spans several hundred years, Shearman avoids discussing experience and analyses the 'happening' on an intellectual level.⁷⁶

⁷⁰ See also John Onians article for an account of Baxandall's use of biology and neuroscience, 'Michael Baxandall's "Period Eye": From Social Art History to Neuroarthistory', *Quintana*, 4, (2005), 109-114.

⁷¹ Norman Bryson, Michael Ann Holly and Keith Moxey (eds.), 'Introduction', in *Visual Theory*, (Cambridge: Polity Press, 1991), 1.

⁷² Bryson, Holly and Moxey, *Visual Theory*, 1.

⁷³ Bryson, Holly and Moxey, *Visual Theory*, 1.

⁷⁴ Norman Bryson, 'Semiology and Visual Interpretation', in Bryson, Norman, Holly, Michael Ann and Moxey Keith, *Visual Theory*, (Cambridge: Polity Press, 1991), 61-73 at 65.

⁷⁵ Bryson, 'Semiology and Visual Interpretation', in *Visual Theory*, 65.

⁷⁶ John Shearman, *Only Connect... Art and the Spectator in the Italian Renaissance*, (The A. W. Mellon Lectures at The National Gallery of Art, Washington: Princeton University Press, 1992).

1.2.7: Recent developments

Most of the advances in neuroscience have been made since the mid 1990s. These were closely followed by approaches to art and aesthetics that used neuroscientific material. The reasons for the rapid increase of data in the neurosciences are new ways of investigating the brain, most notably through PET scans (positron emission tomography) and fMRI (functional magnetic resonance imaging) which provide detailed views of the working human brain.⁷⁷

Neuroscience textbooks are now readily available. Mark Bear's *Neuroscience; Exploring the Brain* provides a basic overview of the human brain and its functions.⁷⁸ *Principles of Neural Science* edited by Eric Kandel, James Schwartz and Thomas Jessell provides a compact yet thorough introduction to neuroscience.⁷⁹ It is sufficiently detailed to be useful and at the same time basic enough to provide cogent overviews of topics within the field. It deals with both the basic components of the human brain as well as the neural processes by which humans adapt to their natural and social environment and learn from experience. It is multidisciplinary in that the writers make use of, for example, psychological, genetic, anatomical and molecular biological data to inform their own findings. Kolb and Wishaw concentrate more intently on how the brain's functions produce human behaviour in *An Introduction to Brain and Behaviour*.⁸⁰ Dale Purves' *Neuroscience*, also a basic textbook, includes a particularly good overview of how the human brain structure changes over time.⁸¹ There are also textbooks with more specific focus, such as Leo Chalupa and John Werner's two volumes on *The Visual Neurosciences*. These include a range of detailed articles on the entire visual system.⁸²

The newness of the subject and its fast development means that for the most part new data and new hypotheses are published in scientific journals. The differing focuses of these journals has the advantage that discoveries, most notably those relating to

⁷⁷ Clifford Saper, Susan Iversen and Richard Frackowiak, gives a good overview, 'Integration of Sensory and Motor Function: The Association Areas of the Cerebral Cortex and the Cognitive Capabilities of the Brain', Eric Kandel, James Schwartz and Thomas Jessell (eds.), *Principles of Neural Science*, 4th ed., (New York: McGraw-Hill, 2000), 349-80.

⁷⁸ Mark Bear et al. eds., *Neuroscience; Exploring the Brain*, (Baltimore: Lippincott Williams and Wilkins, 1996) with subsequent editions in 2001 and 2007.

⁷⁹ Eric Kandel, James Schwartz and Thomas Jessell (eds.), *Principles of Neural Science*, 4th ed., (New York: McGraw-Hill, 2000).

⁸⁰ Bryan Kolb and Ian Wishaw (eds.), *An Introduction to Brain and Behaviour*, (New York: Worth Publishers, 2001).

⁸¹ Dale Purves et al. (eds.), *Neuroscience*, (Sunderland, Mass.: Sinauer, 2004).

⁸² Leo Chalupa and John Werner (eds.), *The Visual Neurosciences*, 2 vols. (Cambridge Mass.: MIT Press, 2004).

mirror neurons, are discussed in the context of different theoretical frameworks. *Trends in Neuroscience* is one of the most wide-ranging; *Journal of Consciousness Studies* includes neuroscientific research that impacts on debates on consciousness, while *Journal of Cognitive Neuroscience* focuses on how humans acquire information, and provides neuropsychological articles alongside purely neuroscientific contributions.

One of the major advances is the discovery of ‘mirror neurons’. There are now several studies that suggest that these neurons constitute the basis for action recognition, learning from observation and empathy. The principal scientists working on mirror neurons are part of a team at the Department of neurosciences at the University of Parma headed by Giacomo Rizzolatti. Motor neurons in the macaque monkey brain that respond both to making goal-oriented hand and mouth movements as well as to seeing those types of movements were discovered in 1988.⁸³ However, they started becoming the focus of research for the first time in 1992⁸⁴ and in 1996 ‘mirror neuron clusters’ were found in human brains.⁸⁵ Mirror neurons in a macaque’s or human being’s brain respond to the movements of the individual’s own body as well as to seeing the movements of an external body. Every time the individual sees an action performed, the brain responds in the same way as if that individual were in fact moving. This provides a basic link, not only between human beings but also between viewers and painted characters.

Rizzolatti has also worked closely with Michael Arbib at the University of Southern California on research that suggests a link between mirror neurons and verbal communication.⁸⁶ Another prominent member of the team in Parma is Vittorio Gallese, who brings the data on the mirror neurons to bear on philosophical issues of consciousness.⁸⁷ Similar types of neurons have now been traced in various areas of the human brain. In 2005, Philip Jackson, Andrew Meltzoff and Jean Decety found similar types of neurons in the pain areas of the brain. As a consequence of understanding how humans react to seeing others in pain they are also able to investigate the evolutionary

⁸³ Rizzolatti et al., ‘Functional Organization of Inferior Area 6 in the Macaque Monkey. II. Area F5 and the Control of Distal Movements.’, *Experimental Brain Research*, 71/3, (1988), 491-507.

⁸⁴ Giuseppe di Pellegrino et al., ‘Understanding motor events: a neuro-physiological study’, *Experimental Brain Research*, 91, (1992), 176-180.

⁸⁵ Giacomo Rizzolatti et al., ‘Premotor Cortex and the Recognition of Motor Actions’, *Cognitive Brain Research*, 3, (1996), 131-141. They base some of this study a previous study by Luciano Fadiga et al., ‘Motor Facilitation during Action Observation: a Magnetic Stimulation Study’, *Journal of Neurophysiology*, 73, (1995), 2608-2611.

⁸⁶ Rizzolatti, ‘Language’, 188-94.

⁸⁷ Gallese, ‘Shared Manifold’, 33-50.

advantages of empathy.⁸⁸ Wicker and others have made similar discoveries in studies on facial expressions.⁸⁹

These developments in neuroscience have encouraged interdisciplinary approaches to art and aesthetics. The main areas of research are neuroaesthetics, socio-biology and neuroarthistory. The neurobiologist Jean Pierre Changeux published *L'Homme Neuronal* in 1983 (two years later it appeared in an English translation).⁹⁰ This early attempt towards redefining the human mind in biological terms was followed in the mid 1990s by an article particularly concerned with art and aesthetics. 'Art and Neuroscience' refers to a variety of neuroscientific data loosely applied to aesthetics. For example, he suggests that the frontal lobe can be stimulated both symbolically and emotionally by a painting, something he deems the most likely source of empathy as an aesthetic pleasure. He may also be the first to have referred to Rizzolatti's discoveries of 'mirror neurons' in macaque monkeys and state that these are important in gesture recognition.⁹¹

Sociobiologists have an interest in finding an evolutionary basis for artistic behaviour. They thus search for common denominators in artistic expression that would somehow have been useful to survival.⁹² The term 'making special', contributed by Ellen Dissanayake in her book *Homo Aestheticus* (1992)⁹³, is one of the definitions of artistic practice presented in *The Sociobiology of the Arts* (1999).⁹⁴ She uses the term in order to expand the variety of objects under study, meaning that anything that has been marked or changed by human hands can be considered. However, the term has connotations of the preciousness art historians have tried to avoid by using terms such as material and visual culture. Unfortunately, this concept of the 'specialness' of art is perpetuated by most of the authors with a base in the sciences.⁹⁵

Another important contribution to interdisciplinary approaches involving both art and science was a special issue concerning art and the brain in the *Journal of*

⁸⁸ Jackson, Meltzoff and Decety, 'Pain of Others', 771-9.

⁸⁹ Wicker et al., 'Both of Us Disgusted in My Insula', *Neuron*, 40/3, (2003), 655-664.

⁹⁰ Jean-Pierre Changeux, *Neuronal Man; The Biology of the Mind*, (New York: Pantheon Books, 1985).

⁹¹ Jean-Pierre Changeux, 'Art and Neuroscience', *Leonardo*, 27/3, (1994), 189-201.

⁹² Marcel Roelle and Jan Wind, 'Sociobiology and the Arts. An Introduction', in *Sociobiology and the Arts*, Jan Baptiste Bedaux and Brett Cooke (eds.), (Amsterdam: Editions Rodophi, 1999), 9-26.

⁹³ Ellen Dissanayake, *Homo Aestheticus, Where Art Comes From and Why*, (New York: Free Press, 1992).

⁹⁴ Ellen Dissanayake, 'Sociobiology and the Arts: Problems and Prospects' in *Sociobiology and the Arts*, 27-42.

⁹⁵ Most notably Changeux, 'Art and Neuroscience', 189-201 and Semir Zeki, 'Neural Concept Formation & Art; Dante, Michelangelo, Wagner', *Journal of Consciousness Studies*, 9/3, (2002), 53-76.

Consciousness Studies. This included Vilayanur Ramachandran and William Hirstein's article 'The Science of Art' and Semir Zeki's 'Art and the Brain'.⁹⁶ Ramachandran and Hirstein introduced eight universal principles that could be involved in aesthetic experience. Their major contribution was to provide the neurological basis for a connection between looking at particular features and having an emotional response. They further argued that the emotional response may be a consequence of evolutionary development and thus beneficial to human survival. In showing how the limbic system, (the part of the brain dealing with basic reactions like hunger, thirst, sex drive and emotions) works together with the rest of the brain the researchers went some way in challenging the primacy of cognition. Semir Zeki, on the other hand, proposed a specific principle relating to the brain's tendency to 'finish' or complete patterns and unclear features.⁹⁷ His theories are founded on his own research on the visual cortex, most fully described in *Inner Vision* (1999).⁹⁸ They term their approaches neuroesthetics (Zeki) or neuroaesthetics (Ramachandran).⁹⁹

Warren Neidich attempts to bring together historical contextuality with biological processes and aesthetics in *Blow-Up: Photography, Cinema and the Brain* (2003). He devises the terms ‘‘visual and cognitive ergonomics’ to describe the way in which ‘objects, their relations, and the spaces they occupy, affect changes in the human brain’.¹⁰⁰ In his terminology, ‘visual ergonomics’ is about defining space, while ‘cognitive ergonomics’ denotes temporality. These terms are concepts built on the neuroscientific data on neural plasticity. Neidich is particularly interested in how material culture shapes the way in which humans view the world and the consequences this has for modern art, especially photography and cinema.¹⁰¹

Norman Bryson may seem an unlikely ally to researchers using biological data in understanding visual culture. However, in the introduction to Neidich's *Blow-up* it is

⁹⁶ Vilayanur Ramachandran and William Hirstein, 'The Science of Art, A Neurological Theory of Aesthetic Experience', *Journal of Consciousness Studies*, 6/6-7, (1999), 15-51. Semir Zeki, 'Art and the Brain' in *Journal of Consciousness Studies*, 6/6-7, (1999), 76-96. These two articles were published in the first special issue on art and the brain. This was followed by another two volumes, one in 2000 and another in 2004.

⁹⁷ Ramachandran and Hirstein, 'Science of Art', 15-51 and Zeki, 'Art and the Brain', 76-96.

⁹⁸ Semir Zeki, *Inner Vision; an Exploration of Art and the Brain*, (Oxford: Oxford University Press, 1999).

⁹⁹ Ramachandran and Hirstein, 'Science of Art', 15-51. Semir Zeki, 'Art and the Brain', 76-96.

¹⁰⁰ Warren Neidich, *Blow-Up: Photography, Cinema and the Brain*, (New York: Distributed Art Publishers, 2003), 21.

¹⁰¹ Neidich, *Blow-Up*, 21-30.

clear that Bryson has redefined his position as a result of knowing how the brain changes due to external input:

‘The radicalism of neuroscience consists in its bracketing out the signifier as the force that binds the world together: what makes an apple is not the signifier ‘apple’...., but rather the simultaneous firing of axons and neurons within cellular and organic life.’¹⁰²

Barbara Maria Stafford has had a longstanding interest in merging art history with science. In *Visual Analogy* (1999)¹⁰³ she discussed art in relation to debates on consciousness (including some neurobiological material) and *Echo Objects* (2007) tackles the new advances in neuroscience in particular. She even refers to mirror neurons. However, her approach is philosophical rather than art-historical and her focus is to draw analogies between modern science and modern art.¹⁰⁴

One of the first art historians to connect mirror neurons to viewer experience is David Freedberg. He presents a coherent, albeit general, framework for understanding embodied aesthetic responses, in the article ‘Motion, Emotion and Empathy’ (2007), co-written with Vittorio Gallese. The authors explain the bodily reactions that can arise from looking at images such as Goya’s illustrations in *Desastres de la Guerra* (fig. 8) and Caravaggio’s *Doubting Thomas* (fig. 6) as a result of the mirror neurons connecting the viewer to the painted characters. To make the point, they emphasise emotion, as opposed to cognition, as a critical aesthetic component in the viewing of imagery. By presenting the foundations of emotional responses to art in this way, Freedberg hopes to ‘challenge the primacy of cognition in responses to art’.¹⁰⁵ In contrast to his approach is the recent contextual study of spectatorship in early modern Rome by Pamela Jones; *Altarpieces and their Viewers in the Churches of Rome from Caravaggio to Guido Reni*. Although it suggests viewer engagement it is wholly focussed on the cognitive and does not deal with emotional engagement.¹⁰⁶

In the article ‘The Origins of Art’ from 1978, John Onians, the founder of

¹⁰² Norman Bryson, ‘Introduction: The Neural Interface’, in Neidich, *Blow-up*, 11-9 at 14.

¹⁰³ Barbara Maria Stafford, *Visual Analogy, Consciousness as the Art of Connecting*, (Cambridge, Mass.: MIT, 1999).

¹⁰⁴ Barbara Maria Stafford, *Echo Objects, The Cognitive Work of Images*, (Chicago: University of Chicago Press, 2007).

¹⁰⁵ Freedberg and Gallese, ‘Motion, Emotion and Empathy’, 197-203 at 197.

¹⁰⁶ Jones, *Altarpieces*.

neuroarthistory, refers for the first time to neurons as he states that perception relies on ‘the operation of sets of neurons in the cortex of our brains which are specifically programmed to be stimulated by information of a particular character’.¹⁰⁷ Onians suggests that the knowledge that the human brain (and other species’ brains) has developed to respond more to some features than others, can be useful to art history. In *Bearers of Meaning* (1988) he states that;

‘neurons in the cortex of the brain are genetically programmed to react to dangerous and important shapes, movements, and changes of colour – a sensitivity that may atrophy if never stimulated by such visual experiences, or may become increasingly sensitive if frequently triggered’¹⁰⁸

This flexibility of the human brain lies at the core of neuroarthistory. The brain changes depending on the visual experiences an individual has, and thus offers the art historian the opportunity to investigate cultural and individual differences. Onians uses this by trying to reconstruct the visual environment in order to understand what types of visual preferences would have been dominant and thus would show up in the art work of a particular period.

Onians also applies his natural history of art to emotional responses in his essay in *Sight and Insight* (1994).¹⁰⁹ There he deals with astonishment and wonder as the natural basis for curiosity and then learning, something that he argues was taken advantage of at different times in history by both patrons and collectors.

In ‘World Art Studies and the Need for a New Natural History of Art’ (1996), Onians suggests what is necessary for the success of world art studies.¹¹⁰ In order to treat art as a global phenomenon it is crucial that art historians study human nature as an essential part of culture.

Onians has since applied his approach in various contexts, more than can be accounted for here, and has particularly focused on the human brain’s capacity to change as a result of external input (neural plasticity). One example is the rediscovery of perspective and he argues that;

¹⁰⁷ John Onians, ‘The Origins of Art; Part II, Commentary’, *Art History*, 1/1, (1978), 11-7 at 16.

¹⁰⁸ John Onians, *Bearers of Meaning*, (Princeton: Princeton University Press, 1988), 4.

¹⁰⁹ The volume, edited by Onians, contained a series of essays dedicated to Gombrich. John Onians, ‘I wonder...’: A short History of Amazement’, in *Sight & Insight*, (London: Phaidon Press, 1994), 11-34.

¹¹⁰ John Onians, ‘World Art Studies and the Need for a new Natural History of Art’, *Art Bulletin*, 78/2, (1996), 206-9

‘only in Florence....did the principles governing brain development ensure that individuals brought up there would enjoy such an intensive growth of neural networks designed to deal with receding orthogonals that they were biologically better prepared to apply existing theory on the geometry of optics to the representation of pictorial space.’¹¹¹

Similarly, Onians compares the motor activities in Europe with those of the Chinese. The prominence in Europe of military gear such as swords and the emphasis on the soldier he argues led to a subsequent preference for hard writing implements and painting technique where a brush and palette (assimilating sword and shield) was directed towards an upright easel. This is compared with the prominence of irrigation techniques in China and a preference for loose brush work on a horizontal surface.¹¹²

In an article, published in 2003, Onians promotes his approach, ‘neuroarthistory’, and explains why it could be useful to other approaches, such as social, Freudian, feminist, semiological, post-structuralist and post-colonial art history. He writes that ‘they are all making assumptions about the way the brain functions’,¹¹³ and suggests that it is sensible to understand how the brain functions before making claims about human behaviour. Beyond neuroarthistory he suggests a similar approach to anthropological studies of art in ‘A Natural Anthropology of Art’ (2003).¹¹⁴

The *Atlas of World Art* (2004) provides one answer to the task set by Onians in 1996 in the *Art Bulletin*, providing the reader with a geographical survey of material culture from the early ice age to the year 2000.¹¹⁵ He argues that instead of treating humans as distinctly different from animals, the *Atlas* ‘takes quite a different point of view, acknowledging that we are animals and seeing the production of culture as a part of our nature’.¹¹⁶ His book *Neuroarthistory* (2007) reintroduces many authoritative

¹¹¹ John Onians, ‘The Biological Basis of Renaissance Aesthetics’, in Francis Ames-Lewis and Mary Rogers (eds.), *Concepts of Beauty in Renaissance Art*, (Aldershot: Ashgate, 1998), 12-27 at 15.

¹¹² John Onians, ‘The Nature of Art in Lin Fengmian’s China’, in *The Centenary of Lin Fengmian*, (Shanghai: 1999), 690-715.

¹¹³ John Onians, ‘Inside the Brain: Looking for the Foundations of Art History’, in Margaretha Rossholm Lagerlöf and Dan Karlholm (eds.), *Subjectivity and Methodology in Art History*, (Stockholm: University of Stockholm, 2003), 125-138. This article is also an excellent summary of Onians’ research as it incorporates a variety of case studies.

¹¹⁴ John Onians, ‘A Natural Anthropology of Art’, *International Journal of Anthropology*, 18, (2003), 259-264.

¹¹⁵ John Onians (ed.), *Atlas of World Art*, (London: Laurence King Publishing, 2004).

¹¹⁶ Onians, ‘Introduction’, in *Atlas*, 10-13.

figures as neuroarthistorians, as they have made or make use of human nature to understand artistic production, spectatorship and appreciation. In a list of twenty-five names, Onians includes Aristotle, Pliny the Elder, Alberti, Leonardo, Hogarth, Winckelmann, Wölfflin, Vischer, Freud, and, as expected, Gombrich and Baxandall. Indeed many of the other names may be expected; Leonardo's interest in human vision, to take the most obvious example, is well documented. The book presents the historical foundations of neuroarthistory; a longstanding tradition of acknowledging human biology as an important component of art history and theory.¹¹⁷ It is also in 2007 that he launches neuroarchaeology. He argues, on the basis of a knowledge of both mirror neurons and neural plasticity, that the origin of representational art and the development of such art in the Chauvet caves need not be the result of 'conscious symbolic behaviour'.¹¹⁸

In his address to the *Ways Forward*, a World Art conference that he organised in 2007 at the University of East Anglia, Onians stressed the importance of reconsidering the supposed 'autonomy of culture'. He argued that it is necessary, to understand the natural constraints of environment and biology, in order to understand cultural outputs.¹¹⁹

¹¹⁷ Onians, *Neuroarthistory*, (New Haven: Yale University Press, 2007).

¹¹⁸ John Onians, 'Neuroarchaeology and the Origins of Representation in the Grotte de Chauvet', in Colin Renfrew and Iain Morley (eds.), *Image and Imagination; A Global History of Figurative Representation*, (Cambridge: Cambridge University Press, 2007), 307-320 at 307.

¹¹⁹ John Onians, 'Understanding Art Worldwide: the Need to Take More Account of Nature. Or the 'autonomy of culture' delusion' conference paper given at *Ways Forward*, The University of East Anglia, Norwich, 08.11.07.

1.3: APPROACH

My approach is neuroarthistorical in the sense that I use neuroscientific data to study a contextually specific phenomenon: Caravaggio's emphasis on movement and the audience's subsequent engagement with his imagery. This involves focussing on the workings of the human brain, in particular mirror neurons and neural plasticity. I use the data on mirror neurons to show how movement in works of art can elicit viewer engagement; trigger emotional and empathetic responses. This is similar to Freedberg's approach.¹²⁰ However, like Onians, I additionally draw on neural plasticity, in order to show that people in early modern Rome were particularly susceptible to empathetic responses.

I agree with Bryson, and more prominently Onians and Freedberg,¹²¹ that neuroscientific data can provide the basis for a more comprehensive understanding of human experience and perception. In his introduction to Neidich's *Blow-Up*, Bryson points out flaws in the theories of Wittgensteinian philosophy, which is concerned with the analysis of language, in Deconstructionism, which is concerned with textual meaning, and in Psychoanalysis, concerned with symbolism that reveals the unconscious content. He argues that Wittgensteinian philosophy, Deconstructionism and Psychoanalysis (which can be further defined with the help of neuroscience¹²²) are limited as they are necessarily focused on the textual, the symbolic and thus the cognitive. Whilst these theories are useful in the examination of signification they are less helpful in other areas of research. Bryson draws attention to the advantages of a neuroscientific approach and significantly to the drawbacks of poststructuralist theories. One major advantage of the former is that it helps with:

‘the resolution of a classic difficulty faced by poststructuralist thought in relation to the breadth of experience that it is able to describe; for by concentrating on the signifier as the basic unit of description, the analysis commits itself to an intensely *cognitive* point of view. Feeling, emotion, intuition, sensation - the creaturely life of the body and of the embodied

¹²⁰ Freedberg and Gallese, ‘Motion, Emotion and Empathy’, 197-203.

¹²¹ John Onians, ‘Neuroarthistory as the New Art History’, paper given at *Intersections*, the 35th Annual Conference of the Association of Art Historians, Manchester, 03.04.2009. Freedberg and Gallese ‘Motion, Emotion and Empathy’, 197-203.

¹²² Onians, ‘Neuroarthistory as the New Art History’.

experience - tend to fall away, their place being taken by an essentially *clerical* outlook that centres on the written text'.¹²³

And further on in the same paragraph he notes that:

'Though semiotics is often at pains to point out that the signifier belongs to a sensory order, it is difficult to modulate the term so as to include the full range of sensuous and emotional experience, the affective, the physical and the kinaesthetic.'¹²⁴

In exploring emotional viewer experiences to Caravaggio's paintings it seems sensible to consider the neural functions involved. However, it then raises the question of why emotional engagement is so important. Baxandall's 'period eye' serves here as a foundation for the answer to this question as well as a catalyst for my approach. After discussing the human eye and the brain, where perception is no longer homogeneous, Baxandall continues by exploring what impact experience can have on differences in perception:

'In practice these differences are quite small, since most experience is common to us all: we all recognise our own species and its limbs, judge distance and elevation, infer and assess movement, and many other things. Yet in some circumstances the otherwise marginal differences between one man and another can take on a curious prominence.'¹²⁵

Baxandall privileges these marginal differences. He identifies a few crucial elements of what he terms the 'cognitive style' of primarily male patrons in fifteenth-century Italy which relates to a very particular set of skills (for example religious or mathematical) that are applied to the viewing of painting.¹²⁶ He argues that these skills were particularly important in fifteenth-century Italy because a painter's skill became more

¹²³ Bryson, 'The Neural Interface', 14.

¹²⁴ Bryson, 'The Neural Interface', 14.

¹²⁵ Baxandall, *Painting and Experience*, 29.

¹²⁶ Baxandall, *Painting and Experience*, 29-108.

important as an economic commodity (compared, for example, to the cost of labour-time or the amount of costly paints used) in this period.¹²⁷

There are two principal areas in which this approach may need to be developed and changed. Firstly, the focus on what Baxandall calls the ‘cognitive style’ leads to a neglect of other components of perception, such as emotional engagement. Secondly, the narrow range of skills discussed can only really be expected of a small number of educated men. Both problems become evident as he discusses the use of religious images. These were to educate the illiterate, to make it easier for people to remember the biblical stories and to stir the emotions of the viewer (this idea was still current in seventeenth-century Rome). It is clear that focussing on the cognitive skills of the educated male patron (as Baxandall indeed does) neglects a large proportion of the audience as well as the emotional experiences of these viewers. Baxandall admits to having a narrow focus and when he focuses on gestures he chooses those that are most likely to need very particular types of skill. For example, the different narrative episodes of the Annunciation require familiarity with a variety of gestures that signify different parts of that narrative. This is one of the circumstances in which only an initiated viewer would have full access to the meaning of the imagery. There is then a tension between the necessity for simplicity, in order for the illiterate to understand the imagery, and the complexity of gestural signification, required for different narrative episodes of the Annunciation. Baxandall’s focus on a small number of viewers means that he does not need to address this tension. Similarly, his focus on a small set of learned skills means that he does not need to explain how these stock poses from a painter’s vocabulary would be used to move the viewer. Since Baxandall is focusing on the marginal differences in fifteenth-century patrons’ cognitive skills, addressing these issues was not even necessary for him. Baxandall’s research was groundbreaking in arguing that the differences between people’s experiences and skill impacts on their perception. However, in order to discuss the nature of emotional engagement with Caravaggio’s imagery a ‘period eye’ for the seventeenth century will not suffice. As a term, the ‘contextual brain’ may function better for the art historian’s purposes, even though admittedly this is a less catchy phrase. Replacing ‘period’ with ‘contextual’ may also be more useful as it has the potential of describing both spatial and temporal differences. As will be demonstrated, a neuroarthistorical approach is more flexible and therefore

¹²⁷ Baxandall, *Painting and Experience*, 1-27.

more applicable to issues of emotional engagement as opposed to purely cognitive responses. Focusing on the ‘contextual brain’, neuroarthistory allows the art historian to discuss experiences other than formally acquired skills, including environmental, social and cultural contexts that impact on human perception.

1.4: STRUCTURE

It is crucial that the three parts of neuroarthistory are explored further. While Part 1 (the introduction) has provided an overview of the discussions regarding viewer engagement, Part 2 will thus present the three components, or frameworks, that are considered throughout the thesis. The first task consists of introducing the human brain and the neuroscientific material, particularly the data available on mirror neurons and neural plasticity. The second task is to give an overview of the context where the artists, the patrons and the general people engaged with art works. Rome, as it was when Caravaggio worked there, is introduced, with a focus on the papacy and its pervasive influence on life in the city. The third task relates to the art and particularly the art-theoretical concerns in Italy around 1600. This involves, not only consideration of Rome, but also Milan, as this is where Caravaggio received his training, and Bologna, where Annibale Carracci (1560-1609) worked before coming to Rome (he is generally seen as Caravaggio's rival). The choice of emphasising these three cities is thus based on the movement of the artists and the intellectual debates that would have fed into their training and further artistic practices. The three places and the theoretical concerns found in each place are also connected through some of the most powerful social circles in Italy, making it likely that the theories were widely circulated.

The discussion will then move on to three different types of viewer: the artist, the collector and the general church-going audience. It does this in order to show how pervasive empathetic viewer engagement was in early modern Rome. It is possible to single out other groups, such as pilgrims, the male elite or the clergy and the three categories in this thesis constitute one particular sample of viewers.

Part 3 discusses the artists' viewer engagement. This group is important for two related reasons. Firstly, it is now recognised that several of Caravaggio's works depend on the artist's engagement with earlier sources. Secondly, Caravaggio's works served as inspiration for a whole new generation of painters. This part therefore introduces Caravaggio and two of the Caravaggisti: Orazio (1563-1639) and Artemisia Gentileschi (1593-1654). It also introduces the responses of Caravaggio's biographers and how their judgements have guided the focus of modern scholarship. The first case study focuses on Caravaggio's and Artemisia's paintings of *Judith Beheading Holofernes* (figs. 9, 10 and 11). Part 3 demonstrates firstly that Caravaggio emphasised movement in his paintings and secondly that this was an important feature in the making of Artemisia's

versions. That the painters were concerned with the depiction of movement and their viewer engagement is crucial since they are the makers of the works.

Part 4 discusses Caravaggio's patrons' and collectors' engagement with the imagery. This group is particularly important as these individuals would make or break careers, impact on the finished product and display the works to other people. While the group is prioritised by Baxandall, he neglects the emotional and empathetic engagement; something this thesis seeks to remedy. Focusing on Vincenzo Giustiniani (1564-1637), the second case study will analyse three Caravaggio paintings in his collection: *Victorious Cupid* (fig. 12), *St Matthew and the Angel* (fig. 13) and *Doubting Thomas* (fig. 6). At a basic level, these three paintings offer visual evidence of an emphasis on movement and through it viewer engagement. However, the collectors and patrons are important as a particular category as they endorsed the work of Caravaggio and other artists. They were encouraging competition between artists in order to improve the arts. Further, they paid attention to movement and emotional engagement. This is clear both from examining the types of imagery they commissioned and collected from Caravaggio, Annibale Carracci and Gianlorenzo Bernini (1598-1680), as well as through analysing how they displayed these pieces. The evidence of positive accounts of Caravaggio's imagery suggests that the artists were considered similar in many respects. Caravaggio's realism (or painting on the basis of nature) was connected to bringing the character to life. This emphasis on lifelikeness recurs in connection to all three artists, albeit in different ways. In the case of Caravaggio, it was not necessarily achieved through photographic likeness, but rather through the emphasis on the human figure through the appropriation of stark shadows. These emphasise the bodies and thus the movements of those characters. Indeed, movement can be considered a crucial component of early seventeenth-century developments in art.

In Part 5, I will turn towards a larger audience and discuss the impact of spiritual exercises and the wider context of religious fervour in early-seventeenth-century Rome on the empathetic engagement of the audience. The church-going audience is by far the largest and most diverse sample treated in this thesis. It may even seem that as a category it is too inclusive to be useful. However, most of the churches of Rome were accessible to all visitors and the paintings in these churches were made to cater for the varied population of Rome as well as tourists and pilgrims. It is thus important to consider how paintings could have engaged such a wide audience. The visitors included people of different class, nationality, gender and age (including artists and patrons).

Indeed the churches were spaces where the rich ecclesiastical elite came into close quarters with the poor and sick, prostitutes and pilgrims. It is important to acknowledge that each viewer would approach the paintings with unique equipment. This part of the thesis will show how paintings in churches were particularly devised to educate and engage a variety of spectators. The third and last case study will deal with two of Caravaggio's most prestigious commissions: *The Crucifixion of St Peter* (fig. 14) and *The Conversion of St Paul* (fig. 15) in S. Maria del Popolo and *The Entombment* (fig. 16) in the Chiesa Nuova.

PART 2: FRAMEWORKS

2.1: INTRODUCTION

Neuroarthistory seeks to combine neuroscience, art and history in the study of art production and reception. This is why Part 2 provides the reader with three different types of knowledge: of the human brain, of Caravaggio's historical context and of the art-theoretical concerns that were prevalent in Italy around 1600. These are all important factors in the argument. In Baxandall's discussion of the 'period eye' the eye's biology is ignored after the initial introduction.¹²⁸ In contrast, the use of the notion of the 'contextual brain' requires consideration of the interaction of the biological brain with its environmental, social and cultural contexts. The first section, on the human brain, deals with its workings, concentrating particularly on mirror neurons and on neural plasticity.

This is followed by a section on the historical framework, which introduces important aspects of Rome around 1600; the context that shaped Caravaggio's viewers' brains. It also gives a brief overview of Milan as this is where Caravaggio trained to become an artist, and thus had an important impact on his neural networks. The papacy made Rome very different to other European cities. While this section also introduces the population, the changing structure of the city, the importance of the Spanish and patronage systems, the pressures to display the success of the Church at the Anno Santo in 1600 are particularly noteworthy. This section also gives an overview of some of the types of people who had access to Caravaggio's works and the contexts for these encounters.

The last section will examine what art theoretical concerns were prevalent around 1600. In different ways, those in Rome, Milan and Bologna prioritise the viewer and consider both the importance of empathetic responses and clarity of subject matter. These three cities are particularly important centres for artistic production around 1600 and in the context of artistic production in Rome around 1600, Milan and Bologna played important roles. While the cities provide very different contexts for the artists and art theory, they are also bound together through the movement of people; painters, patrons and art theorists. This section will therefore focus on the relations between the people interested in theoretical issues. These personal connections evidence

¹²⁸ Baxandall, *Painting and Experience*, 1-27.

interrelations between Milan, as the place in which Caravaggio learnt how to paint, Bologna, where his supposed rival Annibale Carracci worked, and Rome where both artists worked from the end of the sixteenth century. The art theory also provides one particularly important framework for artistic production in the period, indicating what types of responses the artists were aiming for in creating works of art.

2.2: THE BRAIN

2.2.1: The basic structure of the human brain

A basic nervous system exists in all animals (fig. 17). As a result of the process of evolution, the human brain, in comparison to other animals, is exceptionally large in relation to the size of the body (while an elephant brain is vast, it is smaller in comparison to its body). The human brain is also unusually complex, with many folds. The term ‘brain’ refers to everything contained in the skull cavity (fig. 18). With the spinal cord it constitutes the central nervous system. The cerebral cortex is the wrinkled grey outer layer of the brain. It has two symmetrical halves called hemispheres that are usually divided into four main lobes (or cortices): the occipital, parietal, temporal and frontal lobes. It consists of folded tissue where the bumps are called gyri (singular gyrus) and the cracks are called sulci (singular sulcus). The centre of the brain is called the insular cortex and includes the limbic system (fig. 19). It is concerned with human emotion and basic functions like thirst, hunger, sleep and sex drive. The cerebellum is the rear part of the brain and serves to control muscular activity and therefore, balance.¹²⁹

There are around 80-100 billion neurons in the human brain, supported by another 100 billion glial cells that insulate the neurons and so support their activity. There are several types of neurons and an average neuron has around one thousand synaptic connections to other neurons. Signals come in through dendrites and are sent on through an axon. Communication also involves several types of neurotransmitters (chemicals like hormones) that have different effects on the neurons.¹³⁰

2.2.2: Neural plasticity

The ‘neural plasticity’ term describes changes that occur in the connectivity of neural structures. Research in this area often focuses on the development of children’s brains and the loss of brain functions as a result of disease or damage (Alzheimer’s disease, for example), with the objective to devise remedial and enrichment programs. The aim of such programs is to develop new neural connections and thereby new skills, and also to

¹²⁹ David Amaral, ‘The Anatomical Organisation of the Central Nervous System’, Kandel, Schwartz, and Jessell (eds.), 317-36.

¹³⁰ Amaral, ‘The Central Nervous System’, 317-36.

make existing neural networks compensate for loss of brain function (due to brain damage or deterioration) through developing lost skills in the areas of the brain that are still functioning. Research is also aimed at finding ‘windows of opportunities’ and critical periods in which neural plasticity of different parts of the brain is more efficient.¹³¹

While the human brain is more malleable during infancy and childhood, neural plasticity occurs continually throughout life. Firstly, the brain cell structure changes as a result of external input through the senses. Secondly, it changes after brain injury, when neighbouring areas ‘take on’ functions of the damaged area. The difference in the degree of plasticity in children and adults is substantial and the rate of plasticity decreases with age.¹³²

‘Neural plasticity’ denotes different types of neural changes in the brain. New neuron growth which is a well-studied phenomenon in babies (fig. 20) is now believed to be possible in adults as well.¹³³ Axon growth happens predominantly in the neonatal period. The neuron developments in the early stages after birth occur as a result of trial and error. The connections are formed constantly and easily; however, those that are used often remain, whereas the majority disappear from lack of use.¹³⁴ This is crucial as it explains how changes in inputs can change and alter neural connections and so modify the equipment for perception. All senses are dependent on new input as well as on feedback from the rest of the brain.

Plasticity often depends on the growth of dendrites. The dendrites are the short branches that lead from the neuron body (fig. 21). The dendritic spines are the growth from the dendrite which connects to the axon (one longer branch leading from the neuron body) of another neuron at the synapse (the connection point). As the dendrites grow, the dendritic spines decrease and the synapses are pruned; those that are needed are developed more strongly and those that are not are culled. The term neural plasticity denotes both the decrease and the increase. Both are important for an efficiently working brain.¹³⁵

Furthermore, brain function is dependent on the neurons connecting with one another and sending signals from one to the next, something which happens at the

¹³¹ Peter Huttenlocher, *Neural Plasticity: The Effects of Environment on the Development of the Cerebral Cortex*, (London: Harvard University Press, 2002), 1-8.

¹³² Huttenlocher, *Neural Plasticity*, 1-8.

¹³³ Huttenlocher, *Neural Plasticity*, 22-24.

¹³⁴ Huttenlocher, *Neural Plasticity*, 28-9.

¹³⁵ Huttenlocher, *Neural Plasticity*, 24-8.

synapses. Synaptic connections are developed at a high rate within the first year of life. This action is tempered by the fact that a longer process of elimination (of synaptic connections) is then started, one which does not stabilise until the late teens. However, the structure of the brain is not set and constantly changes even after this point. One of the main changes is the strengthening and weakening of connections. Synapses function through getting excitatory and inhibitory signals, which means that a randomly connected synapse may be strengthened with more excitatory input or diminished if inhibited. Again both the strengthening and the weakening are important for effective brain function.¹³⁶

In animal brains, from insects to humans, experience-related plasticity is common. Whereas the structure of the human cortex and the organisation of neurons into columns are very similar to other mammal brains, the human brain differs in the amount of plasticity possible after birth. In rats plasticity has been observed as a result of training. Visual tasks result in changes to the visual cortex, motor tasks in the motor cortex and enriched environments lead to both growth of dendrites and dendritic spines (the spines growing from the dendrite) in both sensory areas and motor areas.¹³⁷ Tests also show that rats which have been brought up in enriched environments are better at a variety of cognitive tasks. The opposite is true for those rats brought up in an impoverished environment, in seclusion from other rats.¹³⁸

For humans it is more difficult to make the experiments which would allow such general statements. For this reason, very specific skills have become the focus of experiments designed to understand the effects of neural plasticity in human behaviour. Musicians, for example, have been shown to have increased neural growth in motor and auditory areas of the brain. This is most likely due to extensive training in their field. In the experiments the test subjects ranged from non-musicians, to amateur musicians to professional musicians. The tests showed that neural growth was directly related to the levels of expertise of the test subject.¹³⁹ Interestingly, tests on pianists have also shown that previous expertise in the field followed by further periods of learning resulted in

¹³⁶ Huttenlocher, *Neural Plasticity*, 37-61.

¹³⁷ Bryan Kolb, Jan Cioe and Wendy Comeau, 'Contrasting Effects of Motor and Visual Spatial Learning Tasks on Dendritic Arborization and Spine Density in Rats', *Neurobiology of Learning and Memory*, 90, (2008), 295-300.

¹³⁸ Charles Nelson, 'Neural Plasticity and Human Development', *Current Directions in Psychological Science*, 8/2, (1999), 42-5.

¹³⁹ Christian Gaser and Gottfried Schlaug, 'Brain Structures Differ between Musicians and Non-Musicians', *The Journal of Neuroscience*, (Oct. 2003), 9240-5.

increased plasticity. This means that if a test subject was used to learning new skills as a piano player, his or her neural networks would be more easily reconfigured to accommodate similar new skills.¹⁴⁰ For an art historian, this ‘contextual brain’ means that it may be possible to predict a response to particular features from knowing what types of input, like passive experiences, training and learning, would have been predominant in a particular time and place. The skills discussed by Baxandall and the cultural contexts used by Pamela Jones would be a part of this process. Now, however, the new neuroscientific knowledge allows the art historian to be more precise. For example, Jones has not been able to make much of the connection between the viewer (trained in spiritual exercises) and the imagery, as the nature of the link cannot be explored by her methods. By contrast, the connections between movement, empathetic viewer response and training in empathy through religious exercises can now be analysed and explained in detail with the knowledge of how the ‘contextual brain’ is created through various types of input.

2.2.3: The neurobiology of vision

Most of the input from the world in a human brain comes from the eyes making sight the most important human sense. The visual networks include the eyes, the visual pathways from the eyes to various parts of the brain and the occipital, or, as it is also called, visual cortex (at the back of the brain), where most of the visual input is processed (fig. 22). The brain constructs the world from the information it gets from the eyes, but also from input originating from other senses and from other parts of the brain. This means that the way in which we perceive the world is defined both by the brain's inherent structure, as well as through experience.¹⁴¹

While the information input is to some extent structured by the eye, most visual processing happens in the visual cortex. An example of this is the inversion of the retinal image. Light enters the eye and is focused through the cornea (the outer layer of the eye) and the lens before it hits the retina at the back of the eye (fig. 23). The visual field, the image of the world, is presented on the retina upside down. It is later processing in the brain which turns it the right way up. This process can be understood

¹⁴⁰ Patrick Ragert et al., ‘Superior Tactile Performance and Learning in Professional Pianists: Evidence for Meta-Plasticity in Musicians’, *European Journal of Neuroscience*, 19, (2004), 473-8.

¹⁴¹ Eric Kandel and Robert Wurtz, ‘Constructing the Visual Image’, in Kandel, Schwartz, and Jessell (eds.), 492-506.

by adding another lens in front of the eye which turns the retinal image itself the right way up. At first the brain then presents the world upside down but soon starts reorganising the image and after a number of days it is experienced normally. When the lens is removed there is another reorganisation. In all cases the brain presents the world the right way up. In each case the change depends on neural plasticity.¹⁴²

At the retina the light is transformed into electrical signals that are sent through the optic nerve to the other areas of the brain. The fovea is the central part of the retina. At all other points of the retina the light has to pass through clear cells; however, at the fovea the cells are shifted towards the sides. Thus, this part of the retina is responsible for the clearest image at the centre of the visual field, which is whatever the eye is focused on. The cells in the eye mainly register contrasts in light. This is transformed to electrical signals in cells that are called photoreceptors. There are two types of photoreceptors, called rods and cones. There are many more rods than cones. Rods are sensitive to very little light and pick up features like outlines and are therefore crucial for seeing in dim light. Cones on the other hand respond to colour, or more precisely, to different wavelengths of light.¹⁴³ There are three different types of cone (with differing pigments) responding to three different wavelengths of light, which we know as the colours red, green and blue. There are significantly fewer ‘blue’ cells.¹⁴⁴

The rods and cones are connected to inter-neurons which link to ganglion cells, neurons whose projections stretch far into the cortex. The optic chiasm is the point in the brain at which the optic nerves from each eye cross so that the visual fields of both eyes are represented in both the left and the right optic tracts stretching back to the left and the right side of the brain. This allows the right sides of the retinas (left side of the visual field) to be processed in the right hemisphere and vice versa (fig. 24).¹⁴⁵

The two re-formed optic tracts extend chiefly to three areas; the pretectum, the superior colliculus and the lateral geniculate nucleus (fig. 22). The first two govern eye and pupil movement. Even at this basic level the superior colliculus has input not only from the retina, but also from the visual cortex and other parts of the brain, in order to direct the eye not only in the direction of visual stimuli but also sound, touch and smell. It governs the so-called saccadic movement of the eye, in which the focus of vision

¹⁴² Marc Tessier-Lavigne, ‘Visual Processing by the Retina’, in Kandel, Schwartz, and Jessell (eds.), 507-22.

¹⁴³ Tessier-Lavigne, ‘Visual Processing’, 507-22.

¹⁴⁴ Kolb and Whishaw, *Brain and Behaviour*, 276-317.

¹⁴⁵ Robert Wurtz and Eric Kandel, ‘Central Visual Pathways’, in Kandel, Schwartz, and Jessell (eds.) 523-5.

skips quickly from one point to another. The immediate connection between the eye and the superior colliculus speeds up the process of attention so that new visual elements in the surroundings can be addressed and dealt with quickly. Both these functions are reflexes, and happen automatically.¹⁴⁶

The lateral geniculate nucleus receives ninety percent of the output from the optic tracts. Half of its mass deals with information from the fovea and the area just around it. The whole visual system (both the eyes and the brain) is thus focused mainly on a very small area of the visual field; the area on which the eye focuses (rather than the periphery). The larger part of the visual field, that is the light that hits the areas surrounding the fovea, thus gets less attention and is processed in less detail. From the lateral geniculate nucleus the nerves stretch to the visual cortex.¹⁴⁷

In the visual cortex there are several areas (fig. 25). One of these is the primary visual cortex, or area V1, a section around the calcarine fissure; a deep fold in the brain matter. The lower half of the visual field is represented above and the upper half below the calcarine fissure. As in the lateral geniculate nucleus, fifty percent of area V1 deals with information from the fovea and its immediate surrounds and it is divided into six layers (fig. 26).¹⁴⁸

The cells in these layers respond to both complex and simple stimuli. The cells are organised in two-millimetre deep columns that process information about one specific area of the visual field. Layer 4C, where a majority of the input from the lateral geniculate nucleus arrives, has cells that respond to simple stimuli. The simple cells respond to line orientation. Several cells in one column represent the same area of the visual field, with each cell responding to a particular line orientation. The group of cells can thus respond to any line orientation in their part of the visual field (fig. 27).

Amongst the columns are also ‘blobs’, especially prominent in layer two and three of area V1. The blobs contain cells that specifically react to colour stimuli. The complex cells cover a larger area of the visual field and pick up information on, for example, movement and changes in the area. The complex cells have input from several simple cells. The eye, the visual pathways, the lateral geniculate nucleus and V1 all tend towards a favouritism of lines. This is due to the information that can be gained from this feature alone. Surfaces hold less information than outlines and recognition of

¹⁴⁶ Wurtz and Kandel, ‘Central Visual Pathways’, 526-8.

¹⁴⁷ Wurtz and Kandel, ‘Central Visual Pathways’, 528-31.

¹⁴⁸ Wurtz and Kandel, ‘Central Visual Pathways’, 532.

objects and perception of movement depend largely on the borders, shape and form of an object.¹⁴⁹

There are two major pathways out from area V1: the lower ventral, or so-called, ‘what’ stream and the higher dorsal, or so-called, ‘how’ stream (fig. 28). The ventral stream is mainly concerned with object perception and the dorsal stream with motion perception, however, both streams have a series of different functions.¹⁵⁰ The ventral stream reaches to areas of the temporal cortex (the sides of the brain) and the dorsal stream has input in the parietal cortex (the top of the brain).¹⁵¹

2.2.4: The dorsal stream and seeing movement

An understanding of how movement is processed in the brain is particularly important for an analysis of how it is seen and experienced in Caravaggio’s paintings. Seen movement is processed in different stages throughout the visual networks. The dorsal stream leads to motion perception areas in the parietal cortex. MT; the medial temporal area (fig. 29) is particularly important. This area has cells that are direction selective, for example, there are neurons that respond only to vertical downward movement. It is connected to several other areas of the brain and is close spatially to the somatosensory area (fig. 30), which deals with touch, and the motor area, which specialises in one’s own body movements (fig. 31). These two areas of touch and movement are next to each other in the brain and look very similar in structure. This suggests that seen movement is closely connected to one’s own movement. For example, it would be useful in catching a ball or running after something.¹⁵²

It is crucial to understand this neuroscientific account of how seen actual movement is processed. This is because implied movement, for example, the movement of a character in a painting, is treated in the same area of the brain as actual movement. In area MT, where the direction-selective neurons are situated, there are also neurons which respond to implied movement in static images. In experiments, these neurons are activated, not only by pictures of athletes in action, but also by pictures of objects that might move such as doors. It has been suggested that these neurons are important in

¹⁴⁹ Wurtz and Kandel, ‘Central Visual Pathways’, 533-6.

¹⁵⁰ Kolb and Whishaw, *Brain and Behaviour*, 290-4.

¹⁵¹ Wurtz and Kandel, ‘Central Visual Pathways’, 548-9.

¹⁵² Robert Wurtz and Eric Kandel, ‘Perception of Motion, Depth and Form’, in Kandel, Schwartz and Jessell (eds.), 548-71.

anticipating the next step, or outcome, of a movement. This area is also activated when a human being imagines a movement or is presented with an illusion that appears to involve movement.¹⁵³ It would thus most likely also be activated by paintings in which movements of different types are prominent. The ratio of how much of a response is solicited is so far inconclusive. It appears, however, from the test results that even a picture of a man holding a glass activates this area. Thus some of the case studies used by Shearman to substantiate his claims for the ‘happening’ work of art, for example portraits of men writing, would have this effect even though they are comparatively static.¹⁵⁴ This neurological response, therefore, is a crucial component of phenomenological experience, not only of Caravaggio’s action-packed images such as *Judith Beheading Holofernes* but of many other works. For example, the experience of the musician tuning his lute in *The Musicians* (fig. 32) or of David holding up Goliath’s head (*David and Goliath*, fig. 33) would also elicit this same brain function. This neuroscientific data validates the discussion of movement in painting and explains how sight gives substance to and responds to the movement of the image. This neuroscientific material can also be employed to corroborate claims relating to the mirror neuron response and underlies empathetic engagement to still images.

2.2.5: Mirror neurons

One reason why the movement areas of the brain are particularly important throughout this thesis is because they contain some of the ‘mirror neurons’ that are integral to empathy. Mirror neurons were first found in area F5 in the macaque monkey brain (fig. 34). Area F5 is a part of the macaque’s premotor cortex and shows activity when the monkey performs as well as sees different movements. These neurons respond particularly strongly to different types of hand and mouth movements, such as grasping an object (like food) with either a hand or the mouth, precision tasks of picking something up with the fingers and tearing or breaking something with the hands. The neurons that respond to hand movement are thus active especially in the performance of goal-oriented movements, such as grasping, manipulating, tearing and holding. Mirror neurons constitute roughly one third of the neurons in this area. There are two different

¹⁵³ Zoe Kourtzi and Nancy Kanwisher, ‘Activation in Human MT/MST by Static Images with Implied Motion’, *Journal of Cognitive Neuroscience*, 12/1, (2000), 48-55. See also Guy Orban and Wim Vanduffel, ‘Functional Mapping of the Motion Regions’, in Leo Chalupa and John Werner eds., *The Visual Neurosciences*, vol. 2, (Cambridge, Mass.: MIT, 2004), 1229-46.

¹⁵⁴ Shearman, *Only Connect...*, for example see Chapter 1 and 108-48 especially 130.

types. The first type responds to graspable objects (for example a peanut), aiding goal-directed action (for example: the monkey picks up a peanut). The second responds to the seen movement of another individual (when the monkey sees another monkey picking up a peanut fig. 35).¹⁵⁵ This type is particularly important as these neurons provide a connection between the observing individual and the observed.

There are differences between how mirror neurons can be examined in monkeys and humans due to the ethical issues involved. Rizzolatti and his team, who observed the mirror neurons in macaque monkey brains, were free to make invasive tests on single neurons. The neuron was monitored while the monkey grasped objects and also while seeing the researchers grasp objects in different ways.¹⁵⁶ In humans these very precise tests are unacceptable and instead recourse has to be had to non-invasive scanning techniques. These do, however, reveal that clusters of neurons seem to behave similarly in the human brain. These have been studied through positron emission tomography (PET). It is now clear that several movement areas of the human brain have neurons that respond to visual stimuli as well as execution of movements. There is evidence to suggest that especially meaningful actions, such as gestures, trigger mirror response in Broca's area in the inferoparietal lobe (fig. 36). Broca's area is known as important for the production of human language and is close in proximity to the motor cortex.¹⁵⁷ Because area F5 in monkeys corresponds to Broca's area in humans, some neuroscientists believe that these neurons could be the basis for different types of communication (both gestural and verbal).¹⁵⁸

Whereas the immediate function of the neurons is well understood, the implications of this function for the understanding of the relationship between the viewer and the seen are debated. Researchers also postulate that there are other 'mirror neuron systems' elsewhere in the brain and that these function in similar ways. Rizzolatti and his team call the potentially related behaviours 'resonance behaviours' and categorise them into two groups. The first involves a seen movement being automatically repeated by the viewer. It can be observed in many species, and is perhaps most notable in bird flocks where individual birds move together; the movements are instantaneous and complex, even without communication. In human babies this

¹⁵⁵ See Gallesse 'Shared Manifold', 33-50 and, Giovanni Buccino, Ferdinand Binkofski and Lucia Riggio, 'The Mirror Neuron System and Action Recognition', *Brain and Language*, (Aug. 2003), 1-7.

¹⁵⁶ Rizzolatti et al., 'Resonance Behaviours and Mirror Neurons', *Archives Italiennes de Biologie*, 137, (1999), 85-100.

¹⁵⁷ Rizzolatti, 'Resonance Behaviours', 85-100.

¹⁵⁸ Rizzolatti, 'Language', 188-94.

automatic imitation, in this case of the adult's movement, is generally believed to be a crucial part of the learning process. This feature could also explain, for example, the tendency to yawn when seeing someone else yawn, to adopt the pose of someone while conversing, or other contagious phenomena such as smiling or laughing. The second category is apparent in the crucial human capacity for delayed imitation, where a baby can see something and then repeat it after a considerable time delay. This second 'resonance behaviour' is a wholly internal repetition of the seen movement and could at the most basic level explain action understanding. That the mirror neurons are responsible for action understanding is only the most basic explanation of their function.¹⁵⁹

There are further possibilities. As mentioned above, Rizzolatti has shown that F5 in monkeys has developed into Broca's area in humans, an area most commonly connected with speech. The discovery of a mirror system in this area suggests that there is a link between action recognition and the ability to communicate through speech. Rizzolatti suggests that speech originated in a capacity that allowed humans to draw connections between the actions of someone else to the goals of those actions, most likely through communicative gesture.¹⁶⁰ Vittorio Gallese, one of the members in Rizzolatti's team, proposes a conceptual tool that he calls the 'shared manifold hypothesis, built on neuroscientific results. He argues that mirror neurons can help explain how human beings understand each other, suggesting that this understanding is based on much more than strictly linguistic ability or superior mental ability (in comparison to monkeys, for example). As the mirror neurons internalise the movements of a seen individual, they provide a basic, instantaneous and natural connection between the viewer and the viewed.¹⁶¹ This connection could provide a basis for complex empathetic responses, since the mirror neuron function actually enables the human to 'walk in someone else's shoes'.

2.2.6: Facial expressions

Research on facial expressions is particularly important here as such expressions involve emotions. The researcher most referred to is the anthropologist Per Ekman.

¹⁵⁹ Rizzolatti, 'Resonance Behaviours', 85-100.

¹⁶⁰ Rizzolatti, 'Language', 188-94.

¹⁶¹ Gallese, 'Shared Manifold', 33-50.

According to Ekman's theory the basic emotions are: joy, distress, anger, fear, surprise and disgust (fig. 37). His experiments showed that to a great extent emotional response and the understanding of emotional states are universal. (For the purposes of experiment he had to simplify the expressions and they are exaggerated in the images.) Not only did the New Guineans understand the facial expressions of the Americans; the Americans also understood the expressions of the New Guineans. The researchers gave the subjects scenarios that would induce different emotional states, for example fear or being chased by a big animal, joy or seeing a friend after a long time apart or distress upon hearing of the death of a close relative. These were then linked to photographs of people displaying the correlated emotional expressions. The researchers also asked the test-subjects to make emotional expressions that suited the different scenarios. It should be noted that Ekman managed to track several other states in between the six basic categories. The conclusion he drew was that, even though misunderstandings of facial expressions occur regularly, the six basic categories are common to all humans and therefore function as a basic yet effective means of communication.¹⁶²

The research by Ekman has been taken further in the sciences. Patients with Moebius Syndrome are unable to move the muscles in the face. Jonathan Cole has studied the impact of this type of impairment on emotional understanding and empathy. He came to the conclusion that emotional expressions do not only allow humans to understand what state another human is in but also to empathise with that human being, that is to share his or her feelings. He suggested that facial expressions are crucial for empathy and he found that the misunderstanding of emotion was one of the dominant problems for people suffering from Moebius Syndrome. The emotional state of a person with Moebius is simply not instantaneously and intuitively clear to other people, something that impacted on their empathy levels. In some cases Moebius patients also have difficulty understanding the emotions of others as they lack internal understanding of the facial movements connected to emotions. Interestingly, many of these patients find that their ability to experience emotion is also impaired. They describe their emotions as diluted and they are often not able to experience feelings in the same way and to the same degree as the people around them. One patient stated: 'I sort of think happy or think sad, not really saying or recognising actually feeling happy or feeling

¹⁶² Evans, *Emotion*, 4-6, 15 and 106. See also Ekman and Rosenberg (eds.), *What the Face Reveals*.

sad.¹⁶³ Cole's research matches psychological studies on the less than empathetic reactions unusual faces evoke in beholders. There is also evidence that the reconstruction of deformed faces, teaching the blind how to move their eyes in way that resembles a seeing person and teaching those with emotional neural impairments to construct emotional expressions, makes it easier for these individuals to communicate and engage socially.¹⁶⁴

Neuroscientific evidence supports these psychological findings. Experiments have shown that the same brain regions are activated during the observation of emotional expression and when imitating those expressions. This is comparable to the mirror function in the inferoparietal cortex. However, neuroscientists realised that in order to account for empathetic responses it is necessary for humans to have a connection between emotional states and emotional behaviours; that the emotional state of joy can be connected to smiling and seeing a smile.¹⁶⁵ The relations between facial expressions, the understanding of facial expressions through a 'mirror system' and the experience of emotion is not easily summarised as the different emotions have different pathways and are processed in different areas of the limbic system (fig. 19). Furthermore the connections between the limbic system and the rest of the cortex are infinitely complex. There is, however, an overarching principle, which recurs in the scientific evidence and is, as noted at the beginning, best understood in research on the emotional expressions of disgust. It seems that the same area of the insular cortex responds both when the person feels disgust and when (s)he sees someone else's facial expression of disgust. So facial expressions, as seen and as performed, are connected, the actual experience of the emotion being processed by the same area.¹⁶⁶ This helps us to understand the emotional content of an empathetic experience of art, especially in the case of the depicted facial expressions of a character.

2.2.7: Pain processing

Neuronal systems, that function like mirror neurons, have also been found as a component of the brain's pain-processing. This is one of the most forceful types of

¹⁶³ Jonathan Cole, 'Empathy Needs a Face', *Journal of Consciousness Studies*, 8/5-7, (2001), 62.

¹⁶⁴ Cole, 'Empathy', 51-68.

¹⁶⁵ Laurie Carr et al., 'Neural Mechanisms of Empathy in Humans: A Relay from Neural Systems for Imitation to Limbic Areas', *Proceedings of the National Academy of Sciences*, 100/9, (2003), 5497-5502.

¹⁶⁶ Wicker, 'Disgusted in My Insula', 655-664.

empathetic experience and this function explains why we can feel the need to look away from gruesome medical scenes or horror movie massacres.

As in the case with emotions there are several different regions of the brain that process pain. The anterior cingulate cortex, the anterior insula and the cerebellum are all well known by neuroscientists as important centres for pain processing. The cingulate cortex in particular is associated with emotion and also basic drives like thirst and hunger (fig. 19). A team of researchers has tested how people react to seeing others in painful situations and found that the anterior cingulate cortex was active in these cases. They concluded that there is a commonality between the actual experience of pain and the perception of pain of another human being. This ‘mirroring’ in pain perception constitutes another basic link between human beings, and this led the team of researchers to understand their findings as a type of empathy, present in the vast majority of human brains and concerned specifically with pain processing. The experiment consisted of test-subjects viewing still imagery of hands and feet being cut or in the danger of being cut. The anterior insula was particularly active as the test subjects looked at the images and it showed very similar activity when subjects were in actual pain.¹⁶⁷

The results posed one critical problem; the absence of mirror neuron activity in the inferoparietal lobe. This could be explained, however, by the fact that the imagery did not show an agent and there was none of the directional action which triggers inferoparietal mirror neuron response. The protagonist was simply a tool and not, for example, a fist. The significant body information was focused on passive receiving and not active doing, for example grasping or tearing. The imagery showed a subject who was being acted upon; the hand was being cut and there was no hand which performed the cutting. This particular feature, of active versus passive movement, shows that the pain processing features are complementary to but not analogous to the mirror neurons in the pre-motor cortex.

It is also significant here that the images in the experiment did have an effect on area MT, the area that responds to suggested movement. The researchers believed this to be due to the incorporation of objects that had to move to hurt, like a door closing on a foot or a knife cutting through the skin of the hand (fig. 38). There is a movement suggested either by the object moving toward the body or the body toward the object.

¹⁶⁷ Jackson, Meltzoff and Decety, ‘Pain of Others’, 771-9.

There was also activation of the occipito-temporal cortex, specifically important as there are areas around the superior temporal sulcus that respond to the sight of specific body parts or the body as a whole entity.¹⁶⁸ Both mirror neurons and the combined response system for seen and experienced movement establish a basic connection between the viewer and the characters. The argument would not be complete without both mirror neuron systems responding to the active grabbing, holding and tearing and the passive receiving of pain. This is because of the general inclusion of both agent and subject in violent imagery. The logic of this is that when we see, for example, Caravaggio's depiction of Holofernes' throat being sliced, there is a part of our brain that responds in a very similar way as if we were in the same danger, whilst the mirror neurons in the inferoparietal lobe make it possible for the spectator to connect with Judith and her use of a sword.

Having established a link between experiencing pain and seeing someone else's pain the researchers focused on how humans respond differently to experienced pain and seen pain. There is obviously no complete self/other merging, that is, we do not feel the same pain as is seen, we do not suffer to the same extent as the person in pain. The involvement of other areas of the brain makes the distinction between the actual experience of pain and the seen experience of pain in others instantaneous. The researchers emphasised this point as this provides an 'as if' mode in which humans can react to seen pain and understand it, but not actually feel that pain. This is of evolutionary advantage. They focused on the possibility that humans benefit from the mirror function in the case of pain as it enables them to learn from others' mistakes. The evolutionary value lies in the actions that are taken after the pain occurs. In the case of felt pain the outcome might be to escape or protect oneself from pain, like withdrawing the hand from something too hot. In the case of seen pain, empathy acts as a vehicle for our own and/or the others' survival. The reactions might be the same as in felt pain, in that the observer is cautioned and can escape or protect him/herself. Alternatively it could increase the survival potential of the other as the action could be assisting the person that is seen to be in pain. The survival mechanisms of fighting or fleeing are evolutionarily advantageous for the species. There is also an obvious evolutionary advantage to there not being a complete merging of experience in the response to the

¹⁶⁸ Philip Jackson, et al., 'Empathy Examined through the Neural Mechanisms Involved in Imagining how I Feel versus how you Feel Pain', *Neuropsychologia*, 44, (2006), 752-761.

sight of an injured person, which might lead to the judgement to help, to flee from danger or to face it and fight being impaired.¹⁶⁹ It is thus evolutionarily advantageous that human beings to react strongly to imagery like *Judith Beheading Holofernes*.

2.2.8: Neural plasticity of mirror neurons

Mirror neuron systems are susceptible to neural plasticity. This is crucial in demonstrating how people in early modern Rome were particularly susceptible to Caravaggio's depictions of movement. It is also crucial as the mirror neurons then can be used as a part of the tool-kit suggested by the concept of the 'contextual brain'. While Onians has shown how the human visual system is flexible and adjusts to a particular environment, I make similar claims for people's empathetic ability.

Calvo-Merino and his collaborators have found neural plasticity in the case of dance movements. In the experiment, ballet dancers, capoeira dancers and non-experts watched ballet. The ballet dancers' brain responded more than the others. The response was particularly strong in the premotor cortex, but also in the intraparietal sulcus, the right superior parietal lobe and the left posterior superior temporal sulcus. Because they were familiar with the movements through constant training, their brains could more easily process the seen material. The evidence suggests that human beings understand movement through simulation. The capoeira dancers and non-experts did not have these particular movements in their own repertoire of movements.

An additional discovery which is relevant to this section of the thesis is something the researchers did not count on. It might be expected that there would be differences in the responses of male and the female dancers with each being more susceptible to the movements they were most used to performing. What the researchers found however, was that the brains of both male and female dancers were equally capable of dealing with both their own movements and with those of the opposite sex. The conclusion was that not only does the making of one's own movements count, but also the repeated seeing of movements of others.¹⁷⁰ The training, both by making movements and by watching them had impacted on the connections in the dancers' brains. One interesting avenue for further research would be to test coaches and trainers

¹⁶⁹ Jackson, 'Empathy Examined', 771-9.

¹⁷⁰ Beatriz Calvo-Merino et al., 'Action Observation and Acquired Motor Skills: An fMRI Study with Expert Dancers', *Cerebral Cortex*, 15, (2005), 1243-49.

who know the visual components of dance movements even though they may not perform themselves.

Neural plasticity is most frequently studied in professionals such as dancers and musicians since the long-term impact of training is the clearest in activities involving specific repetitions. Music is also an interesting area, in this respect, as it can provide information about the relation between seeing, doing and hearing. Experiments on professional pianists versus non-practitioners showed remarkable differences in brain function. The test-subjects were first played short sequences of piano music and were then told to press chosen (silent) keys on a piano keyboard. The scientists found that the musicians had developed a specific type of network for these tasks, one that did not exist in the non-practitioners' brains. This shows that piano training builds networks that combine both motor and auditory areas of the brain, but that without training this is not developed. Interestingly the areas activated in the brains of the musicians were Broca's area and Wernicke's area, both connected to communication. This suggests that the human mirror neurons are essential to the process of combining the seen, the heard and the done for the more active understanding of others. For the researchers it was particularly interesting to confirm the existence of an auditory mirror system in this area, one that could be further developed through training.¹⁷¹

These two examples have shown that mirror neuron areas are susceptible to neural plasticity. However, these have not mentioned empathetic ability or emotional engagement, which is the crucial factor for the argument in this thesis. There is then a need for more evidence to support the theory that empathetic ability is related to this neural plasticity of the mirror neuron systems.

Scientists have found that autism can cause an inability to empathise and communicate. Autism spectrum disorder has been related to a thinning of the grey matter in the mirror neuron systems, which is thought to be the cause of the social inabilities of the sufferers. The scientists hypothesise that this thinning; a lack of neural connections, leads to decreased empathetic ability. This would also suggest that increased neural connections might lead to increased empathetic ability. Interestingly the emotional component of empathy is highlighted in the research as neuron deficits were found in many areas, including the STS (superior temporal sulcus) which deals with eye concentration, the superior parietal lobule, which is involved in imitation, and

¹⁷¹ Marc Bangert, et al. 'Shared networks for auditory and motor processing in professional pianists: Evidence from fMRI conjunction', *Neuroimage*, 30, (2006), 917-926.

crucially the premotor cortex and the somatosensory cortex, particularly in the areas dealing with faces.¹⁷²

Mirror neurons and neurons that behave like mirror neurons in various areas of the brain are crucial for human beings to experience emotion and empathy. That they are susceptible to plasticity means that they are malleable and the structures are a result of genetic, environmental and other contextual factors.

¹⁷² Nouchine Hadjikhani et al., ‘Anatomical Differences in the Mirror Neuron System and Social Cognition Network of Autism’, *Cerebral Cortex*, 16, (2006), 1276-82.

2.3: THE CONTEXT: ROME AROUND 1600

2.3.1: Milan

It may seem contradictory to begin a chapter on Rome with a section on Milan, but it is necessary to recognise that before Caravaggio began catering for the varied audience in Rome, he had grown up and been trained as an artist in Milan. His experiences in Milan would have shaped his neural networks and it is worth noting that Milan and Rome were very different cities. Milan is important as it had a great impact on his artistic career and many of the features that are generally associated with Caravaggio's paintings have long been claimed to be Lombard in origin, such as his brand of realism, his use of shadows and his interest in genre painting.

Milan was under Spanish rule for most of the sixteenth century. Ludovico Sforza abandoned Milan in 1499 as the French king Louis XII laid claim to it. Sforza, the patron who brought Leonardo da Vinci to the city, was later captured by the French. Naples, Venice and the papacy backed the French king in his endeavours. The Sforza formed an alliance with the Habsburgs and efforts to expel the French from the Italian peninsula saw the Sforza reinstated for short periods during the beginning of the sixteenth century; Charles V recaptured Milan in 1521 with Spanish troops. In 1559 Spanish rule was officially recognised in the treaty of Cateau-Cambrésis. However, the Spanish were not the only power in Milan and in the second half of the century and the Archbishop Carlo Borromeo (1538-1584), would continuously clash with Philip II and the Spanish authorities.¹⁷³

In 1571, the year in which Caravaggio was born, Milan had already seen its share of war, plague and famine. The winter of that year was particularly harsh and many people, both in Milan and in the countryside, died of malnourishment. The city was dominated by the religious fervour of Carlo Borromeo, future saint and strict reformer in the Council of Trent. After 1560 he had changed his way of life as a consequence of his brother's death. Instead of the entourage and luxury he had enjoyed while in living at the papal court in Rome, he now led a more ascetic life. In 1576 there were celebrations for Don John of Austria, whose entry into Milan drew large amounts of people to the city. His entry was followed by the first signs of the plague. His swift departure was followed by many of the noble families. In contrast, Archbishop Carlo

¹⁷³ Gregory Hanlon, *Early Modern Italy, 1550-1800*, (London: Macmillan Press, 2000), 71-4.

Borromeo decided to stay in the city. He tended to the poor and the sick, visited the screaming sufferers in the leper house in the city and travelled to affected areas in the surrounding country side. In this way he turned Milan into a centre for piety, prayer and devotion. The plague, which brought great misery to the people of Milan, formed Carlo Borromeo as a living saint whose approach was both practical and theatrical. Eyewitnesses described his part in a procession, walking without shoes, with bleeding feet, a purple mantle with a hood and a rope around his neck, holding the up Holy Nail.¹⁷⁴

The plague had an impact on most of the Milanese, and Caravaggio was not an exception. In 1577 Caravaggio's paternal uncle was the first to die. Caravaggio's family moved out of the city and back to their home in Caravaggio. His father and grandfather died on the same night in October that year, and his mother was left to take care of her four children. The young Caravaggio then decided to become a painter and was apprenticed with Simone Peterzano in Milan at some time in the 1580s. His brother Giovan Battista, who was most likely of a similar age, chose a very different route and moved towards a career within the Church. Even though it is known that he joined the Jesuit Collegio Romano in Rome, there seems to have been little or no contact between the brothers.¹⁷⁵ Mancini, one of Caravaggio's biographers, describes a meeting at which Caravaggio pretended that he did not know his brother, a priest, who had come to visit him in the house of one of his patrons, Cardinal Francesco Maria del Monte (1549-1627).¹⁷⁶

2.3.2: Population

While Milan was under Spanish rule, and the Italian peninsula was fought over by the Habsburgs Empire, Spain and France, Rome was being restored by consecutive popes to raise the image of the papacy and Rome as the centre of the Catholic world. The imperial army sacked Rome in 1527, and the year that followed was marred by plague and famine. The Sack was seen in religious terms of God's judgement of a sinful and corrupt papacy. For the rest of the sixteenth century the popes were forced to navigate

¹⁷⁴ Langdon, *Caravaggio*, 15-21, Bruno Contardi, 'Caravaggio e la Lombardia', in *Caravaggio; La Luce nella Pittura Lombarda*, (Bergamo: Electa, 2002), 23-7 and Wietse de Boer, *The Conquest of the Soul; Confession, Discipline, and Public Order in Counter-Reformation Milan*, (Leiden: Brill, 2001), 43-83.

¹⁷⁵ Langdon, *Caravaggio*, 19-21.

¹⁷⁶ Mancini, *Considerazioni*, in Hibbard, *Caravaggio*, 349.

between the French and the Spanish. At the same time they needed to reinvigorate the papacy, strengthen Catholicism (the Council of Trent was particularly important in this effort) and rebuild Rome to reflect these developments.¹⁷⁷ While the second half of the sixteenth century had been relatively calm, because of the peace between France and Spain in 1559, the end of the century saw increased French power, and with it uncertainty returned. However, by 1600 the Papal States had recovered and the city had seen both a drastic change of image and an increase in population.¹⁷⁸

In Rome itself, one of the most important distinguishing features of the city was the variety of its population. People came there from all over Europe, particularly from other cities in Italy, trying to make a living directly or indirectly from the papacy. This is an important issue when discussing the possible viewers of the widely accessible art in churches.

Around 1600 there were over 100 000 permanent inhabitants, in comparison to just around 32000 in 1530 (after the Sack and the ensuing famine and plague). The statistics of the city's population show some conditions that were specific to Rome. Firstly, sixty percent of the population was male. Secondly, over five percent of the entire population consisted of priests, monks and nuns.¹⁷⁹ Thirdly, there was an increasing population of unemployed soldiers arriving back from battles in Flanders, Hungary, Croatia and Slovenia.¹⁸⁰ Less obvious from the records, is the extent to which the city and its many churches and charitable organisations drew large crowds of beggars and other poor.¹⁸¹ In the Anno Santo there were also a great number of tourists and pilgrims.

One very visible feature of Rome and perhaps a consequence of the large population of males was the buoyant business it offered prostitutes.¹⁸² Significantly, even though many came to Rome for religious reasons, the prostitutes were considered a tourist attraction and Elisabeth Cohen even considers them a part of the visual

¹⁷⁷ For the most extensive research on sixteenth century Rome see Jean Delumeau, *Vie Economique et Sociale de Rome dans la Seconde moitié du XVI^e Siècle*, (Paris: E. De Boccard, 1957). Peter Partner, *Renaissance Rome, 1500-1559, A Portrait of a Society*, (Berkley: University of California Press, 1979), 28-46.

¹⁷⁸ Domenico Sella, *Italy in the Seventeenth Century*, (London: Longman, 1997), 9-11.

¹⁷⁹ Richard Spear, 'Scrambling for Scudi: Notes on Painters' Earnings in Early Baroque Rome', *The Art Bulletin*, 85, (2003), 310-19.

¹⁸⁰ Peter Blastenbrei, 'Violence, Arms and Criminal Justice in Papal Rome, 1560-1600', *Renaissance Studies*, 20/1, (2006), 68-87.

¹⁸¹ Langdon, *Caravaggio*, 44-6.

¹⁸² For a good overview of the visible 'public' prostitutes see Tessa Storey, *Carnal Commerce in Counter-Reformation Rome*, (Cambridge: Cambridge University Press, 2008), 116-25.

experience of Rome.¹⁸³ Caravaggio and his friends were among the many men who walked around in the areas where the prostitutes lived as a form of entertainment.¹⁸⁴ Under Clement VIII (Ippolito Aldobrandini, 1536-1605, elected in 1592), prostitutes were allowed to live in a large area of Campo Marzio beyond the small ghetto-like area, Ortaccio, ‘the bad garden’, to which earlier popes had tried unsuccessfully to confine them. Around the prostitutes also developed a community of ‘respectable’ women. Housing needs and a ready supply of customers made the prostitute areas appealing to washer women and seamstresses (and this clustering of women is an interesting feature in such a male dominated environment). Rules were instituted, which prevented the prostitutes from settling next to churches, monasteries and noble palaces and supposedly prevented them from living in the main four streets. However, Fillide Melandroni, one of Caravaggio’s most famous models, managed to set up her more prestigious business in one of these forbidden streets. The segregation which was promoted was thus not enforced in practice. This is important information as it shows the degree to which the poor and the rich, the respectable and the least accepted elements of the population largely co-existed.¹⁸⁵

One of the salient characteristics of Roman society was the contrasts created by this diverse population. The disparate groups mingled on the Roman streets and it is crucial that it was the papacy and other Church institutions that drew people to the city. The audiences for works of art in churches would have been equally varied and needs to be considered in the case of accessible Caravaggio paintings such as *The Crucifixion of St Peter* and *The Conversion of St Paul*.

2.3.3: The physical renewal of the city

The cityscape of Rome was constantly changing. The renovations of Sixtus V (Felice Peretti, 1520-90, elected in 1585) had made a great impact. For example, he added four wide and straight streets leading across Rome to S. Maria Maggiore and reconstructed the aqueduct, renamed Acqua Felice, thus providing adequate water supply for the expansion of the city. The architecture and city structure in Rome bore the traces of its history. A glorious antique past was still visible to its population. However, as pagan

¹⁸³ Elizabeth Cohen, ‘Seen and Known: Prostitutes in the Cityscape of Late-Sixteenth Century Rome’, *Renaissance Studies*, 12/3, (1998), 392-409.

¹⁸⁴ Langdon, *Caravaggio*, 131-53.

¹⁸⁵ Cohen, ‘Seen and Known’, 392-409.

remnants, the ruins and ancient buildings also became the counterpoint to the new architecture and city planning. When Antonio Tempesta (1555-1630) undertook the production of a city map (1593) his aim was to portray the modern city, rather than focus solely on the ancient monuments. Serious damage was caused in the sack of Rome in 1527, and the restructuring of the city, became a part of the Roman Catholic Reform. Modernising the Holy City visually manifested a new, reformed, and glorious papacy. More practically the city was restructured to accommodate not only a constantly growing population but also the many visitors expected for the jubilee year in 1600.¹⁸⁶ These changes to the actual structure of the city were a part of the populations' everyday experiences. 'Monuments and street vistas provided a stage set for the spectacle played out by the city's inhabitants.'¹⁸⁷ Cohen draws the common analogy between Rome and the theatre, placing the activities of both prostitutes and their spectators on what she sees as the Roman stage.¹⁸⁸

2.3.4: The papacy and its cardinals

The papacy was the driving force behind the material restructuring of the city and also the magnet at the centre of its large and multifarious population. It dominated Rome religiously, politically and economically. As a ruling body it was not particularly stable. Every time a Pope died a new one was elected by the College of Cardinals, even though it was accepted that the choice was that made by God. The Pope had a dual role as the head of the Roman Catholic Church and governing ruler of the Papal States. The papal court (one of the largest courts in Europe), the cardinals and in turn their courts were financially reliant on the papacy. This economic dependence caused uncertainty for a large part of the Roman population every time a Pope died. The Vacant See often meant increased violence and uprisings in the city.¹⁸⁹

In particular, the situation of the Cardinal Nephew was precarious, as his prominent position as the Pope's right-hand man inevitably changed with the death of his uncle. His influence and income could and often did sink precipitously. The pay of

¹⁸⁶ Luigi Spezzaferro, 'Baroque Rome: a 'Modern City'', in Peter van Kessel and Elisja Schulte (eds.), *Rome Amsterdam, Two growing Cities in Seventeenth Century Europe*, (Amsterdam: Amsterdam University Press, 1997), 2-12.

¹⁸⁷ Cohen, 'Seen and Known', 395.

¹⁸⁸ Cohen, 'Seen and Known', 392-409.

¹⁸⁹ One of the best accounts of the problems arising from a Vacant See is Laurie Nussdorfer, 'The Vacant See: Ritual and Protest in Early Modern Rome', *Sixteenth Century Journal*, 18/2, (1987), 173-189 and Langdon, *Caravaggio*, 289-90 for specifics about the death of Clement VIII.

the cardinals was not fixed. Their differing monetary situations were dependent on the Pope's favours. There were twenty-one different cardinal's courts in Rome in the early sixteenth century, and about seven percent of the adult population in Rome belonged to one of these or the papal court. The amount of courtiers was high throughout the sixteenth and seventeenth centuries. Clement VIII urged his cardinals to stay and spend money in Rome, especially before the jubilee celebrations, as the visual enhancement of the city would reflect well on the papacy. Even though living and spending money in Rome held the promise of influence and fame for the cardinal and his family, many of the less affluent complained about the high living expenses.¹⁹⁰

Beyond maintaining and augmenting the splendour of Catholic Rome, the cardinals needed to uphold their family status. Family affiliation was important, not only to the higher levels of society who intermarried for status and alliances but also for the people connected to the courts of the different families. It is possible that Caravaggio managed to set up in Rome through his father's service for a branch of the Colonna family at Caravaggio, his birthplace. The Colonna was one of the oldest and most noble families in Rome. There were both families with longstanding feudal connections in the Papal States, such as the Colonna, the Orsini and the Caetani and those who had strongholds elsewhere, such as the Medici.¹⁹¹

The spending power of the papacy had an impact on all layers of society. The people of Rome were dependent on the rich families of the cardinals and the papal court to supply wages for services rendered. The network of connections around the papacy extended from the Pope, to the cardinals, to their courts, to the people supplying wares for these courts.¹⁹²

Caravaggio worked for several cardinals and was connected to a variety of noble families. The Borghese, in particular, can be singled out as a powerful and significant force in Roman political life of the period. Cardinal Scipione Borghese (c. 1576-1633), who was one of the nephews of Pope Paul V (Camillo Borghese, 1552-1621, elected in 1605) amassed a great collection of works by Caravaggio.¹⁹³

¹⁹⁰ Gigiola Fragnito, 'Cardinals' Courts in Sixteenth-Century Rome', *The Journal of Modern History*, 65/1, (1993), 26-56.

¹⁹¹ Tracy Ehrlich, *Landscape and Identity in Early Modern Rome, Villa Culture at Frascati in the Borghese Era*, (Cambridge: Cambridge University Press, 2002), 15-27 and for details about Caravaggio's move to Rome see Langdon, *Caravaggio*, 51-76.

¹⁹² Fragnito, 'Cardinals' Courts', 26-56.

¹⁹³ Langdon, *Caravaggio*, 303-14 and 381-90.

2.3.5: The Spanish

The papacy was by far the most influential power in Rome. However, there was also a great dependence on the Spanish crown, which around 1600 exerted considerable influence in the city. The Italian lands had been ravished by wars between France and Spain in the sixteenth century. In 1600, Spain was in possession of Milan, Naples and Sicily. In Rome, the French and the Spanish coexisted and Clement VIII brought peace between the two parties in 1598. However, the presence of both large Spanish and large French factions in Rome at the time made the city instable. The Spanish crown had influence through intermarriage and alliances with the great Italian families and by this means it impacted not only on the political life of Rome but also on the economic structure of the city. It has been estimated that in 1600 up to a third of the population had direct connections with Iberia. Spain consisted of different kingdoms (for example Castille, Aragon and Portugal), however; in Rome the Spanish were recognised as a single faction. They had a presence in all layers of society and their spending fed into the Roman economy. They also held significant power within the papacy (there were several Spanish cardinals) to count as a force in papal elections.¹⁹⁴

The Spanish presence in Rome was important in religious as well as secular matters. Every year since 1579 the Spanish confraternity of the Most Holy Resurrection would organise an Easter procession. In 1622 there was a major ceremony to celebrate the canonisation of five saints. This was followed by a major procession through the city. A large crowd set out from St Peter's, crossed the Tiber and stopped at the Chiesa Nuova where St Filippo Neri's standard was left. The second stop was S. Giacomo on Piazza Navona. From there the crowd proceeded through Piazza Madama. Significantly, the procession then passed S. Luigi dei Francesi, the centre for the ceremonies for Henry IV's (1553-1610) absolution in 1595 (he converted in 1593), before continuing towards the Gesù where standards for St Ignatius and St Francis Xavier were left. The procession finally crossed the Tiber again at Ponte Sisto and placed the last standard, of St Theresa, in S. Maria della Scala in Trastevere. The procession had moved through the most densely populated areas of Rome, making a visual and spatial claim to their position in Rome.¹⁹⁵

¹⁹⁴ Thomas Dandelet, 'Spanish Conquest and Colonization at the Center of the Old World: The Spanish Nation in Rome, 1555-1625', *The Journal of Modern History*, 69/3, (1997), 479-511.

¹⁹⁵ Dandelet, 'Spanish Conquest', 479-511.

2.3.6: Patronage

Returning to the renewal of the city; visibility, as a means of promotion both for the individual and the Church, involved a major economic outlay for the important families, cardinals and courts. During the seventeenth century, the various courts turned Rome into a centre of luxury consumption, something particularly seen in the commission of architecture, sculpture and painting.¹⁹⁶ Visibility was often achieved through various types of artistic patronage.¹⁹⁷ Clement VIII in particular urged his cardinals to spend money on building and restoring churches, hospices and other landmarks in order to make Rome splendid for the Anno Santo. His personal contribution can mainly be seen in the restoration of S. Giovanni in Laterano and the crowning bronze ball and cross on the top of the dome of St Peter's.¹⁹⁸ His Cardinal Nephew (Pietro Aldobrandini, 1572-1621) restored S. Nicola in Carcere¹⁹⁹, Paolo Camillo Sfondrato (1561-1618) renovated St Cecilia²⁰⁰ and the historian Cardinal Cesare Baronio (1538-1607) oversaw the work at SS. Nereo ed Achilleo, to mention a few important examples.²⁰¹

There was an abundance of projects, religious and secular, begun in 1592 and continuing up to the 1600 jubilee. Annibale and Agostino Carracci (1557-1602) were living and working in Palazzo Farnese for Odoardo Farnese (1573-1626). Giuseppe Cesari (also called Cavaliere d'Arpino, 1568-1640) was particularly prolific with projects in Chiesa Nuova, S. Prassede, S. Luigi dei Francesi, S. Giovanni in Fonte and S. Maria in Traspontina. He was also awarded the prestigious commission for the decoration of the Sala dei Conservatori in Palazzo dei Conservatori on the Capitoline

¹⁹⁶ Renata Ago, *Il Gusto delle Cose, Una Storia degli oggetti nella Roma del Seicento*, (Rome: Donzelli, 2006), xx. For further discussions on consumerism in Early Modern Italy see Richard Goldthwaite, *Wealth and the Demand for Art in Italy, 1300-1600*, (Baltimore: The Johns Hopkins University Press, 1993), Evelyn Welch, *Shopping in the Renaissance*, (New Haven: Yale University Press, 2005) and Michelle O'Malley and Evelyn Welch (eds.), *The Material Renaissance*, (Manchester: Manchester University Press, 2007).

¹⁹⁷ For a short introduction to Counter-Reformatory patronage in sixteenth-century Italy, see Mary Hollingsworth, *Patronage in Sixteenth Century Italy*, (London: John Murray, 1994), 104-42. For a concise account of seventeenth century consumption of painting in Rome see Ago, *Il Gusto delle Cose*, 137-56.

¹⁹⁸ These are but a few examples. Morton Colp Abromson gives a catalogue of the work commissioned during the reign of Clement VIII, *Painting in Rome during the Papacy of Clement VIII (1592-1605)*, (New York: Garland Publishing, 1981).

¹⁹⁹ Abromson, *Painting in Rome*, 91-2.

²⁰⁰ Caroline Goodson, 'Material Memory: Rebuilding the Basilica of S. Cecilia in Trastevere', *Early Medieval Europe*, 15, (2007), 2-34.

²⁰¹ Alexandra Herz, 'Cardinal Cesare Baronio's Restoration of SS. Nereo ed Achilleo and S. Cesareo de' Appia', *The Art Bulletin*, 70/4, (1988), 590-620.

Hill.²⁰² The papal commission for decorations in the Sala Clementina went to the Alberti brothers, who seem to have been somewhat favoured by Clement VIII (they were also involved in his renovation project at the Lateran, mentioned above).²⁰³

In order to receive a good commission an artist needed connections and previous acclaim. An artist could begin his career in Rome through making use of family connections. Patrons would often choose to employ artists from their native cities and would often import artists and find them suitable lodgings and projects in Rome. Another option that was becoming more usual was the practice of producing paintings in advance, selling them at often low prices, in the hope of gaining patronage in the process. Through this initial introduction into a system of patronage, the artist would gain access to other patrons within the circle of acquaintances of his benefactor. Once the artist acquired a good commission, such as an altarpiece, his reputation would grow and he could start choosing his patronage more carefully. As his works reached a wider audience, through more prestigious commissions, he could even set up his own household and studio.²⁰⁴ While in Rome, neither Annibale Carracci nor Caravaggio were successful in this respect. Their situations deteriorated after leaving patron households to work independently. In comparison, Zuccaro was more successful. He owned his own palace, and even though his popularity took him across Italy and the rest of Europe, he was able to take time to decorate it himself.²⁰⁵

Zuccaro's success is notable, as artists often complained about their finances. Prices for rent and food were very high in comparison with wages. The pressure of tourism in the jubilee year, which caused shortages in necessities such as wine, bread and hotel rooms, led to price inflation. There was still money to be earned in Rome, however, and Rubens, who was not satisfied with the 140 scudi he received a year from the Duke of Mantua, decided to stay on in Rome where he could command 200 scudi for a large-scale church-painting. This figure is supported by evidence about the prices received by Zuccaro for his paintings for churches.²⁰⁶

²⁰² Abromson, *Painting in Rome*, 359-73 and Herwarth Röttgen, 'Il Cavaliere Giuseppe Cesari d'Arpino', in *Il Cavalier d'Arpino*, (Rome: De Luca Editore, 1973), 19-57.

²⁰³ Morton Abromson, 'Clement VIII's Patronage of the Brothers Alberti', *The Art Bulletin*, 60/3, (1978), 531-547. There is a very useful chronological table of patronage in Abromson, *Painting in Rome*, 359-73.

²⁰⁴ Francis Haskell, *Patrons and Painters*, (New Haven: Yale University Press, 1980), 3-23.

²⁰⁵ Abromson, *Painting in Rome*, 362.

²⁰⁶ Spear, 'Scrambling for Scudi', 310-19.

It is worth noting, however, that these two artists were well-known and much sought after. In contrast, Mancini records Caravaggio's meagre earnings, for some of the first paintings he sold in Rome, such as one and a half scudi for his *Boy Bitten by Lizard* (fig. 4) and eight scudi for his *Fortune-Teller* (fig. 39). As his fame grew he could demand more. In the case of the St Mathew cycle in the Contarelli Chapel, he was paid 150 scudi for the altarpiece and 400 for the two flanking paintings. The level of pay an artist could expect depended on his status to begin with (the more sought-after an artist was the higher the price his paintings could fetch) and the type of subject matter (genre paintings would fetch less than religious narratives). The status of artists was not fixed and they could be listed among the gardeners and slaves as well as among the highest ranking writers and poets.²⁰⁷ A field worker in 1605 could not count on more than 50 scudi per year in earnings, while Federico Barocci (1535-1612) could charge 1500 scudi for his *Eucharist* in 1603-7.²⁰⁸ The personal freedom that could be gained from having one's own studio could be measured against the stability of having lodgings with a specific patron and being tied to his service. As mentioned above, both Caravaggio and Annibale Carracci moved to their own studios. However, as their fortunes changed after 1605 their financial situations deteriorated and the records of their belongings show little evidence of prosperity.²⁰⁹

2.3.7: The Anno Santo in 1600

The Holy Year was proclaimed every twenty-five years. The Anno Santo of 1600 was particularly important to mark the end of the century, when the rise of Protestantism had severely questioned the legitimacy of the papacy, and show that Rome had truly recovered from the Sack.²¹⁰ The main focus was on penitence as pilgrims flocked to Rome for the absolution of their sins. The Anno Santo of 1600 was a call for both penitence and conversion. Clement VIII had led the ceremony for the French heretic king Henry IV's conversion to Catholicism in September 1595, an event which was cautiously seen as a Roman Catholic victory. The Spanish were not pleased with the conversion, but Baronio convinced the Pope that it was his duty to absolve any penitent

²⁰⁷ Haskell, *Patrons and Painters*, 3-23.

²⁰⁸ Spear, 'Scrambling for Scudi', 310-19.

²⁰⁹ Langdon, *Caravaggio*, 296-7.

²¹⁰ Stefano Andretta, 'Gli Anni Santi del Seicento', in *La Storia dei Giubilei, 1600-1775*, (Florence, BNL, 1999).

heretics.²¹¹ In the jubilee of 1600 Clement VIII thus spent hours in the penitentiary of St Peter's confessing the arriving pilgrims.²¹²

The jubilee and the promise of redemption drew large crowds to Rome. With a population of approximately 100 000 people, Rome had to accommodate at least another 500 000 tourists during the year (some estimates put the number as high as 1,200, 000).²¹³ Over Easter the population rose by around twenty-one percent.²¹⁴ This put a lot of strain on the people of Rome as it meant increasing prices for food, wine and accommodation.²¹⁵ The Pope tried to accommodate the large numbers of pilgrims and tourists through warning hotel owners and inn keepers not to exploit their position by overcharging the visitors. Extra grain was imported from Spanish Sicily, supplied by the new Spanish King Philip III (1578-1621). The Governor of Milan was asked to repair roads for the event. The Pope also urged cardinals to stay in Rome and prohibited carnivals, to ensure that people focused on piety rather than frolicking.²¹⁶

The refurbishment of the city was focused on providing a coherent history of the Church. Relics, places of martyrdom and the catacombs signalled the glorious past. Printed texts would help the pilgrims make sense of their journey through Rome's churches and official guides would help the visitors who were illiterate or too poor to afford the written books. The renewed strength of the present papacy was equally important with the renovations of St Peter's at the center of the celebrations.²¹⁷

Furthermore, 408 different confraternities including those with seats in Rome, visited the Holy City. The confraternities aimed at visibility and processed with crowds of people bearing banners and standards. One particular event in which the Confraternity of the Misericordia met the Confraternity of the Trinità made a particular impression on the Romans. The two processions included several hundred torch-bearers and several carts on which the whole Passion was presented to the spectators.²¹⁸

²¹¹ Langdon, *Caravaggio*, 154-5.

²¹² Ludwig Pastor, *The History of the Popes*, vol. 24, (London: Routledge and Kegan Paul, 1952), 269-80.

²¹³ Spear, 'Scrambling for *Scudi*', 310-19.

²¹⁴ Eugenio Sonnino, 'The Population in Baroque Rome', in Kessel and Schulte (eds.), 'Rome Amsterdam', 50-70.

²¹⁵ Spear, 'Scrambling for *Scudi*', 310-19.

²¹⁶ Pastor, *History of the Popes*, 269-80.

²¹⁷ This argument is presented by Peter Higginson, 'Time and Papal Power. The Pilgrim's Experience of the Old and New in Early Modern Rome', in Antoinette Roesler-Friedenthal and Johannes Nathan (eds.), *The Enduring Instant: Time and the Spectator in the Visual Arts: a Section of the XXXth International Congress of the History of Art, London*, (Berlin: Gebr. Mann, 2003), 193-208.

²¹⁸ Pastor, *History of the Popes*, 269-80.

Pilgrimage to various churches was expected as a part of the penitence. Clement VIII visited St Peter's, S. Maria Maggiore, S. Giovanni in Laterano and S. Paolo fuori le Mura every Sunday in 1600. There are also stories about how he climbed the Scala Santa on his gout-ridden knees.²¹⁹ The Pope set a target for the people of Rome as well as the tourist pilgrims to visit as many churches as possible in the Holy Year; while he recommended thirty for the Romans and fifteen for strangers, he personally led by example and visited sixty. The main sites of pilgrimage were St Peter's, S. Maria Maggiore, S. Giovanni in Laterano, S. Paolo fuori el mura, S. Sebastiano fuori le mura, S. Croce in Gerusalemme and S. Lorenzo fuori le mura.²²⁰

On the discovery of the body of St Cecilia in 1599, the pilgrimage also extended to Trastevere. Cardinal Sfondrato apparently found the uncorrupted body of the saint intact under the altar at S. Cecilia in Trastevere during the renovations of the church. At her reburial guards had to be called in to keep the vast crowds in order.²²¹ Special attention was also paid to the catacombs, believed to contain all the Christians martyred in pagan Rome.²²²

Filippo Neri (1515-1595) was one of the first to realise the importance of the catacombs in a Rome which was looking for historical roots beyond the pagan past. His closest circle included Baronio, Gabriele Paleotti (1522-1597) and Federico Borromeo (1564-1631). Furthermore, he was one of the most influential religious men in Rome and he was known to all because of his humility and piety. He spent many hours in the catacombs under S. Sebastiano and often brought with him his disciples or visitors, (for example Carlo and Federico Borromeo). As a religious superstar he was a part of the Roman fabric. That many of his most profound religious experiences took place in the catacombs, including an encounter with the Holy Ghost, was most likely well known.²²³

The Christian martyrdoms were also represented on the newly decorated walls of the Jesuit church S. Stefano Rotondo, with grim clarity of subject matter and no gruesomeness spared the spectator (fig. 40). The martyrdom cycles were painted in 1581-5 by Niccolò Pomarancio (c. 1517/24-1596), Matteo da Siena (1533-1588) and Antonio Tempesta and depict just the types of punishments that were enacted on the streets of Rome. The violence of torture and execution was increasing in Rome before

²¹⁹ Pastor, *History of the Popes*, 269-80.

²²⁰ Pastor, *History of the Popes*, 269-80.

²²¹ Langdon, *Caravaggio*, 162.

²²² Pastor, *History of the Popes*, 269-80.

²²³ Ludwig Hertling and Engelbert Kirschbaum, *The Roman Catacombs and their Martyrs*, (London: Darton, Longman & Todd, 1956), 1-19.

the jubilee. In Tor di Nona and Tor de Savella and in the Piazza Salviati, Piazza del Popolo, the Campidoglio and the Piazza de Fiori the convicted were hanged, strangled, quartered, decapitated, burned and mutilated. Indeed, these events were popular spectacles. The victims were encouraged to repent and in doing so transform the execution into a good death reminiscent of martyrdom. In 1599 the Cenci trial became a very public affair. It ended in the beheading of Beatrice Cenci (1577-1599) and her mother and the quartering of her brother. They had all been involved in killing the violent father of the family. The crowd at their execution was vast and it reacted with compassion; an unusual response to a public execution. Both gender and class considerations prompted this empathetic reaction. The public had sympathy for the young girl who killed her oppressive father from the start, and there were rumours that the Pope was after the Cenci wealth. Beatrice's faith seemed like that of a martyr and she was deemed comparable to a saint.²²⁴

In this environment, images of Christian characters would necessarily have a strong impact on the viewer. With the neuroscientific data it is possible to understand the relation between the viewer and the image, both contextually specific, more thoroughly.

²²⁴ Langdon, *Caravaggio*, 154-90. See also Corrado Ricci, *Beatrice Cenci*, (Milano: Fratelli Treves, 1925).

2.4: ART THEORY IN ROME, MILAN AND BOLOGNA

2.4.1: The Roman art world and art theory

The art theoretical concerns in Rome are important as this is where Caravaggio worked and where most of his patrons lived. The creation of the Accademia di S. Luca (1593) had an important impact on the art world in Rome, providing a new forum in which to discuss theoretical issues. The city had until this point lacked a unified institution for art education and theoretical discussion. The situation in Rome can be contrasted with that in Florence where Lorenzo the Magnificent (de' Medici, 1449-1492) had created a small school for painters and sculptors at the end of the fifteenth century in order to improve the state of the visual arts. Lorenzo employed Domenico Ghirlandaio (c. 1448-1494) to find promising candidates to join the new school. Michelangelo Buonarotti (1475-1564), whose work and subsequent fame would earn him the name 'Il Divino' (used by Vasari, 1511-1574) was already Ghirlandaio's apprentice. Michelangelo's success inspired the foundation of a true Accademia Fiorentina with governmental backing in Florence in 1541. Zuccaro, whose disparaging comments about Caravaggio's work began this thesis, tried to reform the Florentine institution in the 1570s. His plans for theoretical studies in course form were never realised. When the Accademia di S. Luca was created, the improvement of the arts was already a part of the agenda for any Academy worth its name. The second, and perhaps more important issue in the foundation of the Accademia di S. Luca in Rome, was the related desire to increase the status of the artist.²²⁵

In Rome, many artists, including Zuccaro, Cesari and Girolamo Muziano (1532-1592), belonged to the Congregazione di S. Giuseppe di Terra Santa alla Rotonda. The Congregazione was formed in 1543 as an artist's club meeting in the Pantheon. The Accademia di S. Luca itself opened as late as 1593, on the initiative of Federico Borromeo and Zuccaro. Its purpose was to provide education to artists and a platform for theoretical debate. Zuccaro wanted there to be theoretical debates every day after lunch on subjects such as the 'Paragone' (the merits of painting versus sculpture), on the definition of *disegno*, on composition and on the representation of human movement. In

²²⁵ For the earliest history of Accademia di S. Luca see Romano Alberti, *Origine et Progresso dell' Accademia del Disegno de Pittori, Scultori & Architetti di Roma*, (Pavia: Pietro Bartolli, 1604). Denis Mahon notes the lack of primary sources regarding the Accademia di San Luca in *Studies in Seicento Art and Theory*, (Westport, Conn.: Greenwood Press, 1947), 157-8. See also Nikolaus Pevsner, *Academies of Art Past and Present*, (New York: Da Capo Press, 1973), 25-66.

addition, an emphasis on morals followed from the new emphasis on clarity and historical correctness that was promoted since the Council of Trent. However, after the foundation there seems to have been surprisingly scant interest in theoretical debates.²²⁶

Zuccaro's enthusiasm for theory seems never to have spread to the other members and in the meetings he had difficulties finding people to give lectures on theoretical subjects. Even some of the individuals who agreed after persuasion, for example Giacomo della Porta (1533-1602) and Taddeo Landini (1561-1596), in the end did not fulfil their obligations, on the pretence of being too busy. This seeming lack of concern with theory is interesting in itself - one academician on being offered the opportunity to speak, responded that he was a painter not a theorist.²²⁷ Nonetheless, there was a vivacious artistic community and it is unlikely that the members would not have discussed theoretical issues relating to their works. It is clear that as its president Zuccaro had several grand plans to heighten the status of the arts and to educate artists not only from Rome but also visitors from abroad who could find lodgings in the Academy. It is clear that the Accademia di S. Luca was a hub of activity that incorporated several important and influential men in the art world.²²⁸ The most prominent of these was Federico Borromeo, who held the first director's seat. His interest in art theory is well-known and whose connections to both Milan and Bologna should be noted. As he left the position Borromeo's teacher and influential art theoretician from Bologna, Gabriele Paleotti, shared the seat with Caravaggio's first patron, del Monte.

2.4.2: Lomazzo in Milan

Milan is central to Caravaggio's understanding of art theory when arriving in Rome as it was the context in which the artist learnt how to paint. It should also be noted as the base for Carlo and Federico Borromeo who were involved in developing structures for the production and display of art, particularly in churches.²²⁹

²²⁶ Mahon, *Studies in Seicento Art and Theory*, 157-191. Pevsner, *Academies of Art*, 59-66. These types of social relations are interesting as it means that art theory was circulated through a network of acquaintances from Rome, Bologna and Milan. Artistic life in Rome was dependent on input from the other two cities, both theoretically and practically with the move of Caravaggio and Carracci.

²²⁷ Alberti, *Origine*, 26, 67-8.

²²⁸ Alberti, *Origine*.

²²⁹ Federico Borromeo, *De Pictura Sacra*, [Milan: 1624], Carlo Castiglioni (ed.), (Sora: Pasquale Castro Camastro, 1932). Carlo Borromeo, *Instructiones Fabricae et Supellectilis Ecclesiasticae*, [Milan: 1577], trans. and commentary by Evelyn Carole Voelker, (Ann Arbor, Michigan: University Microfilms, 1982).

Lomazzo and his writings are particularly important because he was active in Milan at the time Caravaggio was apprenticed there in Peterzano's studio. Lomazzo evidently realised the value of movement for many types of experience. His second book in the *Trattato dell'Arte de la Pittura* focuses on the depiction of motion of the face and the body (see p. 18). It reads almost as a technical guide, instructing the painter how to depict different emotions. Lomazzo divides these into four categories, according to the humours; Melancholic, Choleric, Sanguine and Phlegmatic. He argues that the emotions are expressed with different force in the different character groups. Here his approach is basically scientific, even if the humoral theory he uses was already slightly dated even by sixteenth-century standards. In writing the *Trattato*, he was trying to create an art theory that included both philosophical as well as practical matters and was situated in a context of cosmology. The humours are connected to the elements and then to the sun and the moon and the various planets. This, in turn, was connected to astrological contexts so that a larger system is superimposed on his basic theory.²³⁰ His writings are thus not straightforward evidence for viewer engagement. The astrological content of his work can easily detract from some of the poignancy of his theoretical thinking; however, his need for a larger system in which to place his theory and his emphasis in this theory on emotional engagement fits into the historical context and need to be considered.

Lomazzo spent his life as a painter and writer in Milan, something that impacted on his preferences. Crucially, he sees Leonardo as exemplary in the way he studied movement in real life before attempting to represent it on canvas.²³¹ While this is an obvious choice, it is also a Milanese choice. As Lomazzo was born in a family with some social standing, he received a good education. His artistic career was mediocre, working for Giovanni Battista della Cerva (dates unknown) who was an assistant of Gaudenzio Ferrari (c. 1475/80-1546). Nonetheless he achieved some renown even outside Milan and his education allowed for intellectual socialising. He prospered especially within the social circles of the Accademiglia dra Vall d'Bregn (or 'Accademia della Valle di Blenio', founded in 1560). This academy was dedicated to Bacchus and promoted an obscure Lombard dialect of Swiss wine porters, the consumption of wine and the writing of comic literature. Lomazzo even became the

²³⁰ Lomazzo, *Trattato*, see particularly the second book on movement, 105-86, and for a discussion on Lomazzo's writings see Gerald Ackerman, 'Lomazzo's Treatise on Painting', *The Art Bulletin*, 49/4, (1967), 317-26.

²³¹ Lomazzo, *Trattato*, 105-86.

group's 'Abbot' and wrote several texts as the result of this commitment. He also painted a self-portrait in this particular role (fig. 41).²³² The first art theoretical piece he published was the *Trattato* in 1584, followed by the *Idea del Tempio della Pittura*. His involvement in Milanese intellectual life gave him a podium from which to spread his ideas.

Lomazzo progressively became blind, starting in 1571. This can be seen as problematic for someone writing art theory about how seeing movement leads to emotional responses. It can, however, be argued that it is precisely because of his loss of the sense on which his livelihood depended that it is necessary to take his theories seriously. He would have been very aware of the functions of sight because he was not able to take vision for granted. His understanding of what effect sight has on the emotional and empathetic response of the viewer may be more trustworthy because of and not despite his handicap.

Lomazzo's influence is also potentially of great importance here, although, unfortunately the subsequent fortunes of his writings have not been well investigated. How widespread the direct knowledge of Lomazzo's work was is uncertain. The treatises were not reprinted in Italy until 200 years after their first issue and they had not sold well at the first publication. Nevertheless, his friendships and preferences may provide pointers to some of the circles where his ideas were formed and circulated. The Accademia dra Vall d'Bregn attracted artists and as a prominent member and as Abbot Lomazzo would have had a relaxed platform for discussion. The theoretical preoccupations that concerned Lomazzo would have been important in painting workshops throughout Milan. Indeed, his own workshop provided the foundational training for Ambrogio Figino (1548-1608), who was one of the most successful artists in Milan at the end of the sixteenth century.²³³

It is notable that one of the painters Lomazzo admired most was Peterzano, Caravaggio's master. While Peterzano's theoretical considerations at the time Caravaggio joined him in his workshop are not immediately clear, his frescoes in

²³² Giovanni Paolo Lomazzo, *Rabisch dra Academiglia dor Compà Zavargna, nabad dra vall d'Bregn, ed tucch i sù fidigl soghit, con rà ricenciglia dra Valada*, [1577], (Milan: Paolo Gottardo Pontio, 1627), 27-28 and Martin Kemp, 'Lomazzo', *Grove Art Online* (Oxford Art Online, Oxford University Press, 2007-9), University of East Anglia, accessed 27.11.07.

<<http://www.groveart.com/shared/views/article.html?section=art.051601#art.051601>>.

²³³ Freedberg, *Painting in Italy, 1500-1600*, 596-9.

Monastero Maggiore show some influence from Figino.²³⁴ Even though there are no direct links between Lomazzo and the young Caravaggio it is important to note that the treatise was created in an environment with which the latter would have been well acquainted during his formative years as an apprentice.

2.4.3: The Carracci and Paleotti in Bologna

While Caravaggio trained as an artist in Milan, the Carracci were active in Bologna. In comparison to Rome and Milan, Bologna had remained peaceful during the sixteenth century. As a part of the Papal States Bologna had extensive connections to Rome and its inhabitants were effectively ruled by the Pope. Bologna had a well-respected university and important families sent their sons to the city to be educated (including Federico Borromeo).²³⁵

The Carracci were born and grew up in the city and had extensive links to its academics and patrons. Their theoretical thinking is known mainly through a surviving copy of Vasari's *Vite* with annotations by the Carracci brothers in the margins.²³⁶ The debate about who actually wrote the notes is not particularly relevant here as the three artists worked together and Agostino and Annibale Carracci held their Academy in Ludovico's (1555-1619) studio in Bologna, an academy that was to have an important afterlife in Rome. The annotations which were published in 1627, give an insight into the Carracci's theoretical concerns. The main theme running through the annotations is their dissatisfaction with Vasari's preference for and promotion of Florentine art and his dislike and disregard of North Italian art. The Carracci were particularly unhappy with Vasari's scant treatment of Titian, and disappointed by his relative indifference to Giorgione, Pordenone, Tintoretto, Salviati and Veronese. They further criticised Vasari for not studying nature but blindly copying old masters.²³⁷

²³⁴ Ugo Ruggeri, 'Peterzano', *Grove Art Online* (Oxford Art Online, Oxford University Press, 2007-9), University of East Anglia, Accessed 27.11.07, <http://www.groveart.com/shared/views/article.html?from=search&session_search_id=1137757086&hitnum=1§ion=art.066726>.

²³⁵ For a good historical overview see Anton Willem Adriaan Boschloo, *Annibale Carracci in Bologna*, vol. 1, trans. Robert Symonds, (The Hague: Government Publishing Office, 1974), 101-7.

²³⁶ The annotations have been known through several different copies of the original. The most widely used version is that reproduced from an eighteenth century copy in the Vatican Library by Heinrich Bodmer, 'Le Note Marginali di Agostino Carracci nell'Edizione del Vasari del 1568', *Il Vasari*, 10, (1939), 89-127. The original was found in 1972 and was donated by its owner to the Biblioteca Communale dell'Archiginnasio in Bologna.

²³⁷ Bodmer, 'Le Note Marginali', 89-127, Charles Dempsey, 'The Carracci Postille to Vasari's Lives', *The Art Bulletin*, 68/1, (1986), 72-6 and Boschloo, *Annibale Carracci*, vol. 1, 44-91.

Annibale Carracci arrived in Rome in 1595, after having already established himself as an artist in Bologna, where he had opened the Accademia degli Desiderosi' together with his brother Agostino in their cousin Ludovico's studio (probably around 1582). Interestingly, there is a letter from Ludovico to Federico Borromeo, who was Carlo Borromeo's cousin and Archbishop of Milan from 1595, about the competitions and prizes awarded in their Academy. In this exchange, Federico was hoping for advice about setting up his own academy in Milan and he later became involved in the foundation of the Accademia di S. Luca in Rome.²³⁸ The Carracci Academy functioned as a meeting place for artists, where they were provided with both practical and theoretical knowledge. One particularly significant and prominent feature was the emphasis laid on studying from nature. The artists were encouraged to use their own eyes to draw objects, human bodies and landscapes. There were even excursions out into the countryside to draw the natural environment. When Annibale Carracci settled in Rome he continued his new style of painting, developed in Bologna with his brother and cousin. He painted from nature and picked the best features from classical sources and from the great masters.²³⁹ As Annibale Carracci arrived in Rome he brought with him both friends and pupils of the Academy. They were prepared for the tasks that awaited them there and the commission of the Farnese Gallery ceiling was already negotiated. Since the mid-seventeenth century, Annibale Carracci has been seen as Caravaggio's counterpart.²⁴⁰

One of the Carracci's influences while in Bologna was Gabriele Paleotti. Paleotti was the Bishop of Bologna and a friend of Carlo Borromeo in Milan. He was also Federico Borromeo's tutor and knew Filippo Neri in Rome. These personal connections are important as art-theoretical ideas in the sixteenth and seventeenth centuries could easily be circulated through personal correspondence.²⁴¹ For example, in a letter to Carlo Borromeo, Paleotti discusses a copy of Johannes Molanus' (1533-1585) book on sacred imagery, *De Picturis et Imaginibus Sacris* (Louvain, 1570), perhaps the

²³⁸ I have not personally had access to this letter, which is kept in Biblioteca Ambrosiana, Milan, mentioned in Dempsey, 'The Carracci Postille', 72-76.

²³⁹ Bellori, *Le Vite*, 31-45 and for a good English translation on the lives of the Carracci see, Giovanni Pietri Bellori, *The Lives of Annibale & Agostino Carracci*, trans. Catherine Enggass, (University Park: Pennsylvania State University Press, 1968). Boschloo, *Annibale Carracci*, vol. 1, 39-43.

²⁴⁰ Bellori started this trend in his lives of the artists Bellori, *Le Vite*, 31-45 and 211-3, Wittkower, Rudolf, *Art and Architecture in Italy 1600-1750*, (Pelican History of Art Series: New Haven: Yale University Press, 1958), 73.

²⁴¹ This is discussed further in Cecilia Voelker, 'Borromeo's Influence on Sacred Art and Architecture', John Headly and John Tomaro (eds.), in *San Carlo Borromeo, Catholic Reform and Ecclesiastical Politics in the Second Half of the Sixteenth Century*, (London: Folger Books, 1988), 172-187.

first on the topic to come out of the Council of Trent's doctrines.²⁴² In 1563, the twenty-fifth session of the Council of Trent decreed that:

‘great profit is derived from all holy images, not only because the people are thereby reminded of the benefits and gifts bestowed on them by Christ, but also because through the saints the miracles of God and salutary examples are set before the eyes of the faithful, so that they may give God thanks for those things, may fashion their own life and conduct in imitation of the saints and be moved to adore and love God and cultivate piety.’²⁴³

Paleotti was at the time working on his own *Discorso Intorno alle Immagini Sacre e Profane*²⁴⁴ (Bologna, 1582) using much of Molanus' work as a major source. The Council of Trent gave the episcopate more power in the matter of appropriateness of art, encouraging Paleotti to produce rules for the artists to follow. Paleotti who wanted a Roman Catholic Reform in Bologna wrote the treatise as a guide for how artists could aid this process. Beyond Molanus, Paleotti also incorporated views from Giovanni Andrea Gilio's (d. 1584) *Due Dialoghi*.²⁴⁵ Gilio is famous for a criticism of Michelangelo's *Last Judgement* which he saw as an example of an artist being over-interested in showing off his skills and in doing so neglecting decorum. He emphasised how important it is for a painter to depict the truth of a narrative, with great care and with consideration of the context of the setting, such as time of day and details of the space, as well as the specific elements of the story. A ‘realistic’ depiction of a religious narrative ought not, for example, neglect the wounds of the flagellated Christ or the arrows of St Sebastian in the hope of making the painting more pleasing.²⁴⁶ Paleotti expresses similar ideas in his theories.²⁴⁷ The Tridentine doctrines condemning obscure

²⁴² Voelker, ‘Borromeo’s Influence’, 172-187. David Freedberg analyses Molanus’ work, particularly chapter 42 which deals with provocative paintings. This is also included in original in David Freedberg, ‘Johannes Molanus on Provocative Painting’, *Journal of the Warburg and Courtauld Institutes*, 34, (1971), 229-45.

²⁴³ ‘Canons and Decrees of the Council of Trent’, reproduced in Elizabeth Gilmore Holt (ed.), *A Documentary History of Art*, vol. 2, (New York: Doubleday & Company, 1958). For the original in Latin, Council of Trent, *Canones et Decreta Sacrosancti Oecumenici et Generalis Concilii Tridentini sub Paulo III, Iulio III, Pio III, Pontificibus Max.*, (Rome: Apud P. Mantium, 1564), 285.

²⁴⁴ Gabriele Paleotti, *Discorso Intorno alle Immagini Sacre et Profane*, [Bologna, 1582], in Paola Barocchi (ed.), *Trattati d’Arte del Cinquecento*, vol. 2, (Bari: Laterza, 1961), 119-509.

²⁴⁵ For a facsimile of the first publication of the work see Giovanni Andrea Gilio, *Due Dialoghi*, [Rome: Antonio Gioioso, 1564], Paula Barocchi (ed.), (Florence: Studio per Edizioni Scelte, 1986).

²⁴⁶ Gilio, *Due Dialoghi*, 87-8.

²⁴⁷ Paleotti, *Discorso*, in Paola Barocchi (ed.), 417.

and unusual imagery were not only reiterated by Paleotti, but also by Federico Borromeo.²⁴⁸ While it may seem that Caravaggio's reformulations of religious narratives respond to this desire for clarity, the artist was not necessarily praised for his efforts. Federico Borromeo, who owned a still-life by Caravaggio, criticised his religious paintings.²⁴⁹

Clarity and historical accuracy were of utmost importance to Paleotti, because of his preoccupation with the spectators' response to religious imagery. For him the painters needed to be guided since their works could elicit a variety of viewer responses. Paintings should strengthen the viewers' belief, and guard against sin and erroneous judgements. Paleotti's instructions were designed to achieve these aims. The artists had the potential of reaching a great number of people. This could be highly beneficial, providing that an image was correctly painted and engaged the viewer in an appropriate way.²⁵⁰

One of the innovative strands of Paleotti's argument is that he acknowledged that the viewers of an image would be varied. They would most likely come from different social backgrounds and have varying levels of education (if any at all). This led him to some extraordinary conclusions. He made it perfectly clear that in order to reach and get an emotional response from the viewer, the painter must be allowed certain departures from the rules. An artist should be permitted to play on the audiences' emotions a little. Paleotti considered the depiction of virtues and how these could be adjusted to evoke empathy in different types of spectators. So, if the audience contained many soldiers, the painter should paint a virtuous soldier.²⁵¹ Equally, if it contained merchants he should include a virtuous merchant, to whom they would react. In order to reach the whole audience, he cautions the painter not to paint a saint as beautifully as possible, but to engage the viewers through proper expression of devotion and if suitable extreme suffering. Paleotti certainly considered the empathetic responses to painting important and something that could be used for the good of the Church.

²⁴⁸ Federico Borromeo, *De Pictura Sacra*. For a thorough discussion of Paleotti's influences see Boschloo, *Annibale Carracci*, vol. 1, 133-41.

²⁴⁹ Ferdinando Bologna translates a section of an unpublished letter found in the Ambrosiana, 'Caravaggio, the Final Years (1606-1610)', in Silvia Cassani and Paolo Altieri (eds.) *Caravaggio: the Final Years*, (Naples: Electra Napoli, 2005), 16-47.

²⁵⁰ Paleotti, *Discorso* in Paola Barocchi (ed.), 461, see also Boschloo, *Annibale Carracci*, vol. 1, 133-41.

²⁵¹ Paleotti, *Discorso* in Paola Barocchi (ed.), 461.

Paleotti's views are important for several reasons. Firstly, painting historical and religious scenes correctly involves accuracy. The advice of Lomazzo (as well as Alberti and Leonardo before him) suggests that it was commonly accepted that the recognisability of a particular character depends on the precision with which the artist could render gestures and expressions in paint. Correct depiction of gesture and expression would make an image more easily legible and thus better understood by a larger audience. This is substantiated by what is known about the functioning of the mirror neuron systems, which play a crucial role in the embodied understanding of both the movement of others and of painted characters.

Secondly, Paleotti's theories embrace the emotional impact resulting from viewing any painting, a process corroborated by the theories of Alberti, Leonardo, and Lomazzo and confirmed by neuroscientific evidence. Thirdly, Paleotti also argues that the artist should use realistic depictions and thereby heighten the emotional impact of the painting. By emphasising beauty of the character, for example, St Sebastian being pierced by arrows, this emotional response could be lost. Instead, 'realistic' depictions of the same subject matter could have the desired effect.

The idea of accuracy and clarity was further promoted by Cardinal Cesare Baronio. He was the most important ecclesiastical historian around 1600 and his influence within Oratorian circles made his ideas accessible to a large audience. He stressed historical accuracy as a means of defending the Roman Catholic Church and the authority of the papacy against heretical Protestant criticisms. Baronio had close friendships with Filippo Neri, Pope Clement VIII who kept him as a confessor and Federico Borromeo. He was prompted by Neri to write the *Annales Ecclesiastici*, which were designed to provide the Catholic Reform Movement with a historical justification for the institution of the papacy and the Roman Catholic faith.²⁵² His ideas were spread through sermons and preaching and through visual aids to the poor and uneducated, reaffirming for Catholics that theirs was the one true faith. The emphasis he laid on correct history was important for painting, as visual images could do historical justice to an event and help to inform a large crowd (larger than could be reached with a treatise) about the legitimate foundations of their faith.²⁵³

²⁵² Cesare Baronio, *Annales Ecclesiastici*, 12 vols. (Antwerp: Moreti, 1597-1612).

²⁵³ Langdon, *Caravaggio*, 48-9 and Cyriac Pullapilly, *Caesar Baronius Counter-Reformation Historian*, (Notre Dame, Indiana: University of Notre Dame Press, 1975), 49-66, whose account is detailed although biased and therefore slightly uncritical of Baronio's contribution.

2.5: CONCLUSION

Neuroarthistory is dependent on three different parts: the ‘contextual brain’, the historical framework and the art produced within that particular context. A human brain is the product of both evolutionarily developed genetic factors and neural plasticity; constant changes due to the input from the senses. Out of these senses, vision, in particular, is important in examining viewer engagement. There are patterns of selectivity throughout the visual system that shape the way in which we see the world. The eyes are connected directly to several areas of the brain in order for the human to be able to redirect focus quickly to new stimuli, be they visual, aural, tactile and olfactory. The entire visual system prioritises the middle of the visual field, rather than the periphery. It is also particularly focused on outlines, as these hold more information about the shapes that allow for object and movement recognition. The notion of a ‘contextual brain’ is based on the close study of human biology but is not limited to studies regarding only universal responses.

The human brain is astounding in its complexity. It functions through thousands of connections of up to 100 billion neurons. These connections are flexible and dependent on experience, training and learning. Neural plasticity is crucial for a ‘contextual brain’ that adapts according to its natural, social and cultural environment. Milan and, more importantly, Rome constitute that context for Caravaggio and his paintings. Both cities were fervently religious, something that impacted on the visual culture and the mindset of the inhabitants. In order to understand viewer engagement in Rome around 1600 it is crucial to examine the impact of the papacy and the Anno Santo. Visibility became of utmost importance in the late seventeenth century, as Rome was being prepared for the jubilee. The city was to display its prime position as the centre of the only legitimate Christianity. The ruins that had served as evidence for an antique past were now contrasted as pagan remains against more splendid modern buildings.

The changes, restorations and redecorations heightened the status of individuals and their families. In the case of the artists, these external traces constituted proof of their skills and the improvement of the arts and the status of the artist were integral to the foundations of art academies in both Florence and Rome. While Zuccaro did not manage to raise an interest in art theoretical issues at the Accademia di S. Luca, it is clear that different types of theoretical concerns were important in Rome, Milan and

Bologna. Furthermore, art theory was also circulated in the social circles of some of the most influential men in Italy.

In the case of the patron, the commissions testified to their piety and status. For the papacy, the renewal of Rome's churches provided visual evidence of the success of Roman Catholicism. The Pope's piety was also traced through what he could be seen doing during the Anno Santo. The piety of papal Rome was also visibly demonstrated in religious celebrations (such as canonisations) and processions throughout the city. Even the public executions were used to serve the visibility of Roman Catholicism.

Roman Catholic renewal also prompted the art theory of Paleotti, who saw viewer engagement as a useful tool for the Church. To him, art works in churches constituted a means to reach a wide variety of people. He also urged the painter to render religious narratives in a realistic manner in order to make the spectator empathise. The painter should, for example, emphasise the suffering of martyrs. The emphasis on empathetic viewer engagement is also found in Lomazzo's writings. He emphasises the connection between skilful depiction of the movements of characters and the viewer's emotional response.

This is consistent with neuroscientific data on mirror neurons. These respond both to making particular movements and seeing those particular movements; providing a basic empathetic link between the viewer and the characters on a canvas. This connection between seeing and doing is also present in facial recognition, allowing for a human not only to recognise a particular expression, but also empathise with others. This is also the case for pain processing, where a human being automatically responds to seeing pain as if (s)he was in a similar danger. Furthermore, these systems display high levels of neural plasticity and empathetic ability is directly related to the activity of the mirror neurons. These brain functions are crucial in the response to implied movement in works of art and it is clear that the empathetic engagement of the viewer was sought for in painting around 1600.

PART 3: VIEWER ENGAGEMENT: THE ARTIST

3.1: INTRODUCTION

3.1.1: The artist as a specific case

‘I think it helps to find that artists noticed and thought important what we see.’²⁵⁴ John Shearman is right; artists matter in the viewing of art. For example, Shearman describes how Raphael (1483-1520) noticed a detail, namely the crushing of wings, in Donatello’s (1386/7-1466) bronze *David with the Head of Goliath* (fig. 42) and used it as a feature in his painting *St Margaret and the Dragon* (fig. 43). In Donatello’s bronze, David is crushing a wing on Goliath’s hat, whereas St Margaret is depicted as stepping on the dragon’s wing. Shearman then continues to discuss a variety of examples in which heads are being stepped on in different ways. He argues that the minute details of the action of stepping indicate what is going on and also notes how the artists cleverly changed these to fit specific scenes. He writes of artists as people who would be notably observant of these details of movement or, to use his terminology, of ‘happening’, as they are in the business of producing this effect for various audiences.²⁵⁵

Part 3 will substantiate Shearman’s claims. The case study considers a situation not unlike that of Raphael’s viewing of Donatello’s *David with the Head of Goliath*. It involves Artemisia Gentileschi looking at Caravaggio’s painting of *Judith Beheading Holofernes* before making two versions of the same subject matter. Caravaggio’s version is particularly action-packed and her interpretation of the narrative suggests a reaction to his depiction of movement and expression. Part 3 thus concerns mainly the artists and their working practices. Looking intently at other artists’ work is an important factor in the production of their own works. Through applying neuroscientific data it is possible to examine how the artists engaged with the depicted movement in other artists’ works of art.

3.1.2: Intention

It is clear that a consideration of the way in which one artist responds to a particular painting and then makes a new image with striking similarities to the first can lead one into the murky waters of ‘intention’ as well as issues of influence. It is thus necessary to

²⁵⁴ Shearman, ‘Only Connect...’, 22.

²⁵⁵ Shearman, *Only Connect...*, 17-27.

discuss the possible pitfalls of analysing the relation between the two artists' work. This in turn poses a different issue to the neuroarthistorian, that of the mind/brain relation, to which I shall return shortly.

Concentrating on 'intention', or what the painter (or any number of originators of the 'concept', such as the patron) 'had in mind', involves focusing on a conscious mental process at a specific time or series of moments. Although this kind of internal 'event' cannot be completely recovered, art historians still use a variety of evidence in the attempt to re-construct plausible scenarios of past events. Shearman's statement that Raphael noticed a detail in Donatello's bronze and used it in his painting is an argument founded on visual evidence (Raphael's crushing of wings is similar to Donatello's crushing of wings) and the likelihood of Raphael knowingly chose that particular feature. This applies equally to Artemisia looking at Caravaggio's painting. The argument is founded on a comparison of the paintings and the likelihood that Artemisia chose to appropriate certain features and change others. A focus on intention also suggests that the artist's conscious mental process is of critical importance in understanding a work of art or uncovering its meaning. There is a risk of ignoring that the artist's 'mind' necessarily is connected to the wider world. Several different contributing factors may be present in the making of an object (including anything from a particular patron's wishes to a wide cultural context). Finally, a focus on intention also suggests that what the painter had in mind is consistent with the result. As a consequence the argument becomes circular and any (for example accidental, unintentional) differences between the work and the 'intention' become problematic.²⁵⁶

Further, if one takes David Summer's approach and sidesteps addressing the artist's concept by focusing on what particular components of a work of art meant in a particular context, one also necessarily sidesteps the artist. The artist ceases to create the meaning, but simply becomes the mediator of it. This is less than helpful in this context as the subject here is a particular artist appropriating specific visual components of another artist's work.

With a focus on the artists' contextual brains, whether or not they intended to incorporate certain features from other artists' work is less important. If a relation can

²⁵⁶ David Summers, 'Intention', *Grove Art Online* (Oxford Art Online, Oxford University Press, 2007-9), University of East Anglia, 22.03.2007, <<http://www.groveart.com/shared/view/article.html?section=art.041403>> and Michael Baxandall, *Patterns of Intention, On the Historical Explanation of Pictures*, (New Haven: Yale University Press, 1985), 41-2.

be suggested between two works, on the basis of striking similarities of those two works, it is possible to suggest one artist reacting to another's work, with or without intentional deliberation.

3.1.3: Influence

The concept of influence is equally fraught with difficulties. Influence is 'the capacity to have an effect on the character, development, or behaviour of someone or something, or the effect itself'.²⁵⁷ 'Influence' thus suggests activity outside the viewer/painter, but necessarily happens as a consequence of (in this case) seeing something with very particular equipment, that is the subjective mind or the individual painter's contextual brain. The same problem occurs as that described above in the case of intention; there is no way of determining exactly what was in the painter's mind or brain at the moment (s)he looked at an art work, thought about it and incorporated features of it in his/her own works. It is possible however, to suggest what the most likely reaction was to particular visual features.

Looking at the specific context in which Caravaggio and Artemisia worked, it is clear that artistic practices in early modern Italy included a certain amount of copying and borrowing from the old masters or classical exemplars. Even Caravaggio, who supposedly rejected copying from a model in favour of studying from nature, referenced Michelangelo in several of his most famous works (including for example *Victorious Cupid*, fig. 12 and *The Calling of St Matthew*, fig. 1). The 'influence' does not directly originate from Michelangelo or even the Sistine Chapel ceiling. Rather, it resides with Caravaggio looking at the Sistine Chapel ceiling and adapting features from it. Again, this leads back to the issue of intention and there is only limited evidence that Caravaggio visited the Sistine Chapel. Firstly, there are features in Caravaggio's paintings that look strikingly similar to features of Michelangelo's work. Secondly, it is probable that Caravaggio, as an artist in Rome, would have made a point of studying one of the most famous works of art in the city. That this practice of copying, borrowing and adapting was widespread is clear both from the visual evidence and from contemporary art theory.²⁵⁸

²⁵⁷ *OED*, s.v. 'influence'.

²⁵⁸ See for example Maria Loh, 'New and Improved: Repetition as Originality in Italian Baroque Practice and Theory', *Art Bulletin*, 86/3, (2004), 477-504.

3.1.4: The mind and the brain

Discussions concerning ‘what the painter had in mind’ are further complicated as the neuroarthistorian necessarily has to consider the relation between the artist’s ‘mind’ and his or her brain. A short digression from the main argument is here necessary to clarify my position. The ‘mind’ is a more or less convenient concept that tends to include consciousness and a series of abilities considered to be factors in a conscious mind, such as emotion, memory, behaviour and will. I do not refer to the ‘mind’ throughout this thesis, as it is a hypothetical entity that describes various features of human existence. As a concept it is an umbrella term that can be adapted at will. While the ‘mind’ is not knowable to anyone beyond the person whose mind it is (and not necessarily even to that person), human brains are available for study. The question as to how (and even how much) ‘mind’ and ‘consciousness’ are generated by neurons firing has not produced any conclusive answers. It has however, instigated more debate than can feasibly be covered in this thesis.²⁵⁹ Furthermore it is clear that there are direct relations between neurons firing and particular phenomena traditionally contained within the concepts ‘mind’ and ‘consciousness’. For example, emotion and memory are now well understood in neuroscientific terms. This thesis focuses only on these direct relations between functions of the brain and the phenomena (rather than a hypothetical entity and phenomenon, which necessarily leads to circularity in the argument) and their relevance to art history, and does not endeavour to settle any issues regarding the mind/brain relation.

²⁵⁹ See Susan Blackmore, *Consciousness, A Very Short Introduction*, (Oxford: Oxford University Press, 2005).

3.2: A NEUROARTHISTORICAL APPROACH TO MOVEMENT AND EMPATHY

3.2.1: Movement

Movement is integral to an understanding of both Caravaggio's and Artemisia's versions of *Judith Beheading Holofernes* (figs. 9, 10 and 11); Caravaggio represented a particularly active section of the narrative and Artemisia followed him, changing details of the movement. However, movement in painting is not necessarily an obvious category, as characters in paintings only imply movement. Paintings and painted scenes remain static and thus it is only the suggestion of movement in Caravaggio's paintings that can be examined. As will be demonstrated in the three case-studies movement is central to understanding Caravaggio's working practices as well as his treatment of subject matter.

I choose the term 'movement' as it encompasses great variety and carries little baggage. However, for an art historian there are terms that might seem more suitable. 'Gesture' and 'expression' are common concepts that conjure up a variety of different art historical and art theoretical issues. 'Gesture', which derives from the latin word for carry, 'gerere', denotes body movements which often communicate feelings, intentions, meanings and ideas. 'Expression' ('express' literally means to 'press' or 'squeeze out') can be used to describe the conveying of emotion or meaning, the look on someone's face or a phrase. The term is used in art history in a variety of ways. This thesis focuses on the external appearance of a face or a face painted on canvas. The expression suggests something about the person on whose face the expression appears. This 'something' is often an emotional state. To Lomazzo, representing expressions is a means for the painter to communicate the subject matter. However, several questions easily follow the definition above. How emotional states are communicated, as well as how correctly they may be communicated through expression is one issue. Who actually communicates is another. In Caravaggio scholarship the emphasis is still often placed on the artist and his personal life.

These issues are further complicated by Lomazzo's claim that not only do these expressions communicate; they have an impact on the spectator.²⁶⁰

In dealing with the issue of how gestures communicate, Moshe Barasch divides them into two apparent categories. Expressive gesture communicates emotion while conventional gesture conveys established meanings. According to Barasch the first is instinctive and natural and he gives the examples of blushing and avoiding a weapon by quickly moving away from it. These types of gestures can communicate a state such as embarrassment or fear even though they are considered spontaneous. The conventional gestures on the other hand are those that are 'performed in order to convey a message',²⁶¹ such as shaking hands. The division is necessarily an artificial one, built on the false opposition of nature and culture. It is clear, for example, that Lomazzo's use of the four humours, where gestures and expressions are considered symptomatic of particular character-bases (the melancholic who hangs his head for example), cannot be treated as either cultural or natural.²⁶² Lomazzo's carefully arranged system is rather built on studies of and assumptions regarding gestures and expressions as well as previous traditions of theory. The division of natural and cultural is in this instance too simplistic to be useful.

In the case of Caravaggio the division between natural and cultural gesture raises an additional set of issues. One of the main preoccupations in the literature on Caravaggio is his technique of painting from nature (and consequently his realistic or naturalistic style) and his rejection of the painting of the late sixteenth century, often categorised as 'mannerism'. He did not copy rhetorical gestures from an established pictorial tradition; but, he did liberally rework other painters' depictions of movement.²⁶³ In order to describe Caravaggio's treatment of movement (realistic or copied) and the viewers' engagement as a result of that movement, the art historian needs an approach that is not based, however tenuously, on the false dichotomy of nature versus culture.

²⁶⁰ Lomazzo, *Trattato*, 105. For a short introduction to 'expression' as a term used in art history see Stephanie Ross, 'Expression', *Grove Art Online*, (Oxford Art Online, Oxford University Press, 2007-9), University of East Anglia, 17.03.09, <http://www.oxfordartonline.com/subscriber/article/grove/art/T027164?q=expression&source=oao_gao&source=oao_t118&source=oao_t234&source=oao_t4&search=quick&hbutton_search.x=23&hbutton_sear ch.y=10&pos=1&_start=1#firsthit>.

²⁶¹ Moshe Barash, *Giotto and the Language of Gesture*, (Cambridge: Cambridge University Press, 1987), 4.

²⁶² Lomazzo, *Trattato*.

²⁶³ Varriano, *Caravaggio*, 101-13.

An approach to different types of movement, based in the contextual brain would approach movement differently. The first step is to acknowledge that the human brain is particularly good at responding to implied movement, as it does so with the same area of the brain that responds to movement proper. This means that anything in the image that appears to have the possibility of moving will be treated as such automatically. This is highly helpful to the artist; for example Caravaggio's depiction of the unstable stool in *St Matthew and the Angel* (fig. 2) is effective due to this neural anticipation.

The second step is to consider various types of gestures and expressions. The mirror neurons for example would react strongly to hand and mouth movements and goal oriented movements. Manipulation of different types, such as grabbing, holding and tearing would be particularly effective. It is also involved in action understanding which means that these actions would be automatically qualified in the viewer's brain. Since the mirror neurons react both to doing and seeing, the understanding would be based on the individual's own movements, thereby creating a connection between the viewer and the character in the art work. For different types of facial expressions a similar thing would happen. Particularly areas of the insular cortex would respond to seeing different types of facial expressions, connecting both seeing an expression, making the same expression and feeling the emotion attached to that expression. Finally, the areas that respond to the actual experience of pain also respond when the viewer sees someone else in pain. Whether or not these are fully recognisable to the viewer depends on the training of the individual. There are expressions for example that are global and particularly when expressed as clearly as they are in Ekman's photos, they are understood globally. However, as in the case of the ballet dancers (pp. 65-6), if a movement is not one generally performed by the viewer, it may not elicit a strong response in the viewer.

3.2.2: Movement in painting

There are several types of movement that might be discussed as important in Caravaggio's work. Beginning with the example used in the case study of Part 3, *Judith Beheading Holofernes*, it is necessary to state that this image is particularly action packed. There are three distinct facial expressions and three different types of poses. There are several hand movements; grabbing hair and cloth, holding a sword, and

Holofernes appears to support himself with one hand. Furthermore, there are objects in movement; the sword slicing through Holofernes' neck and a strange sweep of Judith's dress. Many of these would be instantly accessible to viewers because of the workings of their brains. Caravaggio's *Doubting Thomas* (fig. 6 and a case study in Part 4) is another good example of Caravaggio's use of movement in imagery. It is subtler than *Judith Beheading Holofernes* and the actions of the characters less forceful although not necessarily less dramatic. Doubting Thomas' facial expression of surprise is contrasted against the calm expression of Christ. While Thomas hunches over, the others remain upright. Thomas' elbow sticks out towards the viewer. However, the focus of the picture is his finger prodding the wound of Christ. In this movement he is helped by Christ who seems to guide Thomas' hand with his left hand. With his right he reveals the wound by pulling back his clothing.

To give an idea of what types of issues might be involved in discussing the prodding and guiding in *Doubting Thomas* I will consider a few additional factors here. This is one of the earliest images by Caravaggio in which expression and gesture is emphasised over detailed visual description. In comparison to the *The Penitent Magdalen* (fig. 44), for example, the lack of detail is striking. In *Judith Beheading Holofernes* the details of the blanket, the bed and the curtain seem elaborate in comparison to the starkness of the *Doubting Thomas*. The characters are simpler and the background is dark. As a result, the focus is entirely on the action. Touch is central to the narrative; Caravaggio's version particularly emphasises this through focusing on St Thomas' dirty finger prodding the wound of Christ. Thomas overcomes his doubt by pushing his finger into the gash in Christ's side. The scene Caravaggio develops out of this narrative asserts that empiricism may overcome disbelief in matters of faith. St Thomas supposed 'empiricism' in prodding Christ's side is also associated with Caravaggio's empiricism in studying nature instead of copying old masters.²⁶⁴ Spike even aligns Caravaggio and his depiction of St Thomas with Galileo Galilei (1564-1641) in that they both in different ways prioritise experience as a source of knowledge. This study of nature was emphasised by the painter and writer Sandrart, who was the curator of Giustiniani's collection from 1632-5.

²⁶⁴ Spike, *Caravaggio*, 123.

He makes a claim for the painting's realism by writing that compared to the *Doubting Thomas*, with its skilful representation of both faces and flesh, other paintings look like coloured paper.²⁶⁵

Varriano writes that this painting more than others confirms Caravaggio's 'belief in the primacy of phenomenological experience'.²⁶⁶ The image evokes the complications of discussing the sensual experience of paintings. The painting is only available to most viewers through sight and, importantly, not through proper touch. Even if Giustiniani ever touched his image he would not have been able to penetrate the surface as St Thomas does. The depiction of movement in this painting has thus been connected to Caravaggio's ideas about the subject matter, and, as an extension, the topics of empiricism and experience. It is also connected to his technique and the possible success of painting on the basis of nature.

3.2.3: Empathy

Having introduced some issues concerning movement in painting we can now turn to 'empathy'. The *Oxford English Dictionary* defines 'empathy' as 'the power of projecting one's personality into (and so fully comprehending) the object of contemplation'. In aesthetics it was originally the translation of the German term 'Einfühlung'. Friedrich Theodor and Robert Vischer discuss the projection of the viewer's individual emotional onto objects and suggest that an individual can express an internal state through any object or feature. Robert Vischer even states that the combination of the perception of an object and the viewer's (in this case his own) internal state produces a particular phenomenon where 'I see in the latter a sort of duplicate of myself, the photographic image of my own mood'.²⁶⁷ However, the origin of the type of projection can also be based in the object, so that for example the light from the moon enters

²⁶⁵ 'Da Bildete er nun in aller Anwesenden Angesichtern durch gutes mahlen und rundiren eine solche Verwunderung un Natürlichkeit an Haut und Fleisch aus, daß meist alle andere Gemätabey nur als illuminirt Papier scheinen.' Translation in Hibbard; 'In it he represented the faces of all those present through such good painting and modelling of face and flesh that it makes most other pictures look like coloured paper.' Sandrart, *Joachim von Sandrart's Academie*, in Hibbard, *Caravaggio*, 377.

²⁶⁶ Varriano, *Caravaggio*, 130.

²⁶⁷ Vischer, 'The Aesthetic Act', 691.

‘the perceiving eye as neural vibrations all the way to the central nervous system, and it is thus in and out of the latter that the entire sensible and spiritual economy of the human being finds itself transposed into a state of excitation specifically determined and coloured by this bluish-white luminescence’.²⁶⁸

In psychology ‘empathy’ (etymologically ‘suffering with’) developed slightly differently, mainly because the object to be empathised with is a human being rather than a thing. In the *Oxford Dictionary of Psychology* it is defined as ‘The capacity to understand and enter into another person’s feelings and emotions or to experience something from the other person’s point of view.’²⁶⁹ If the object of the empathetic reaction is another human who also is capable of emotional states, understanding ‘correctly’ becomes a crucial part of social interaction.

The term empathy was only developed in the nineteenth century and was not used in the seventeenth century. This could have posed the problem of anachronism. However, descriptions of earlier empathetic engagements with imagery, in particularly Lomazzo’s writings (but also for example Xenophon and Horace, and later Alberti and Leonardo) suggest that the phenomenon was known in seventeenth-century Italy.

3.2.4: Empathetic connections: the artist and the image

Caravaggio’s empathetic engagement with his own paintings is difficult to trace. However, his self-portraits, which show that he literally placed himself in the characters’ position, can serve as a base for discussion. The self-portraits constitute good evidence of a basic connection between artist and imagery. They can be seen as self promotion through a considered connection between the subject matter and the artist. This consideration shows that an empathetic engagement is likely, however, the self portraits have been used in art history to connect Caravaggio’s own experience or emotional state to his paintings, as these are seen as expressed on the canvas. The extrapolations on Caravaggio’s state of mind or life which have been drawn from his

²⁶⁸ Vischer, ‘The Aesthetic Act, 691.

²⁶⁹ “empathy n.” Andrew Colman (ed.), *A Dictionary of Psychology*, (Oxford: Oxford University Press, 2006). *Oxford Reference Online*, Oxford University Press, University of East Anglia, 04.03.2009, <<http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t87.e2731>> .

paintings are often largely unfounded (one very good example is the dramatization of Caravaggio's last painting *David with the Head of Goliath*, fig. 33).²⁷⁰

In order to situate the discussion, it is crucial to acknowledge that an established tradition of self-portraiture in Rome already existed. Caravaggio was following in the footsteps of and perhaps making a reference to Michelangelo and Raphael when he used his face for a character in a painting. It could furthermore be argued that he repeatedly incorporated his image because of his working methods; he used the models that were readily available to him. There are two particularly prominent examples of Caravaggio's self-portrait (both as severed heads), the *Medusa* (fig. 45) and the *David with the Head of Goliath*. These two paintings were made over ten years apart and evidence that he incorporated his self-portrait both early and late in his career. Self-portraits are indeed present throughout his career - in how many of his paintings is contested. The *Sick Bacchus* (fig. 46) is possibly the first instance, while later he portrayed himself as one of the men running away in the *Martyrdom of St Matthew* in S. Luigi dei Francesi, one of his first large scale commissions (fig. 3). His face has been recognised mainly in representations of sinners or bad characters. Whereas Michelangelo set a precedent for a tradition of portraying the artist as a villain, Caravaggio definitely developed it.

The severed heads have received particular attention. The first of these was the *Medusa* in c.1597, in which the screaming face of Medusa is Caravaggio's self-portrait. Several psychoanalytic explanations, including fear of castration, have been adopted to analyse the painted head; however, little beyond a now discredited psychoanalytic theory would support such interpretations.²⁷¹ The *Medusa* was painted when Caravaggio was in the service of Cardinal Del Monte and was presented as a gift to the Grand Duke of Tuscany Ferdinand I de' Medici (1548-1609). It was most likely a competition piece, as Vasari mentions two Medusas painted by Leonardo; the second of these was left unfinished and ended up in Cosimo I de' Medici's (1519-1574) collection. Whether or not Leonardo's version was still in the Medici collection is unknown. This does not make a huge difference, as del Monte as well as Ferdinand would most likely have known the account of the painting in Vasari's *Vite*.

Vasari's narrative emphasizes the realistic effect of the paintings. The first version was painted in Leonardo's youth, on a shield for a local farmer. It is significant

²⁷⁰ Spike, *Caravaggio*, 240, sensationalises *David and Goliath* describing it as Caravaggio's confession in paint, stating that Caravaggio identified with Goliath.

²⁷¹ Hibbard muses on Caravaggio's fear of castration, *Caravaggio*, 69.

that Caravaggio also used a shield. According to Vasari, Leonardo's aim was to stun the viewer in the same way as the actual head of Medusa. He therefore collected a number of reptiles, insects and bats to incorporate into the image. He worked on the piece for so long that his room started to smell from the dead corpses. When he finally presented it to his father and the farmer, both were taken by surprise, and were shocked at the horror in front of them as they did not realize that the head was painted and not real.²⁷² In competition with Leonardo's celebrated realism, Caravaggio's *Medusa* can be seen as a commentary on his own ability as an artist to stop the spectator in his tracks. Medusa's power to turn people into stone then also stands for the artist's ability to shock people through imagery. This point is emphasised through the incorporation of the artist's own likeness. The painting shows the ability of Caravaggio to place himself within the imagery, lending his own appearance and identity to that of a character in the composition.²⁷³ However, this does not necessarily reflect his own personality.

An even more empathetic self-portrait can be found in Caravaggio's later career in the decapitated head of Goliath, held out for the viewer's inspection and perhaps pity by a David who has tenuously been identified as Cecco del Caravaggio (active in Rome 1610-1620, birth and death dates unknown), one of his assistants and possibly his lover (there is little hard evidence to support this claim, see pp. 177-9). At the time Caravaggio was waiting for a pardon from Rome, after many years of flight and exile after the killing of Ranuccio Tomassoni (d. 1606). In sending the painting to Rome (it was in Scipione Borghese's collection by 1613 at the latest), he can perhaps be understood as offering his own head, the villain's head.²⁷⁴ Again, the identification may have been a selling strategy, rather than a simple expression of his personal life and state of mind.

These two paintings are two cases in which Caravaggio cast himself in the role of one of his characters. As evidence of empathy these paintings suggest that Caravaggio connected Medusa's ability to petrify people to the artist's ability to shock the viewers of his paintings and that he associated Goliath as a villain with his own status as a villain on the run after killing a man. This is important here as these more obvious cases of empathetic connections provide evidence that the artist recognised the empathy response as important in painting.

²⁷² Giorgio Vasari, *Lives of the Artists*, [1550], vol. 1, trans. George Bull, (London: Penguin Books, 1965), 258-261.

²⁷³ Hibbard, *Caravaggio*, 65-9 and Friedlaender, *Caravaggio*, 157 and 119-22.

²⁷⁴ Hibbard, *Caravaggio*, 261-4 and Timothy Wilson-Smith, *Caravaggio*, (London: Phaidon, 1998), 126.

Artemisia Gentileschi similarly understood this connection and the interest from patrons in her self-portraits as *Pittura* (fig. 47) shows their awareness of the relations between the image, the depicted character and the artist. (Art historians like Mary Garrard have also suggested autobiographical references in these paintings. However, as will be discussed on pp. 120-23, these are not well substantiated.)²⁷⁵

3.2.5: Freedberg, mirror neurons and aesthetic response

The above examples of the artist's empathetic investment in the imagery of his pictorial compositions are heavily reliant on traditional art historical evidence which underpins the importance of empathetic response in the understanding of the pictorial imagery, although it does not further explain the phenomenon. Instead empathy is implicitly described as a cognitive response. David Freedberg argues firmly against such a cognitive basis in understanding the impact pictorial imagery can have on humans, considering it only second to more automatic responses. In arguing that the embodied simulation that arises from the mirror neuron function is crucial in generating an emotional response and empathy with the seen imagery he gives several examples. Thus, as Michelangelo's *Prisoners*, such as the *Slave Called Atlas* (fig. 48), struggle out of the material, their straining bodies are understood and almost felt by the viewer's brain and body. One of the consequences of looking at the mutilated and damaged bodies in Goya's (1746-1828) *Que Hay Que Hacer Mas?* (fig. 8) is an internal simulation of pain. He continues with the example of Caravaggio's *Doubting Thomas* (fig. 6), who pushes a finger into Christ's wound. The bodily experience of the passive hurt from an open wound being prodded and the sensation of touching flesh can be transmitted through sight of the image. Freedberg stresses that this phenomenon is extensive and include many different types of movement as well as a variety of emotions.²⁷⁶ These include those discussed by Alberti and Leonardo, who included various types of movement, action, touch, expression, gesture and pose within this category.²⁷⁷

In *Empathy, Motion and Emotion* Freedberg observes that German art theory of the late nineteenth century focused intently on empathy as a valid category in discussing

²⁷⁵ Mary Garrard, *Artemisia Gentileschi around 1622: The Shaping and Reshaping of an Artistic Identity*, (Berkeley: University of California Press, 2001), 19-20.

²⁷⁶ Freedberg and Gallese, 'Motion, Emotion and Empathy', 197-203.

²⁷⁷ Leonardo, *On Painting*, 130-58 and Alberti, *On Painting*, 83-5.

art without the sophisticated research that is available to modern art historians. The neuroscientific data that has emerged since the 1990s enables him to state that ‘it ought no longer to be possible to speak of the social construction of behaviour in terms that are uninfluenced by attention to the anatomy, biology and chemistry of the human brain’.²⁷⁸ He believes that much of the resistance to scientific input into the humanities derives from fear that cultural and historical specificity would be marginalised, and that context would become obsolete. Instead he argues that it is necessary to treat cultural expressions as extensions and modifications of basic human behaviour.²⁷⁹ Crucially, he understands the new scientific material as foundational to other enquiries. (It should be reiterated here that the approach followed in this thesis considers these two, cognitive and automatic instinctive responses, as heavily dependent on each other; neither should be discounted in favour of the other.) He points out that the mirror neuron systems are a general component of the human brain. This makes him want to see them as universal in their operation.²⁸⁰

Freedberg’s basic argument is that all humans respond empathetically to imagery as there are mirror neuron systems in their brains that respond both when they perform a particular action and when they see the action or even a representation of that particular action. However, he further shows the wider applications of the mirror neuron systems. Embodied responses do not only occur when looking at the visual content of imagery, but also for example when looking at a mark made by an artist. Freedberg notes the embodied response that can occur when looking at, for example, a drip painting by Jackson Pollock (1912-1956) (fig. 49), where the movement of the painter is automatically implied through the trace; the applied paint. He also gives the example of Lucio Fontana (1899-1968). His slit canvases (fig. 50) leave the maker’s mark and a bodily understanding of the making of that mark embedded in the viewer’s brain and body.

Therefore, beyond understanding the intentions of the characters in a painting (for example Judith cutting through the neck of Holofernes), or even the object moving (the sword slicing through the neck), mirror neuron systems may also help us to understand the physical actions of the painter. Freedberg’s examples of Pollock and Fontana’s works are particularly striking. However, it is possible that Artemisia

²⁷⁸ David Freedberg, ‘Empathy, Motion and Emotion’, in Klaus Herding and Antje Krause Wahl (eds.), *Wie sich Gefühle Ausdruck verschaffen: Emotionen in Nahsicht*, (Berlin: Driesen, 2007), 17-51.

²⁷⁹ Freedberg, ‘Empathy, Motion and Emotion’, 17-51.

²⁸⁰ Freedberg and Gallese, ‘Motion, Emotion and Empathy’, 197-203.

Gentileschi, who was trained as a painter, would have had a similar sensation when looking at a painting by Caravaggio, even though the making process is less obvious in his works. Freedberg mentions the empathetic feel of hand movement in drawing; however, it must be noted that painting leaves quite different marks and that Caravaggio's brushstrokes may be less noticeable to the non-expert. In the same context, Freedberg argues that even though phenomenological theories, concerning the empathetic reaction to both art and the making process, have a respected place within art history, they have been largely ignored. Furthermore, now that the basis for empathy can be reliably located inside the human brain, it is time to reconsider it as an important aspect of aesthetic experience.²⁸¹

²⁸¹ Freedberg and Gallese, 'Motion, Emotion and Empathy', 197-203. David Freedberg, 'Action, Empathy and Emotion in the History of Art', paper given at *From Mirror Neurons to the Mona Lisa: Visual Art and the Brain*, at the New York Academy of Sciences on 05.11.2005, University of East Anglia, 27.04.2007, <<http://www.nyas.org/ebriefreps/ebrief/000500/presentations/freedberg/player.html>>.

3.3: CARAVAGGIO AND ARTEMISIA GENTILESCHI

3.3.1: Caravaggio's Life

Freedberg assumes that the neuroscientific findings are most useful in explaining what he terms 'universal' empathetic responses. The cultural, historical and other contextual factors are ignored and instead of merging the two types of data Freedberg settles for stating that the two do not contradict one another.²⁸² Since the aim of this thesis is to show that movement and empathetic engagement, in pictorial imagery, were particularly important in early modern Rome, the contextual factors are important. Furthermore the process of neural plasticity shows that environmental input matters to the structure of the brain. The present section will provide some of this contextual data and deal with the artists' backgrounds, reputations and working methods. It focuses on the evidence already available in order to highlight some of the problems in the scholarship on Caravaggio and Artemisia Gentileschi.

Caravaggio was born Michelangelo Merisi in 1571; his family came from the farming community of Caravaggio outside Milan. He was apprenticed to Simone Peterzano (c. 1540- c. 1596) in Milan in 1585 and many aspects of Caravaggio's Roman works, most notably his 'realism', have been connected to his northern Italian training. Carlo Borromeo and Lomazzo, are often mentioned as having impacted on his life and work.²⁸³ Caravaggio's mother died in 1589, his share in the family property was sold in 1591 and the final division of the estate took place in 1592. The artist arrived in Rome, at the latest, in early 1593.²⁸⁴ Caravaggio joined the large-scale economic migration to Rome generated by the preparations for the jubilee of 1600.²⁸⁵ This was quite a common career choice for artists. His situation as an immigrant artist was shared by several other painters. Matthijs Bril the younger (1550-1583) had arrived earlier, probably around 1575, from Antwerp and worked under Lorenzo Sabatini in the Vatican. His brother, Paul Bril (c. 1554-1626), would join him at the latest in 1582. He was involved in the restoration projects in S. Cecilia in Trastevere in 1599. Adam Elsheimer (1578-1610) arrived in the jubilee year, after a two-year journey from Frankfurt via Venice. Rubens went to Italy in 1600 and was working in Rome in 1602,

²⁸² Freedberg and Gallese, 'Motion, Emotion and Empathy', 197-203.

²⁸³ Hibbard, *Caravaggio*, 2-3, Catherine Puglisi, *Caravaggio*, (London: Phaidon, 1998), 20-3, and Langdon, *Caravaggio*, 9-33, for three out of many examples.

²⁸⁴ Langdon, *Caravaggio*, 29.

²⁸⁵ Langdon, *Caravaggio*, 154-90.

painting in S. Croce in Gerusalemme, and visited again in 1606-8.²⁸⁶ It is likely that Caravaggio took advantage of familial ties. He soon found accommodation in Rome with Pandolfo Pucci, steward to Camilla Peretti (1519-1605), who was the sister of the late Sixtus V Peretti. There were close ties between the Peretti family and the Colonna and Caravaggio's father had held a prominent position in a branch of the Colonna family in Caravaggio.

Caravaggio was not happy with the arrangement with Pandolfo Pucci, calling his host 'Monsignor Insalata', stating that he was only given salad to eat. He therefore started working for Cesari as a still-life painter (a suitable occupation for a new Lombard painter). Cesari's studio was situated on Piazza della Torretta. This was a good position to be in, as Cesari gained some of the most important and economically valuable commissions in Rome. It also allowed for opportunities to cultivate an active social life. There were many taverns in the neighbourhood that Caravaggio and his friends, like Orazio Gentileschi and Onorio Longhi (1568-1619), frequented on a regular basis.²⁸⁷

He lived in various different households before finding secure employment with Cardinal Francesco Maria del Monte. His early career is characterised by various paintings of young boys and genre scenes like *The Musicians*, *The Fortune-teller* and *Cardsharps* (figs. 32, 39 and 51). Even though there are religious works from this period he appears to have had no public commissions.²⁸⁸

At the time when Caravaggio painted the *Judith Beheading Holofernes* (1598-9) his career was changing. Del Monte had established Caravaggio in the Palazzo Madama in 1595 and for the first time the painter could enjoy a courtly existence with an easy access to patrons and commissions. The household was the setting for many intellectual pursuits, including art, music and science and Del Monte's collection would grow to include 599 pictures.²⁸⁹ Caravaggio's new patron also shared the Director's seat in the Accademia di S. Luca with Paleotti. One of the habitual visitors to Palazzo Madama was Vincenzo Giustiniani. The Giustiniani family had arrived from Genoa and their residence was situated across the road from Del Monte, opposite S. Luigi dei Francesi. Giustiniani would become a collector and an avid supporter of Caravaggio's work. He bought the *St Matthew and the Angel* (fig. 13, c. 1602) meant for S. Luigi dei Francesi,

²⁸⁶ Brown, Beverley Louise (ed.), *The Genius of Rome*, (London: Royal Academy of Arts, 2001), 14-41.

²⁸⁷ Langdon, *Caravaggio*, 51-76.

²⁸⁸ Spike, *Caravaggio*, 25-77.

²⁸⁹ Langdon, *Caravaggio*, 96-130.

the *Doubting Thomas* (fig. 6, c.1602-3) and he particularly cherished the *Victorious Cupid* (fig. 12, 1601-2). He amassed money and knowledge with equal fervour.

Giustiniani also knew Ottavio Costa (1554-1639, both men had made their fortunes as bankers) who eventually bought the *Judith Beheading Holofernes* and the two shared similar tastes in painting. Costa, too, was an ardent collector who owned paintings by Giovanni Lanfranco (1582-1647) and Guido Reni (1575-1642).²⁹⁰

Even though Caravaggio was now associated with highly respectable patrons, he used fairly ordinary people as models for the characters in the paintings. In 1598-9, the date of the *Judith Beheading Holofernes*, he also completed a *St Catherine of Alexandria* (fig. 52) and a *Penitent Magdalen* (fig. 44). All these female leads look very similar to his *Portrait of Fillide* (fig. 53). Fillide Melandroni was a prostitute who was closely associated with Caravaggio's circle. It is probable that she sat for Caravaggio on several occasions.²⁹¹

Caravaggio's first public commission was for the paintings of scenes from the life of St Matthew for the Contarelli Chapel in S. Luigi dei Francesi, of 1600-3 (figs. 1, 2 and 3). The next commission was for the Cerasi Chapel in S. Maria del Popolo for which he made the *Crucifixion of St Peter* and the *Conversion of St Paul* (figs. 14 and 15). With these commissions he became famous not only in Rome but also across Europe. He now additionally had the Barberini and the Borghese as patrons and was able to secure several more public commissions.²⁹² In 1605 Caravaggio had rented a house in Vicolo dei Santi Cecilia e Biagio (now Vicolo del Divino Amore). This was close to the area where many of the Flemish artists resided in Rome, on and around Via Margutta. He seems to have lived poorly in the years before fleeing Rome. This was not unlike Annibale Carracci who also at this time had moved, from Palazzo Farnese, into a succession of different houses, while having a nervous breakdown.²⁹³

On May 28th 1606, Caravaggio and Ranuccio Tommassoni had a fight on Via della Scrofa, which left Caravaggio badly hurt and his opponent dead. Fillide Melandroni's involvement in this fight is confirmed, although it is unclear how she was involved. The names of Tommassoni and Caravaggio recur in the trial documents of the

²⁹⁰ The period around the centenary is especially well covered by Helen Langdon's chapter 'Conversion and Martyrdom: the Jubilee of 1600', Langdon, *Caravaggio*, 154-190. For information about Caravaggio's patrons and their social circle see also, 96-130.

²⁹¹ Puglisi, *Caravaggio*, 124-39.

²⁹² Puglisi, *Caravaggio*, 143-83 and Langdon, *Caravaggio*, 154-90.

²⁹³ Langdon, *Caravaggio*, 275-318.

time in connection with brawls, fights over women and the illegal wearing of arms.²⁹⁴ Caravaggio, for example, was arrested for carrying weapons close to Palazzo Madama. This was not an unusual occurrence. The police, ‘the sbirri’, had several duties, and debt collecting and arresting people for illegally carrying weapons occupied most of their time. Their task was a difficult one since the confiscation of an illegal weapon was seen more as an attempt to leave the accused unprotected than a measure for keeping peace. The Roman people had little faith in the legal system and would rather solve conflict themselves than involve the police or the courts. Prostitutes even used ‘sbirri’s girlfriend’ as an insult.²⁹⁵

Caravaggio fled Rome. While in exile, he worked in Naples and Malta, and achieved his lifelong ambition of becoming a knight. After further imprisonment he fled again and, after hearing news of a possible pardon from the Pope, Paul V, he set out for Rome, but was never to reach his destination. In 1610, in Porto Ercole, he was mistaken for someone else, badly beaten and thrown into prison. When he was finally released, his boat had already sailed. According to his biographers he died after trying to catch a glimpse of it, running along the beach in the midday sun.²⁹⁶

3.3.2: Caravaggio’s biographers and his character

Both Caravaggio’s and Artemisia’s lives come with dramatic, passionate and violent narratives which have been perpetuated in modern scholarship and often connected to the imagery of their paintings. While this emphasis has contributed to a better understanding of artists’ lives in early seventeenth-century Rome, it has led to a neglect of other ways of analysing and understanding their works.

Caravaggio is usually described as someone with the characteristics of a choleric, making him violent and predisposed to paint dark pictures. In early modern Rome, character was a crucial category, thought of as something that could be adapted and moulded to suit particular purposes. It was used in this manner by both Caravaggio, to promote himself in different ways, and his biographers, to criticise his work. The seventeenth-century biographers established a preoccupation with Caravaggio’s

²⁹⁴ Langdon, *Caravaggio*, 275-318.

²⁹⁵ Blastenbrei, ‘Violence, Arms and Criminal Justice’, 68-87.

²⁹⁶ Bellori describes this in most detail, *Le Vite*, in Hibbard, 355-6. There is also a very good article on the way Caravaggio’s biographer’s stress how he dies a bad death; Philip Sohm, ‘Caravaggio’s deaths’, *The Art Bulletin*, 84/3, (2002), 449-468.

character that is still prevalent in modern scholarship and, in many ways, still colours our understanding of him. For this reason it is necessary to consider the remarks of his biographers in some detail.

The only mention of Caravaggio's paintings made while he was still alive, beyond what is included in the trial records, was a notice in the treatise on modern painting by Carel van Mander, published in Harleem in 1604. Van Mander travelled to Rome in 1573-7 and it is unclear how he knew of Caravaggio's works as he could not have seen them *in situ* himself.²⁹⁷ He mentions Caravaggio as a man of courageous character and good name; a hard working person of reputation and honour. He praises Caravaggio's work and applauds his approach of following nature, particularly stating that the artist would always study the real world. However, he also mentions Caravaggio's tendency to leave work for months, his habit of spending time arguing and fighting at tennis courts, which made it 'difficult to get on with him'.²⁹⁸ Van Mander remarks that 'Mars and Minerva have never been the best of friends'.²⁹⁹ The logic of this is that Caravaggio's bad behaviour does not necessarily coincide with the production of good art and it is to the credit of the other sides of Caravaggio's character that in his case the two did go hand in hand. So Caravaggio's paintings are good despite, not because of, any connections with his flaws in character.³⁰⁰ This type of description is still recurrent today, possibly because van Mander's is the most measured early account available to the modern scholar.

Giulio Mancini, who wrote a treatise on painting, *Considerazioni sulla Pittura*, in 1617-20, is the earliest of Caravaggio's biographers. He writes of the artist's extravagances and dwells on a particular incident, alleging that Caravaggio cruelly ignored his loving brother who wished to visit him at del Monte's residence. Even though Mancini also mentions several famous, well respected patrons as evidence that his art was appreciated, his oddities and eccentricities are presented as the cause of his early death and diminished fame. While he admits that Caravaggio's colouring, single

²⁹⁷ How Caravaggio's works were known in the rest of Europe is not well known and interestingly, seems to have been little studied. This area should be further investigated, however due to time and the constraints of my thesis I have only done very limited searches in this area. There is little evidence that prints, copies or drawings of Caravaggio's work were made and circulated.

²⁹⁸ Mander, *Het Schilder-Boeck*, in Hibbard, *Caravaggio*, 344. Hibbard translates 'soo dat het seldsaem met hem om te gaen is' with 'so that he was impossible to get along with'. Dr Margit Thøfner pointed out that Van Mander is more subtle and I have used her translation above.

²⁹⁹ Mander, *Het Schilder-Boeck*, in Hibbard, *Caravaggio*, 344. Hibbard translates Mander's 'Mars en Minerva zijn doch noyt de beste vrienden ghewest' with 'Mars and Minerva have never been good friends', again, Dr Margit Thøfner's translation is used above as it is closer to the original.

³⁰⁰ Mander, *Het Schilder-Boeck*, in Hibbard, *Caravaggio*, 343-5.

figures and ‘heads’ were good, Mancini’s conclusion is that Caravaggio was hindered in his progress by his temperament.³⁰¹

The second biographer is Giovanni Baglione who had known Caravaggio personally. After being a keen follower, he subsequently turned against both Caravaggio and Artemisia’s father Orazio Gentileschi. Orazio was known for his fierce temper and sharp tongue and in a libel suit in 1603 Baglione defended his name against alleged slander by Caravaggio and Orazio.³⁰² Not surprisingly, his biography presents the first part of Caravaggio’s career (when Baglione was a follower) as the best and most successful. There is a particular mention of the realism of *The Boy Bitten by a Lizard* (fig. 4) which, according to Baglione, was made so well that the boy’s scream almost could be heard. In trying to undermine Caravaggio’s later works he revels in the rejected works, like the *St Matthew and the Angel* (fig. 13). On the other three paintings from the life of St Matthew in S. Luigi, he writes that evil people praised them and that Zuccaro could not understand what all the fuss was about. He describes Caravaggio’s character as slanderous and violent, dwells on the Ranuccio brawl and emphasises the artist’s ‘bad death’ without the last rites, alone on a beach; ‘he died badly, as miserably as he had lived’.³⁰³

Giovan Pietro Bellori assesses Caravaggio in *Le Vite de’ Pittori, Scultori e Architetti Moderni* (published in 1672, over sixty years after Caravaggio’s death). His aim was, in recounting modern artists’ lives, to promote a putatively classical style of art. In this treatise Raphael is the model, Carracci is his follower, Poussin and Domenichino the modern heirs and the best of nature is carefully selected as it had been by Zeuxis in antiquity.³⁰⁴ Caravaggio’s choice of nature is presented as indiscriminating. Bellori dislikes *St Matthew and the Angel* and suggests that Caravaggio is not distinguishing between beautiful and rough nature, as the saint is depicted with dirty feet. He supports his claims with several references to ancient artists and their working methods. When narrating how Caravaggio was shown sculptures made by Phidias and Glycon, Bellori claims that he responded by pointing at a crowd of

³⁰¹ Mancini, *Considerazioni*, in Hibbard, *Caravaggio*, 346-51.

³⁰² Langdon, *Caravaggio*, 264-8, for a detailed description of the trial and the rivalries between these three painters in the context of the Roman art world of the time.

³⁰³ Baglione, *Le Vite*, in Hibbard, *Caravaggio*, 356, ‘e sensa aiuto humano tra pochi giorni morì malamente, come appunto male havea vivuto’.

³⁰⁴ Claire Pace, ‘Bellori, Giovanni Pietro’, *Grove Art Online*, (Oxford Art Online, Oxford University Press, 2007-9), University of East Anglia, 30.03.07, <http://www.oxfordartonline.com/subscriber/article/grove/art/T007705?search=quick&q=bellori&pos=1&_start=1#firsthit>.

people and saying that nature had given him an abundance of masters.³⁰⁵ He refers to the almost identical story, told by Pliny the Elder (c. 23-79), about Eupompos who also shunned artistic authority and painted after nature alone.³⁰⁶

Bellori is advocating that an artist should choose the best of nature with a keen knowledge of artistic tradition. Caravaggio's vulgarity and breach of decorum can in Bellori's only be harmful. He states that painting could not calm Caravaggio's restless nature and continues with an account of the Ranucci murder.³⁰⁷ Yet, Bellori also incorporates a sympathetic verse written by Caravaggio's friend Marino:

‘Death and Nature made a cruel plot against you, Michele;
Nature was afraid
Your hand would surpass it in every image
You created, not painted.
Death burned with indignation,
Because however many more
His scythe would cut down in life,
Your brush recreated even more.’³⁰⁸

Bellori is also the first to relate Caravaggio's physical character to his style. He writes that the darkness of his paintings corresponds with his dark complexion and eyes, his black eyebrows and hair (fig. 54), all physical manifestations of a choleric humour. He also makes a distinction between the younger Caravaggio's sweet paintings and the later Caravaggio's darker palette, his choleric humour increasingly revealing itself both in his life and in his works.³⁰⁹

A much more recent writer, Varriano, suggests that Caravaggio fashioned his own public persona or image much in the same way as the biographers but to different ends, often as a part of a defence in court.³¹⁰ This type of artistic self-fashioning³¹¹ has a

³⁰⁵ Bellori, *Le Vite*, in Hibbard, *Caravaggio*, 362, ‘la natura l’aveva a sufficienza proveduto di maestri’.

³⁰⁶ Pliny the Elder, *The Elder Pliny's Chapters on the History of Art*, trans. Katharine Jex-Blake, (Chicago: Argonaut, 1968), 49, n. 61.

³⁰⁷ Bellori, *Le Vite*, in Hibbard, *Caravaggio*, 360-74.

³⁰⁸ Bellori reproduced a verse by Marino, translated by Hibbard ; ‘Fecer crudel congiura, Michele a’ Danni tuoi Morte e Natura; Questa restar temea, Da la tua mano in ogni imagin vinta, Ch’era d ate create, e non dipinta; Quella di sdegno ardea, Perché con larga usura, Quante la falce sua genti struggea, tante il pennello tuo ne rifacea.’, *Le Vite*, in Hibbard, *Caravaggio*, 371.

³⁰⁹ Bellori, *Le Vite*, in Hibbard, *Caravaggio*, 360-74.

³¹⁰ Varriano, *Caravaggio*, 2.

precursor in Benvenuto Cellini (1500-1571), who promotes his choleric character as a part of his artistic identity in his autobiography. Cellini's character impacts as much on his life as on his art. His choleric humour makes him appear passionate and his violent behaviour is often connected to a culturally specific sense of honour.³¹² This is also comparable to Caravaggio's situation, where many of the offences for which he was arrested can be considered as acts of ritual revenge. Several of Caravaggio's crimes, including the stoning of a landlady's windows and the throwing of artichokes in a waiter's face, as well as the knife and sword street fights and even Tomassoni's eventual murder, can be seen as overly ardent responses to disrespect in a developed culture of honour.³¹³ Furthermore, Cellini closely connected his character-traits of bravery and passion to his working methods. However, there is no evidence that Caravaggio similarly connected his choleric character to his work.

3.3.3: Caravaggio and realism

Caravaggio's procedure, taking nature rather than the old masters as his teachers, is closely connected to the effect his paintings have on viewers and preoccupied the early biographers as well as modern scholars. The biographers only rarely connect his realism with his depictions of movement and expression or with an emotional viewer response. Leonardo, who is generally referred to in the context of Caravaggio's Lombard origins and seen as an important source for the artist³¹⁴, makes clear that the 'nature' used as a model by an artist to achieve a good quality figure has to be chosen wisely. The wrong choice can diminish the effect and propriety of the figure. However, he also states that the depiction of figures:

‘must be made with great immediacy, exhibiting in the figure great emotion and fervour, otherwise this figure will be deemed twice dead, inasmuch as it

³¹¹ Self-fashioning as a term was introduced by Stephen Greenblatt, *Renaissance Self-Fashioning; From More to Shakespeare*, (Chicago: The University of Chicago Press, 1980), 1-9. See also John Martin, 'Inventing Sincerity, Refashioning Prudence: The Discovery of the Individual in Renaissance Europe', *The American Historical Review*, 102/5, (1997), 1309-1342.

³¹² Benvenuto Cellini, *The Life of Benvenuto Cellini*, trans. John Addington Symonds, (London: Phaidon, 1949).

³¹³ Varriano, *Caravaggio*, 73-84.

³¹⁴ Richard Spear, *From Caravaggio to Artemisia, Essays on Painting in Seventeenth-Century Italy and France*, (London: The Pindar Press, 2002), 129-68.

is dead because it is a depiction, and dead yet again in not exhibiting motion either of the mind or of the body'.³¹⁵

Modern scholars have been ready to make this connection quite freely. 'Realism' is then used as an umbrella term that often is used rather vaguely to explain how Caravaggesque paintings appeal to their spectators. The concept also entails a number of important aspects of Caravaggio's working methods and characteristics of his paintings. It is thus important that Caravaggio's realism is further discussed here.

Sidney Freedberg has reflected on the realism of Caravaggio's work and the strong impression it makes on the viewer. He emphasises that Caravaggio's figures have an immediate effect:

'literally without any intermediary between the model-image and ourselves. Caravaggio's apprehension of the model's presence seems unimpeded in the least degree by any intervention of the intellect or by those conventions of aesthetic or of ethic that the intellect invents.'³¹⁶

Similarly, Helen Langdon begins her introduction by stating that:

'The name of Caravaggio has always been associated with a bold and revolutionary naturalism. To his contemporaries his art, rooted in the senses, dependent on the live model, had an almost magical power, and created wonder and enchantment.'³¹⁷

This type of often emotionally charged statement is curiously common in scholarly writing on Caravaggio and a connection between his realism and the impact of his paintings is almost taken for granted. The writers in question have little evidence to suggest why this realism should evoke such an experience. Freedberg's model might help to explain the art historians' statements, but there is a need for a more complex framework to investigate the specifics of seventeenth-century response.

³¹⁵ Leonardo, *On Painting*, 144.

³¹⁶ Sydney Joseph Freedberg, *Circa 1600: A Revolution of Style in Italian Painting*, (Cambridge, Mass.: Harvard University Press, 1983), 53.

³¹⁷ Langdon, *Caravaggio*, 1.

The seventeenth-century biographers dwelled on Caravaggio's reliance on nature. They write in various ways about Caravaggio's methods and the difference between good and 'polished' and bad and 'rough' nature, and interestingly, they are not all critical. Mancini commends Caravaggio on his single figures, writing that 'the artists of our century are much indebted to him',³¹⁸ and further that 'I do not think I have seen a more graceful and expressive figure than the Gypsy who foretells good fortune to a young man',³¹⁹ (fig. 39). Baglione notes that 'some people thought he had destroyed the art of painting',³²⁰ while also acknowledging that he could almost hear the *Boy Bitten by a Lizard* scream (fig. 4).³²¹ Bellori criticises Caravaggio's choice of *imitating* nature rather than *inventing* on the basis of nature, old masters and specific classical source material. He describes Caravaggio as someone who can paint only what is in front of his eyes and not from his imagination. Bellori thus uses him as an interesting case study of someone who goes too far in one direction. There is little emotional involvement on the part of Caravaggio's biographers; however, they do admit that a new generation of painters are fascinated by his realisms.

Varriano shows how 'realism' as a category covers several different areas of Caravaggio's painting habits. Focusing on the term 'realism' enables him to deal in detail with matters such as Caravaggio's treatment of material culture, gesture and expression, his violent imagery as something filtered through a personal understanding of violence and his sexuality and the physicality of the bodies highlighted by his characteristic shadows. The connections between Caravaggio's realisms and the responses of the spectator are examined throughout.³²²

Varriano identifies several ways in which Caravaggio could engage the spectator through realism: the adaptation of modern dress; the incorporation of real people as painted characters; the inclusion of objects owned by the patron; an acute understanding of human gesture and facial expression.³²³ The humanisation of religious subjects is often achieved through such means. Caravaggio's servants, his friends and affiliated prostitutes, as well as the artist himself are portrayed in the (often religious) narratives

³¹⁸ Mancini, *Considerazioni*, in Hibbard, *Caravaggio*, 348.

³¹⁹ Mancini, *Considerazioni*, in Hibbard, *Caravaggio*, 350.

³²⁰ Mancini, *Considerazioni*, in Hibbard, *Caravaggio*, 355.

³²¹ Baglione, *Le Vite*, in Hibbard, *Caravaggio*, 352.

³²² Varriano, *Caravaggio*, 1-4.

³²³ Varriano, *Caravaggio*, 101-126.

and would have been recognisable to at least a limited audience. Varriano dramatically situates Caravaggio as the equal of Courbet in terms of social realism.³²⁴

Even though this cannot be substantiated with firm evidence, Caravaggio's paintings certainly feature intense visual realism. He did give his saints dirty feet and he made them so painfully realistic that his works met with rejection. In the case of *The Death of the Virgin* (fig. 55), the patrons were not expecting the mother of Christ to look like a real dead woman and Mancini writes that the model was a 'dirty whore' from the Ortaccio, the worst part of the prostitute quarter.³²⁵ Bellori mentions in particular *The Penitent Magdalen* (fig. 44) as a girl drying her hair, pretending to be the Magdalen.³²⁶ It is a clever remark as Caravaggio's technique was to use models who would be dressed and adapted for the role and it is a criticism as it implies that the image is not realistic in religious terms. Bellori's comments suggest that there may be a contradiction in achieving a realistic result through using realism as an approach in the making of religious painting. A depiction of a Penitent Magdalen cannot be realistic if it is painted on the basis of a model picked off the streets of Rome. The use of regular people in a religious narrative actually makes the narrative less convincing. Bellori commends instead the use of the imagination and to invent on the basis of the best models in nature.³²⁷

Varriano further argues that Caravaggio eliminates the division between the painted characters and the viewer through various types of pictorial devices: he pushes his figures out of the canvas through reducing the pictorial space (his backgrounds, as the biographers noted, got darker and darker) and depicted light sources often correspond to the actual illumination of the setting. Both of these serve to emphasise the bodies of the characters and make them seem tangible to the viewer.³²⁸ Realism as a concept has to be unpacked to be useful, and when understood more fully, it helps elucidate matters of experience in general and empathy in particular. It is necessary to be aware of the complexities of Caravaggio's realisms in order to analyse viewer responses to his works.

³²⁴ Varriano, *Caravaggio*, 2.

³²⁵ 'meretrice sozza' Mancini, *Considerazioni*, in Hibbard, *Caravaggio*, 349.

³²⁶ Bellori, *Le Vite*, in Hibbard, *Caravaggio*, 362.

³²⁷ Varriano, *Caravaggio*, 87-98.

³²⁸ Varriano, *Caravaggio*, 35-50.

3.3.4: Orazio and Artemisia Gentileschi

The following section will introduce two of the most committed viewers of Caravaggio's work: Orazio and above all Artemisia Gentileschi. As with Caravaggio, Artemisia's life and character have been closely connected to her work by both contemporary sources and modern scholars.

The most direct connection between Caravaggio and Artemisia is through her father Orazio whose relationship with Caravaggio can be traced to as early as 1600. Caravaggio's influence on Artemisia is not straight forward since there is no proof that the two ever met. Orazio came from a Florentine family and was proud of his heritage. Born and raised in Pisa, he moved to Rome in 1576-8 where he first continued in his father's footsteps as a goldsmith. Before 1600, when he found his artistic style as a follower of Caravaggio, his paintings display no hints of having been painted from posed models. Indeed, he already had an established career when he changed his style dramatically. That such a change in direction does not seem to have been especially effective in attracting increased commissions or sales may be an indication that he followed Caravaggio's lead as a matter of personal belief and conviction. However, he did, in contrast to Caravaggio, continue to paint in fresco when commissioned.³²⁹

Baglione brought Caravaggio and Orazio to trial in 1603. The two artists played down their relation, in order to appear innocent of slanderously damaging Baglione's reputation. The trial records nonetheless reveal that Caravaggio and Orazio knew each other and that Caravaggio borrowed props from Orazio. The similarities in the working methods are also very important in establishing their relation as fellow painters. After 1600 Orazio scratches the canvas to create his compositions in the same way as Caravaggio, which suggests that he actually saw Caravaggio working. This could be significant, as Orazio was Artemisia's primary source of education.³³⁰

Artemisia was born in Rome in 1593 (the year Caravaggio probably arrived in the city) making her only seven in the year her father met Caravaggio (1600), thirteen when he left Rome after killing Tomassoni (1606) and just seventeen when the news of his death reached Rome (1610). Orazio realised the potential of his daughter and devoted time to her artistic training, from c.1608-9. His colleague, Agostino Tassi (c. 1580-1644), acted as her teacher in perspective. In 1612 the collaboration with Tassi

³²⁹ Keith Christiansen and Judith Mann (eds.), *Orazio and Artemisia Gentileschi*, (New Haven: Yale University Press, 2001), 3-37, xiii-xx.

³³⁰ Christiansen and Mann, *Orazio and Artemisia Gentileschi*, 3-37.

came to an end with a trial in which Orazio accused Tassi of theft and the rape of his daughter.³³¹

Artemisia's first known painting, the *Susanna and the Elders* (c. 1610, fig. 56), sets the precedent for many of her following pictures that typically focus on heroines. This and the *Judith Beheading Holofernes* have often been associated with the rape and the trial, and have been seen as personal responses to her situation (especially as Orazio accused Tassi of stealing his painting of Judith).³³² After the trial, Artemisia married the Florentine Pietro Stiattesi and they moved to Florence before the end of 1612. Here she gained a patron in Cosimo II de' Medici (1590-1621) who owned the second *Judith Beheading Holofernes* of about 1620, this being eight years after the first version was painted. It was possibly even painted while she was back in Rome, in which case it could be the painting she refers to in a letter to Cosimo de Medici in the same year. In 1630 Artemisia was living in Naples, where she painted mainly religious scenes, presumably because these were easier to sell. She is known to have sold pictures to Antonio Barberini in Rome and to Francesco d'Este I in Modena. She worked alongside her father in London from 1638 to 1639, when Orazio died. The later part of her career is less well known. Though she remained in London for a while, most of the last decade of her life was probably spent in Naples where she died in 1653.³³³

3.3.5: Artemisia Gentileschi: sources and character

Scholarly work on Artemisia has usually been focused on her choice and representation of subject matter (mainly female heroines) and Mary Garrard's approach is perhaps the most prominent example of the feminist research that has been done on the artist and her imagery. In *Artemisia Gentileschi around 1622, the Shaping and Reshaping of Artistic Identity*, she argues that the identity that the artist shapes for herself is based on gender considerations. This approach highlights many interesting features of the artist's work, including the need she saw of fashioning her own public character. Garrard observes that she does not treat Artemisia from a purely autobiographical viewpoint, in which her art is negotiated merely through life events. Furthermore she is not proposing

³³¹ Raymond Ward Bissell, *Artemisia Gentileschi and the Authority of Art*, (University Park: The Pennsylvania State University Press, 1999), 1-18.

³³² Bissell, *Artemisia Gentileschi*, 9-18.

³³³ Christiansen and Mann, *Orazio and Artemisia Gentileschi*, xiii-xx.

to set Artemisia up as a beacon of womanhood or produce a view of her and her work as products of universal conditions of women.³³⁴

Nonetheless, in Garrard's analysis, Artemisia's need to negotiate her own role as a female artist in a patriarchal society is presented as a determining factor in her choice and execution of her subjects. Any analysis of Artemisia's professional character to some extent must take her gender into consideration. Indeed, her composition *Self Portrait as Pittura* (fig. 47) indicates her own and her patrons' awareness of her unusual role as a female artist and she made several versions on this theme.³³⁵ However, Garrard's interpretation still perpetuates the view that Artemisia's work is mainly a product of, and was even determined by, her gender. It fails to explore other avenues of research and it does not take into account that the negotiation of character is necessary for both female and male artists.

Garrard views *Susanna and the Elders* (the painting from 1610) as proto-feminist imagery as it shows a type of Susanna which differs from that found in the works of earlier artists. She compares it to Annibale Carracci's versions in which Susanna is eroticized and does not respond to the elders' advances. Carracci's Susanna remains passive where Artemisia's Susanna clearly shows distress. Garrard sees this victimisation as metaphoric of the sexual harassment that Artemisia reputedly endured at the time. Connecting Artemisia's personal experience to her reinterpretations of visual narratives is a significant part of Garrard's research.

The *Judith Beheading Holofernes*, which was produced just after the rape trial, is one of the paintings that Garrard connects directly to the events of the artist's life. She is certain of the self-representation in the painting;

‘The heroine’s easy dispatch of Holofernes clearly provided fictional compensation for the frustration and paralysis that Artemisia experienced in her own life, both in the singular event of her rape and the ensuing trial and in her general experience as a woman in a social system that deeply discouraged female agency.’³³⁶

³³⁴ Garrard, *Artemisia Gentileschi*, xvii-xxii.

³³⁵ Garrard, *Artemisia Gentileschi*, 56, 60-1 and 68-70.

³³⁶ Garrard, *Artemisia Gentileschi*, 20 and 77-113.

This statement is problematic in several respects. That Artemisia's painting would provide her with psychological release or that she was unhappy with her situation as a woman in Rome at the time is not substantiated by historical records: the statement by Garrard betrays a very modern view of and response to the rape and subsequent trial, and the historical evidence suggests a different interpretation.

Elisabeth Cohen has re-examined the rape and trial in the context of seventeenth-century judicial traditions.³³⁷ The court records are revelatory in several respects. Cohen's viewpoint is that the rape has been understood by modern art historians in terms of twentieth-century psychology and not from a historical perspective. Cohen argues that this type of approach has perpetuated the view of the artist principally as a sexual being and as psychologically the equal of a twentieth-century rape victim. Thus feminist interpretations have focused on themes of heroism, resistance to male violence and the need to create a public persona to counter bad publicity.

Instead, Cohen observes that it was not the psychological welfare of a raped girl but rather the monetary and social consequences of defloration that would have been the principal concern of contemporaries. These consequences would certainly have been important for Artemisia in the creation and maintenance of her public image. Artemisia and the other witnesses showed particular awareness that characters can be built, reshaped and destroyed. The character of the victim, the father, the accused and all the witnesses were significant in the legal allocation of blame.³³⁸

Artemisia's story was traditional and she focused on her character and the social implications of the event. In her testimony she treated her respectability and honour, and significantly not her body, as the entities that were being attacked. Consequently her account closely follows a type of defence offered in defloration cases. Nevertheless her narrative of the actual rape is more violent than would have been required. For the purposes of the trial, it was necessary for her to emphasize that she had defended herself in some way and thus she recounts pulling Tassi's hair, scratching him, removing a piece of flesh from his genitals and finally attempting to stab him in revenge. It is probable that this account of ritual revenge would have helped to restore her public image and honour. It is notable, in this context, that for the first six weeks of the trial,

³³⁷ Elisabeth Cohen, 'The Trials of Artemisia Gentileschi: A Rape as History', *Sixteenth Century Journal*, 31/1, (2000), 47-75.

³³⁸ Cohen, 'The Trials of Artemisia Gentileschi', 47-75.

the negotiations regarding marriage between Artemisia and Tassi continued and only ceased when it was revealed that Tassi was already married (but unable to account for his wife's whereabouts).³³⁹ This interpretation affects the types of claims that can be made about the artist and her connection to the imagery and a more complex understanding of the artist is needed.

The trial records dominate scholarship on Artemisia Gentileschi, as they are both plentiful and dramatic; an unfortunate consequence has been that less emphasis has been paid to other parts of her career. The facts that she married, had several children and enjoyed a life-long close relation with her father are often ignored. The textual evidence for her career after leaving Rome is insubstantial and tells a fragmented story about the artist and her character. The Florentine businessman, art historian, collector and writer, Filippo Baldinucci (1625-1697), is an exception to the rule when he mentions her in his *Notizie* as a talented painter.³⁴⁰ Letters concerned mainly with commissions and financial debts present evidence of a business-minded person, apt at manipulating patrons. Notably, there are letters from Galileo Galilei who, for example, acted as her intermediary in dealings with Cosimo II de' Medici.³⁴¹ There are additionally some satirising poems written after her death which present her as promiscuous, showing that near contemporaries were concerned with sexualising her character.³⁴² As in the case of Caravaggio, whose physiognomy was connected to the darkness of his painting, her beauty was connected to her paintings and particularly to her characters. There are even poems (published in Venice 1627) where her beauty and glory are compared to that of her characters.³⁴³ With this type of evidence available, it is not strange that the scholarly emphasis has been concentrated on the well-documented and engaging trial and its possible impact on her work. However, the evidence adduced by Cohen suggests that Artemisia's engagement with her imagery is less clearly defined in psychological terms than Garrard has proposed. Other approaches to her paintings are also possible.

³³⁹ Cohen, 'The Trials of Artemisia Gentileschi', 47-75.

³⁴⁰ Filippo Baldinucci, *Notizie dei Professori del Disegno*, vol. 3, Ferdinando Ranalli (ed.), (Florence: V. Batelli e Compagni, 1846), 713.

³⁴¹ Bissell, *Artemisia Gentileschi*, 148-9.

³⁴² Bissell, *Artemisia Gentileschi*, 103-33.

³⁴³ Garrard, *Artemisia Gentileschi*, 7-8.

3.3.6: The Caravaggisti

One avenue of approach involves examining Artemisia's artistic practices and the ways in which she engaged with and adapted Caravaggio's imagery and methods.

Understanding Artemisia as a follower of Caravaggio, as one of the Caravaggisti, is only one of many possible ways of understanding of her works. It is, however, one that deserves some attention. By focusing on the construction of the imagery it is possible to reassess Artemisia Gentileschi as a professional artist instead of just seeing the imagery as that made by a raped young girl.

One problem in working on the Caravaggisti is that their relation to Caravaggio is not straightforward. This has led scholars to define and redefine what classifies an artist as one of the Caravaggisti or a work as Caravaggesque instead of focusing on the works themselves. Moir argues that Caravaggio's influence started spreading without his own agency before he left Rome, but that it was not until after 1610 that it could be more widely seen in art all over the city and spreading to other parts of Europe.³⁴⁴ Before 1600 there is no evidence of Caravaggio having had any followers; it is possible that he discouraged pupils because of his own denial of masters. Unlike Annibale Carracci, whose workshop operated through teaching and the collaboration of apprentices, Caravaggio did not teach in any traditional sense. Therefore, his followers have had to be judged in other terms.

Orazio and Artemisia have always been considered as Caravaggisti. This is mainly because of the visual features and subjects that their paintings have in common with those of Caravaggio, but also because of the actual documented relation between Caravaggio and Orazio. Beyond these, many other artists and painters have been considered and reconsidered as influenced by Caravaggio's works. In particular, there was a large group of Italian Caravaggisti fronted by Orazio, Orazio Borgianni (c. 1575-1616) and Carlo Saraceni (c. 1579-1620) which became more dominant and spread between 1605 and 1615.³⁴⁵

Bellori included the biographies of some of Caravaggio's followers, naming, for example, Bartolomeo Manfredi (1582-1622), Carlo Saraceni, Jusepe Ribera (1591-1652), Valentin de Boulogne (1591-1632) and Gerrit van Honthorst (1592-1656).³⁴⁶

³⁴⁴ Alfred Moir, *The Italian Followers of Caravaggio*, vol.1, (Cambridge, Mass.: Harvard University Press, 1967), 22.

³⁴⁵ See particularly Richard Spear, *Caravaggio and His Followers*, (Cleveland: The Cleveland Museum of Art, 1971), 1-38.

³⁴⁶ Bellori, *Le Vite*, in Hibbard, *Caravaggio*, 373.

Baglione wrote of Caravaggio's followers that they tried to copy from nature without knowing even the basics of art, which is particularly interesting as he was one of the first to be inspired by Caravaggio until he turned against him personally and artistically.³⁴⁷ Bellori perpetuated the view that Caravaggio, despite having some virtues and having had genius in painting from nature (instead of the *maniera*), had provided a method that in the wrong hands could result in substandard art: 'Just as certain herbs produce both beneficial medicine and most pernicious poison, in the same way, though he produced some good, Caravaggio has been most harmful and wrought havoc with every ornament and good tradition of painting.'³⁴⁸

In contrast, Vincenzo Giustiniani wrote an undated letter about painting in which Caravaggio is mentioned in the twelfth and best mode or way of painting, together with the Carracci and Guido Reni. This group is constituted by those painters who combined the tenth and eleventh modes, painting both from nature and imagination, with invention.³⁴⁹ Spear suggests that the lack of such invention is the reason why Caravaggio's followers were not as successful (he is making a value judgement about the quality of their work) as their master.³⁵⁰ This statement actually obscures a very complicated artistic relation. Many of Caravaggio's followers painted from life at the same time as they adapted his imagery and adopted several features of his style. While Spear notes that there is a clear contradiction in copying someone who criticised copying, the relation between the work of Caravaggio and the work of his followers is not straightforward. Furthermore, this is built on the false assumption that Bellori was indeed correct in stating that Caravaggio completely shunned the old masters, when in fact Caravaggio borrowed freely from several such sources.

Caravaggio's influence on other painters is often measured on the basis of two factors. Firstly, there was a predilection among these artists for choosing a particular type of subject matter. Judith, David and Goliath, genre scenes of musicians, card players or gypsies are very common. There are also several paintings of St Jerome, Mary Magdalene and even the Virgin and Child that are reminiscent of Caravaggio's

³⁴⁷ Baglione, *Le Vite*, in Hibbard, *Caravaggio*, 355.

³⁴⁸ Bellori, *Le Vite*, in Hibbard, *Caravaggio*, 372-3.

³⁴⁹ Vincenzo Giustiniani, 'From a Letter Written by Giustiniani to Amayden' in Robert Enggass and Jonathan Brown (eds.), *Italy and Spain 1600-1758: Sources and Documents*, (New Jersey: Englewood Cliffs, 1970), 16-20.

³⁵⁰ Spear, *Caravaggio and His Followers*, 9.

work. Secondly, the strong directional lighting and the colour schemes developed by these artists are often similar to those of Caravaggio.³⁵¹

Even though there are several similarities between Caravaggio's style and the adaptations of his followers there is little evidence that the Caravaggisti used his techniques of working. The biographers focus on and even overstate his dependence on nature and his rejection of artistic sources. Beyond the fact that he favoured working directly on a canvas with a posed model and that he supposedly shunned artistic copying, his actual technique is not well known. Close analysis of his paintings shows that he really did favour working directly on canvas. Alterations are often many and fundamental. He also used to incise the prepared canvas surface with some sort of sharp object (such as a stylus), most likely as a compositional device. In contrast to other painters, however, Caravaggio did not use a cartoon but made the marks as a beginning of the designing process. (Federico Barocci used to incise even the minuscule details of his compositions.) The incisions can be seen on close scrutiny of the canvas surfaces. They are clearly visible when standing in front of *Judith Beheading Holofernes*.³⁵²

As already noted, Orazio is known to have used the same method and taught it to his daughter. At least the first of Artemisia's versions of Judith seems to have been created directly on the canvas, as there are several major alterations. Furthermore, preparatory drawings are missing from the oeuvre of Orazio, Artemisia and Caravaggio. It is unusual for no drawings by an artist to have survived. However, lack of evidence does not necessarily prove the presence of one technique over another. Even if Caravaggio did not use preparatory drawings, witnesses in the Tassi trial mention Orazio drawing. Nicolò Bedino, who worked and lived in his house for some time, said that Orazio used to draw for frescoes in the house at Via Margutta.³⁵³ The trial records also suggest that Orazio used posed models; including his own daughter. Marcantonio Coppino, who spoke in favour of Tassi at the trial, gave a statement suggesting that Artemisia was used as a nude model.³⁵⁴ The Gentileschi's positions as Caravaggisti are thus slightly different from those of many of his other followers.

³⁵¹ Spear, *Caravaggio and His Followers*, 1-38.

³⁵² Keith Christiansen, 'Caravaggio and "L'esempio davanti del Naturale"', *Art Bulletin*, 68/3, 1986, 421-45.

³⁵³ Patrizia Cavazzini, 'Documents Relating to the Trial of Agostino Tassi', in Christiansen and Mann, *Orazio and Artemisia Gentileschi*, 432-44 at 437.

³⁵⁴ Cavazzini, 'Documents', 434, Marcantonio Coppino who prepared ultramarine in Antinoro Bertucci's pigment store claimed at the trial that Artemisia Gentileschi was a whore and that Orazio Gentileschi painted her nude and had people come up to see her.

Scholars are still looking for ways to connect Artemisia directly to Caravaggio, even though there is very little evidence to support a simple link.³⁵⁵ As described above, that Caravaggio and Orazio knew each other is fairly certain. There are similarities between the techniques they employed, they admitted to knowing each other at the libel suit and the court records show that they shared props, in this case a pair of wings and a capuchin habit.³⁵⁶ However, there is no evidence that Caravaggio met Artemisia or that she ever saw him work. Furthermore, it is uncertain how many of his paintings she had access to. For example, there is no textual evidence placing her in front of the *Judith Beheading Holofernes* which was in a private collection at the time. It is only the visual evidence that connects the two paintings and on this basis many writers have taken close connections between them and between the artists for granted.

An example of this kind of circumstantial association being taken as probable fact concerns the Cenci executions in 1599, where mother, daughter and brother were publicly punished for killing an abusive husband and father. Helen Langdon connects the Cenci beheadings with Leonardo's call to study those condemned to death in order to become a better artist. She states: 'Surely Caravaggio, remembering this advice, was there, perhaps with Orazio Gentileschi, and his young daughter, Artemisia'.³⁵⁷ This type of speculation is prevalent in modern scholarship on both Caravaggio and Artemisia Gentileschi and perpetuates the same type of reinterpretations of their works. The actual connection between the Caravaggisti and Caravaggio is more readily explored through their works.

³⁵⁵ Langdon, *Caravaggio*, 161.

³⁵⁶ A translation of Orazio's statement in the libel suit, Puglisi, *Caravaggio*, 419.

³⁵⁷ Langdon, *Caravaggio*, 161.

3.4: VIEWER ENGAGEMENT; THE ARTIST – CASE STUDY 1: JUDITH BEHEADING HOLOFERNES

3.4.1: The narrative

Freedberg's argument on universal empathetic aesthetic engagement has no need for discussions of narrative. For Freedberg the movements of the characters and the actions that they are subjected to are enough for any viewer to engage with the imagery.

However, the understanding of movement is certainly an important component of the mirror neuron activity and this is closely connected to understanding what a painting is about. This is also a focus for Alberti, Leonardo and Lomazzo as well as for Paleotti and Baronio. Thus, in a neuroarthistorical approach, narrative will play an important role. How the viewer understands and engages with the narrative is highly dependent on the depiction of movement and the human brain's capacity to respond to it.

In the Old Testament, Judith was a rich, wise, virtuous and beautiful widow. She saved her people from an Assyrian attack by entering the enemy camp and befriending the general Holofernes. He was seduced by her womanly charms and as he fell into a drunken sleep, she took up his sword and with two blows she severed his head from his body. Judith and her maid servant then placed the head in a sack and returned to their town. Holofernes' head was hung on the town wall. After realising what had happened, the enemy army fled and the people of Israel was saved.³⁵⁸ The story of Judith and Holofernes is from the Apocrypha and was, therefore, not considered to be the word of God. It was still used as a story to inspire faith and courage as well as a caution against arrogance and heresy. In hanging a painting of Holofernes' head on a wall, a patron mirrors the virtuous Judith who displayed the head of the heretic to caution the sinner or heretic enemy. The movements of the characters are important in understanding the narrative and consequently play a role in the responses of viewers.

3.4.2: Traditions of depicting the Judith narrative

There have been various traditions of depicting the Judith narrative; however, it is significant that the moment at which Judith decapitates Holofernes had not been commonly represented in painting or sculpture before Caravaggio painted his version.

³⁵⁸ 'Book of Judith' (The Apocrypha), *The Holy Bible* (containing the Apocrypha of the Old Testament) Revised Standard Edition, (London: Thomas Nelson and Sons Ltd., 1959), 65-81.

The more conventional type, of which Artemisia made two (one from 1618-19 and the more famous version made in c. 1625-7, figs. 57 and 58) and her father several (the more famous versions are from 1608-9 and 1621-4, figs. 59 and 60), depicts a particular moment of the aftermath of the killing, at which the head is placed in a sack or basket and carried back to Bethulia. Michelangelo's Judith, on a spandrel of the ceiling of the Sistine Chapel, carries the head high, leaving the lifeless body behind on a bed (fig. 61). Indeed, Botticelli, Mantegna, Titian, Tintoretto and Rubens are only a few of the artists who depict variations of the moments after the killing (figs. 62-66). The Caravaggisti also depicted this part of the narrative; Saraceni and Baglione (figs. 67 and 68) provide good examples. More rarely, Holofernes' severed neck clearly visible (Johann Liss, c. 1595/1600-1631, made an especially gory example of this, fig. 69). While these types of depictions may activate, for example, the cingulate cortex (reacting to pain) or the mirror neuron system (reacting to the handling of the head) the movement is not emphasised.

Giorgione's choice of depicting Judith with her foot on Holofernes' head severed on the ground is unusual (fig. 70). This is, however, a pose commonly adapted for David and Goliath. The Judith narrative has similar connotations to that of David and Goliath, involving an unlikely hero overcoming a powerful malevolent enemy through God's help. In the case of the Giorgione there is evidence that this severed head is actually the artist's self-portrait, just as Caravaggio depicted himself as Goliath toward the end of his life. As discussed earlier, Caravaggio depicted himself in several instances in the role of the evil character (following a tradition made notorious by Michelangelo). Indeed Caravaggio's relation to the villain Holofernes is complicated by the fact that he also considered his self-portrait as an appropriate model for the decapitated villainous characters Medusa and Goliath.³⁵⁹

Caravaggio's interpretation of the moment of beheading is strikingly atypical. There are very few earlier depictions of the act of cutting and none of these can be linked to Caravaggio. One famous and equally unusual example is Donatello's bronze sculpture of Judith with her arm and sword raised, supporting Holofernes' body against her leg, holding his head by his hair, ready to strike a second blow to his neck (fig. 71). There are also several versions of the subject made by artists subsequent to Caravaggio's painting. Interestingly, there do not seem to be any copies of his version,

³⁵⁹ Shearman, *Only Connect...*, 24.

whereas Artemisia's versions were copied by others several times. Bissell reproduces two oil paintings that used to be considered Artemisia's own work. Another oil painting done on touchstone is a pendant to a copy of Orazio's *David in Contemplation after the Defeat of Goliath*. While the two paintings complement each other in their subject matter, it is also likely that the two were commissioned to compare the work of father and daughter. There is also an engraving of Artemisia's version of the narrative from the late seventeenth century, suggesting a prolonged interest in her composition even though Caravaggism was no longer popular, mainly due to Bellori's disapproval.³⁶⁰ Caravaggio started a trend with his action-packed composition: subsequently Artemisia's version became very popular, perhaps even more so than Caravaggio's image.

The most notable examples of depictions influenced by Caravaggio's composition of *Judith Beheading Holofernes* are Elsheimer's version (fig. 72) and subsequently Rubens' now lost *Great Judith* (fig. 73). Neither of these artists is considered as a follower of Caravaggio, however, it is notable that both of them made a point of appropriating features of movement from his paintings. The small Elsheimer version (from 1601-3), which is clearly influenced by Caravaggio's painting, though on a very small scale, was owned by Rubens. The *Great Judith* is now known only through an engraving by Cornelius Galle the Elder (1576-1650). Since Rubens' painting is only known through this engraving, it is difficult to establish the direct influence of the Caravaggio.³⁶¹

In terms of viewer engagement it seems obvious that showing this particular event may increase the involvement the viewer may have with the image. A consideration of the operations of the human brain can give an explanation as to why this may be so. Firstly, the slicing of Holofernes' neck must activate area MT, thus the depiction is treated by the brain as having the potential to move. The hand movements of grabbing (in five hands out of six in Caravaggio's version) activate the mirror neuron system in the premotor cortex. The increased emphasis on expression, together with the sword going through the neck activates both the area of the human brain that deals with emotional expression and the area responding to pain. It instantaneously involves the limbic system and thus engages the viewer empathetically.

³⁶⁰ Bissell, *Artemisia Gentileschi*, 191-8.

³⁶¹ Bissell, *Artemisia Gentileschi*, 191-8.

3.4.3: Three versions of *Judith Beheading Holofernes*

As the three paintings of *Judith Beheading Holofernes* by Caravaggio and Artemisia are different from many other versions of this narrative by other artists it may be useful to have details about the commissions. However, there is little known about them and what is known does not betray the motives behind the choices made by Caravaggio, Artemisia or their patrons. Caravaggio's *Judith Beheading Holofernes* was painted in 1598-9 and was bought, perhaps commissioned, by Ottavio Costa. Costa was one of the most important papal bankers in the city and was rich as a consequence. He liked to spend his money on paintings. It is recorded that he also commissioned a youthful *St John the Baptist* (fig. 74) and a *Supper at Emmaus* which could be the version painted just before Caravaggio fled Rome, (fig. 75). Costa cared particularly for these works as he made a special mention of them in his will of 1632, advising his heir not to part with his collection of Caravaggio paintings.³⁶²

The context for Artemisia's viewing of Caravaggio's image is not clear. So far it has not been possible to establish a direct link between Artemisia or her father and Caravaggio's version of *Judith Beheading Holofernes*. When Artemisia painted the first and the second of her versions, in 1612 and c.1620 respectively, Caravaggio's version would have been in Costa's possession. The first of Artemisia's versions is convincingly placed in her early career. It has been seen as a copy of the Uffizi version; however, X-rays of the canvas reveal several compositional changes. This is unusual in a copy and the many changes also seem to correspond to what is known of the artist's working technique at the time.³⁶³

The second version of *Judith Beheading Holofernes* is mentioned in a letter from Artemisia to Galilei, which shows that Cosimo II de' Medici (1590-1621) received a version before his death on February 28th, 1621. Bissell suggests that, because of Cosimo's bad health and because Artemisia most likely was in Rome at the time, Galilei served as a middle man. Though Artemisia generally seems to have dealt with her patrons at first-hand, these complications would explain why it was Galilei who procured the canvas for the Duke who, according to the letter, liked the painting very much.

It is possible that Cosimo himself decided on the subject matter since he had a personal connection to it. In 1613 a Judith was included in a series of etchings of

³⁶² Langdon, *Caravaggio*, 102 and 166.

³⁶³ Bissell, *Artemisia Gentileschi*, 191-198 at 194.

religious battle scenes made by Antonio Tempesta (fig. 76). These compared the Grand Duke's victories to those of Old Testament heroes and heroines.³⁶⁴ There was also a family connection to the theme. Donatello's bronze *Judith and Holofernes* mentioned above (installed sometime between 1457 and 1467, fig. 71), and the complementary piece to his *David* (also installed between 1457 and 1467, fig. 42), had been owned by an earlier Cosimo de' Medici (1389-1464). Sarah Blake McHam has argued convincingly that the sculptures, which were made for the newly built Medici palace, were messages that the Medici family's role in Florentine freedom was comparable to the Old Testament tyrant slayers' role in keeping their people free.³⁶⁵ Of the three versions, Artemisia's second *Judith Beheading Holofernes* is the only one for which there is a recognisable link between the patron and the narrative. It is, however, unclear whether Cosimo knew Caravaggio's painting.

Because of the lack of documentary evidence for connections between Artemisia and Caravaggio's painting, it is important that the visual similarities between the works are emphasised before discussing the differences. Caravaggio's version is in horizontal format, with Holofernes on his stomach on a bed to the left and Judith and her maidservant in a separate group to the right. Judith's arms are extended. Her right is engaged in cutting through Holofernes' neck with a scimitar and the left hand grasps his hair, bending his head backward. Beyond depicting the active part of the narrative, Artemisia followed Caravaggio in representing the three-tiered bed, the features of Holofernes' face and Judith's outstretched arms. Artemisia also adapted the directional lighting, the limited space and certain details from the earlier painting. For example, Caravaggio has Holofernes' fist clutching the bedcovers and Artemisia has his fist grabbing the maidservant's clothes.

However, the differences in Artemisia's version are important, as is the increased emphasis she places on violent action. The composition is tighter than that of Caravaggio and the format of the canvas is vertical. The movement of Holofernes is particularly important as he has been turned on his back, grabbing the maidservant who is pinning him down from above. Judith has her knee up on the bed actively pushing Holofernes' head away as she saws through his neck with an entirely unsuitable sword. In Caravaggio's painting the maidservant is old and wrinkled, as a contrast to the young

³⁶⁴ Bissell, *Artemisia Gentileschi*, 213-6.

³⁶⁵ Sarah Blake McHam, 'Donatello's Bronze *David* and *Judith* as Metaphors of Medici Rule in Florence', *Art Bulletin*, Volume 83/1, (2001), 32-47.

Judith, whereas in Artemisia version she is depicted as a young woman. Caravaggio has his maid servant looking on intently, clutching the sack with her hands, whereas Artemisia's maid servant is helping Judith actively in her task. Caravaggio's Judith is younger and daintier than Artemisia's Judith, who has aged even further in the second version.

Otherwise, Artemisia copied her own earlier picture of the subject closely; the folds of the bedding, for example, are almost identical. Her second version is superior in quality compared to the first: the use of colour is more sophisticated and there is a greater attention to detail. It is important to note that the movements are almost identical. It is thus likely that she painted the second version in front of the first, probably while back in Rome where the first version was made. There is some evidence to support this point of view. The letter to Galilei concerning the painting states that it needed to be sent to the Duke in Florence, indicating that Artemisia and the painting were not in Florence at the time.³⁶⁶

Even though the two paintings were largely based on Caravaggio's version, they also display features from Orazio Gentileschi's work. A version of Judith and her maid servant conceived by her father in the same period could be the source for the character types in Artemisia's painting, notably the young maid servant. Even though there is also a possibility that Artemisia was influenced by Elsheimer's or Rubens' versions of the subject, the visual similarities to Caravaggio's image makes this the most likely source.³⁶⁷ It is important to emphasise that she followed Caravaggio in choosing the active part of the narrative at the same time as she changed the details of the movement and some of the poses of the characters. The action in her imagery is emphasised even further than in Caravaggio's version. While Caravaggio's Holofernes is caught off-guard, Artemisia shows him at the end of a losing battle, struggling against two women instead of one.

A couple more points are required about how the movements suit the narrative. Friedlaender pointed out that Judith's pose in Caravaggio's painting, especially the movement of her dress and her handling of the sword, is awkward, something he considers to be a flaw in Caravaggio's composition. He also draws attention to Holofernes' contorted upper body. These features seem to be the exact opposite of

³⁶⁶ Bissell, *Artemisia Gentileschi*, 148-9.

³⁶⁷ Bissell, *Artemisia Gentileschi*, 191-8.

‘realistic’ in their depiction.³⁶⁸ The movement of the dress can actually be explained as a compositional device as it follows from the bowing curtain above Holofernes’ head. As such it anticipates the direction of Holofernes’ head as it separates from his shoulders: it is destined to fall into the maidservant’s sack. It also mirrors the edge of Holofernes’ throat, which is emphasised through the black strip of her dress. Furthermore, it is possible that Caravaggio deliberately delineated Judith’s pose as a slayer in an unconvincing manner. She was, after all, successful in her errand not because of her skill with a sword but, rather because of her faith: the force of the story lies in that she overpowered a much stronger enemy, with the help of God. The narrative involves problems for the artist, as a person who cuts someone’s throat is not necessarily the most obvious exemplar of virtue. It is possible that it was because of the difficulty of realizing a convincing heroine in the act of severing the head of an enemy that the aftermath of the moment of execution was more commonly depicted.

This ambiguity shows in the imagery. Caravaggio’s heroine can be described as reluctant. Her gaze is almost impossible to determine. Close examination shows that she does not meet Holofernes’ eyes and she might not even be looking at the gash in his neck, that she avoids looking at the gruesome scene. Her facial expression is ambiguous. Her nose is red, there is a hint of redness to the skin around her eyes (there may even be a faint trace of a tear from her eye) and the deep wrinkle between her eyes shows distress, while the mouth is inexpressive. She does not look particularly dangerous even though her actions confirm her as such. Holofernes’ expression is more obvious. He looks shocked, as if he has been caught off guard, which is further substantiated by the fact that he is not fighting back.

Artemisia’s Judith is more convincing as a slayer as she is more active. She is closer to the victim; she has her leg up on the bed and she is helped by the maidservant pushing Holofernes down. On the other hand, Holofernes is also more active. He is depicted as dangerous and powerful enough to need two people to hold him down. The blood on the coverlet also suggests that he has recently moved from a position further in on the bed. Whereas the first version has a bloodstained sheet, the second displays a virtual blood-bath, with gore shooting from Holofernes’ neck in Judith’s direction, splattering all the way up to her chest. The second version is even more violent than the first. The action and the violence are augmented from Caravaggio’s version through

³⁶⁸ Friedlaender, *Caravaggio*, 159.

Artemisia's first version to her second depiction of the subject matter. It is clear that in comparison to earlier versions, these would more directly engage the viewer through the movement of the characters.

Considering that Artemisia has amplified the action in her images (first in relation to Caravaggio's painting and secondly in relation to her first version), it is very likely that she understood the effect of movement on the viewer, and that she was empathetically engaged with Caravaggio's imagery. It is also possible that, as a practicing artist, she engaged through the maker's marks, as suggested by Freedberg. There are several visible incisions in Caravaggio's version. There are incisions along Judith's lower arm, the neck of the maid servant and crucially around Holofernes' head that are still visible to the naked eye. Furthermore, there is one particularly bold brushstroke visible underneath the more detailed brush work, on the sleeve of Judith's left arm.

It must also be noted that both versions by Artemisia have suffered intentional damage. The first painting is not in good condition. It has been reduced in size and a part of Holofernes' leg that is visible in the second version is not present in the first. Although Bissell has painstakingly compared later copies of the image as well as the later version, the original size cannot be determined. More importantly, the mouth and neck of Holofernes have been retouched. Bissell hypothesizes that an owner along the way has tried to soften the horror of the original expression and goriness. Even though it is not certain when this retouching occurred, it may testify to a strong reaction from a viewer.³⁶⁹ It is interesting that the second version shows evidence of even stronger reactions. It has been the focus of more immediate physical damage. The face, arm and head of Holofernes have gashes, which is further evidence of an emotionally involved spectator, possibly placing himself in Judith's place through slashing Holofernes with his own weapons.³⁷⁰

As a strategy for making the narrative more accessible to viewers, emphasising the action makes sense, both in terms of the art theory of the time and in terms of a modern understanding of the functioning of the brain. The activation of mirror neurons, pain areas and expression-recognition areas of the brain, through the incorporation of movement into the depiction, would make the narrative more recognisable as well as more emotionally and empathetically engaging.

³⁶⁹ Bissell, *Artemisia Gentileschi*, 191-198.

³⁷⁰ Bissell, *Artemisia Gentileschi*, 213-16.

3.5: CONCLUSION

The artist is crucial in the discussion of viewer engagement. Part 3 has demonstrated that Shearman's theory about the artist as a particularly engaged spectator is supported by data on mirror neurons and other neurons that function similarly. In the case of Caravaggio and Artemisia Gentileschi, movement, gesture and expression are important factors in their engagement with imagery. As makers they provide good visual evidence for how they looked at another artist's work. Caravaggio chose an unusual moment in the Judith narrative when he painted the gruesome act of decapitation. Artemisia followed him in depicting the same episode in the narrative and she appropriated several features from his interpretation. She amplified the violence in the imagery twice; first in relation to Caravaggio's composition and then later in relation to her first version of the theme. By depicting this particular part of the narrative, both artists focused the attention on the crucial moment, making it easily understood, as well as engaging the viewer more directly. As various mirror neuron systems respond to the facial expressions, the contorted limbs of Holofernes, the grabbing of the sword and the violence and pain of the sword cutting through the neck, this moment of the narrative was a more efficient and engaging way of communicating the story. That Artemisia's paintings were frequently copied evidences the popularity of the imagery. That they show evidence of physical damage to the figure of Holofernes suggests an emotionally involved viewer who was empathising with Judith.

Freedberg presents some of the data on mirror neurons in order to show that empathy is based on an automatic response in the human brain. He suggests that the focus on cognitive and culturally specific explanations of aesthetic responses is misguided and that the mirror neurons provide the base for cognitive empathetic responses. However, separating the cognitive from the emotional factors may be more misleading than it is helpful. Beyond enabling viewers to empathise with characters in painting, mirror neurons are also crucial in action understanding, aiding the viewer in understanding the narrative.

There is little textual evidence of empathy relating directly to Caravaggio. His biographers, with their dramatised accounts of the artist's life, have given rise to some unhelpful trends in modern scholarship. The biographers emphasise his character and his realism, and, taking these accounts as central pieces of textual evidence, modern scholars have tended to follow. Similar problems occur in the treatment of Artemisia.

Both artists' paintings have thus been analysed through connecting the imagery directly to the dramatic aspects of their makers' lives or characters. Even though such an analysis may contain an assumption of empathetic engagement in the creative process, it constrains the understanding of the works. Artemisia's relation to Caravaggio is often taken for granted even though Caravaggio's relation to his followers is not straightforward. Artemisia and her paintings can only tenuously be connected to him and his work through the historical evidence. This makes the visual components extremely important in establishing how she looked at and appropriated Caravaggio's work. Considering Artemisia as a professional artist, and not simply as a rape victim, is thus important. It restates the relation between one Caravaggist painter and her source material, showing serious engagement with the imagery she employs.

How Caravaggio's features were used by his followers is an important issue and movement as a category necessitates a reconsideration of the impact of Caravaggio's work. While Rubens and Elsheimer are not generally considered as followers, it is clear that Caravaggio's emphasis on movement was important beyond the recognised group of followers.

PART 4: VIEWER ENGAGEMENT: THE PATRON AND COLLECTOR

4.1: INTRODUCTION

4.1.1: The collector as a specific case

Baxandall states that ‘the primary use of the picture was for looking at: they were designed for the client and people he esteemed to look at, with a view to receiving pleasing and memorable and even profitable stimulations’.³⁷¹ Baxandall’s focus on the patron and his engagement with the imagery makes clear that his response to a work of art is crucial. Patrons are individuals with the authority to make or break artistic careers. While Caravaggio’s posthumous reputation has been heavily influenced by biographers with little admiration for his technique, his success in early modern Rome was due to a series of powerful, educated and wealthy collectors. One of the most important of these was Vincenzo Giustiniani. His emotional, empathetic and intellectual engagement with the works demonstrates a clearly different view of Caravaggio’s work in comparison to that presented by the biographers.

Vincenzo Giustiniani was Caravaggio’s most enthusiastic patron. His choices of works of art for his collection and his display of these pieces can help art historians reconsider the effects of the paintings on viewers. In many ways Giustiniani’s engagement with Caravaggio’s work would have been like that of other people. On the other hand, a consideration through Baxandall’s ‘period eye’ reveals a highly skilled, intellectual and influential patron. To analyse his responses, then, we have to consider both the conscious skills and interests so privileged in Baxandall’s account and the automatic, emotional and empathetic responses thrown into relief by the concept of the contextual brain.

Besides Giustiniani’s general enthusiasm for Caravaggio, there are two particular reasons for why his engagement is significant. Firstly, three of his Caravaggio paintings are particularly prominent in debates regarding the artist. All three paintings are discussed in terms of Caravaggio’s realism. *Victorious Cupid* (fig. 12) is connected to Caravaggio’s sexuality; *St Matthew and the Angel* (fig. 13) is discussed in terms of Caravaggio’s treatment of the subject matter and *Doubting Thomas* (fig. 14) is

³⁷¹ Baxandall, *Painting and Experience*, 3.

associated with the artist's relation to empiricism. Interestingly all three images have a focus on movement. Secondly, Giustiniani wrote a statement specifically on Caravaggio's and Annibale Carracci's contributions to art, in which he discusses them as equals who both use nature and the imagination to produce good art and additionally there is a detailed record of Giustiniani's collection in an inventory from 1638. These two documents will constitute important pieces of evidence throughout this investigation.³⁷²

The choice to focus on Giustiniani as a collector and these three paintings has several implications. Firstly, it allows for a continued discussion of how Caravaggio referenced other artists. Giustiniani seems to have been aware of and to have promoted competition in order to enhance the arts. Thus, in this part, Caravaggio's use of movement is discussed in relation to both that of Annibale Carracci and of Michelangelo. This reliance on other source material was in fact at the centre of Caravaggio's technique. His 'realism' will also be analysed further, especially since Giustiniani realises that Caravaggio's and Annibale Carracci's skills are similar. Beyond working practices, the lifelikeness in Caravaggio's work is further explored, since it was appreciated by some of his critics and presumably Giustiniani as well. Analysing Caravaggio's depictions of movements and expressions, as developed in response to other artists' work, as a part of this lifelikeness situates viewer engagement at the core of Caravaggio's 'realism'.

Display strategies are also a significant factor in Part 4. This is one of the areas in which a collector's decisions could make a difference as to how paintings impacted on viewers. Strategies incorporating revelation and surprise become more important in early modern collection display and both Giustiniani and Borghese use this strategy to engage their visitors. Neuroscientific data will be used to show how the human experience of revelation and surprise is connected to a close attention paid to the object of surprise and how this affects the viewer experience. These devices can be used to make the viewer react emotionally as well as aid understanding of the works. The collector is both viewer and orchestrator of viewer experience.³⁷³

³⁷² Giustiniani, 'From a Letter', 16-20 and a series of publications by Luigi Salerno, 'The Picture Gallery of Vincenzo Giustiniani I: Introduction', *The Burlington Magazine*, 102/682, (1960), 21-27, 'The Picture Gallery of Vincenzo Giustiniani II: Inventory, Part I', *The Burlington Magazine*, 102/684, (1960), 92-105 and 'The Picture Gallery of Vincenzo Giustiniani III: The Inventory, Part II', *The Burlington Magazine*, 102/685, (1960), 135-59, for a translated version of the inventory with a commentary.

³⁷³ Onians, 'I wonder...', 11-34.

Part 4 will chiefly be concerned with the collections of paintings in the home of the patrons Vincenzo Giustiniani and his brother Benedetto (1554-1612). However, Scipione Borghese, Francesco Maria del Monte and Ciriaco Mattei (1545-1614) are included for comparative purposes and also in order to establish trends in acquisition methods, display strategies and relations with artists. The reason for discussing the double category of collector and patron becomes clearer when examining these individuals since the types of acquisition vary. Caravaggio's works were acquired through; purchase of an already finished product, commissions with varying amounts of input, donations by the painter, rescuing works after rejection, obtaining works as gifts (wanted and unwanted) or confiscating works from other owners.³⁷⁴ Further, the collections differ in composition. While all these patrons owned and cherished works by Caravaggio and Carracci, Vincenzo Giustiniani also developed an interest in the French classicism of Poussin and one of the main components of Scipione Borghese's collection were his sculptures by Bernini.

The features of movement, lifelikeness and surprising effects were endorsed by Caravaggio's patrons. Throughout this part of the thesis, it will be clear that Giustiniani's consciously developed cognitive skills were advanced and important in his relations with artists and the acquisition of works. However, this part will also reveal that automatic, emotional and empathetic responses were equally important in the appreciation of the works of some of the most important artists in early-seventeenth-century Rome.

³⁷⁴ Salerno, 'The Picture Gallery of Vincenzo Giustiniani – 1: Introduction', 21-27, and Anna Coliva, 'Scipione Borghese as a collector', in *The Borghese Gallery*, Paolo Moreno and Chiara Stefani (eds.), (Milan: Touring Club Italiano, 2000), 16-23.

4.2: A NEUROARTHISTORICAL APPROACH TO COLLECTING

4.2.1: Collecting as a human behaviour

In beginning to consider the collectors' contextual brains it is crucial to realise that collecting behaviour is not an exclusively cognitive or cultural practice. The urge to collect is a pervasive human behaviour. Not all humans are collectors, but the collection habit is based in evolutionarily developed features of the brain.³⁷⁵ This is not to say that collecting habits over the globe are the same. What is collected, how it is collected and how it is treated after collection, including organisation, display and rationalisation of behaviour, differ greatly.

Neuroscientific research concerning collecting has involved humans and other animals, as hoarding practice is relevant to many species. Indeed, human collecting behaviour is an extension of the urge to hoard (common throughout the natural world), although not all aspects of human collecting can be accounted for by reference to hoarding behaviour. For example, completing and organising the collected material are not necessarily inevitable parts of hoarding behaviour, though it is notable that at least the arranging of objects after collection can be seen in other species. The hoarding urge is evolutionarily beneficial to various creatures as it facilitates survival through the accumulation of resources that are scarce at other times of the year. Art collecting can be seen as a superfluous development of this urge (in conjunction with other related traits).

Hoarding tendencies are common throughout the natural world (12 families of bird, 21 families of mammals and an unknown but large number of insects have been recorded hoarding or caching).³⁷⁶ Most often the hoarding concerns storing food, however; accumulating for decoration is not an exclusively human trait. The bower bird's decoration of its nest to attract a partner was made famous in art history by Gombrich (fig. 77).³⁷⁷ Hoarding does not always have a clear evolutionary advantage; so, for example, experiments on hamsters have shown that they are more likely to hoard and cache brightly coloured glass beads than food.³⁷⁸ It is important to note that the

³⁷⁵ Steven Anderson, Hannah Damasio, and Antonio Damasio, 'A Neural Basis for Collecting Behaviour in Humans', in *Brain*, 128/1, (2004), 201-12.

³⁷⁶ Anderson, Damasio, and Damasio, 'Collecting Behaviour', 201-12.

³⁷⁷ Gombrich, *The Sense of Order*, 6.

³⁷⁸ L. R. Hammer, (full name not available), 'Further Hoarding Preferences of Hamsters', *Psychonomic Science*, 26, (1972), 139-40.

urge to collect colourful beads would most likely not have been exercised in the hamsters' natural environment and that in a similar way to humans the object collected does not necessarily have an evolutionary advantage, while the behaviour does.

The human collecting habit has been a subject of investigation in the neurosciences mainly for the reason that excessive hoarding is an aspect of many medical conditions. The increased urge to collect has been seen not only in people who have suffered brain damage, but also in patients with OCD (obsessive-compulsive disorder), HSE (herpes simplex encephalitis), schizophrenia, anorexia and Tourette's syndrome. Areas of the cingulate gyrus often show lower glucose metabolism and decreased activity in all these conditions. Decreased activity in or damage (usually in the form of lesions) to the mesial frontal region (in the frontal lobe) and related areas of the cingulate cortex has also been connected to uncontrollable hoarding. Neuroscientists have suggested ways in which this data might be interpreted on the basis of other knowledge about the brain. They proposed that the urge to hoard, which is most likely located in the subcortical areas (this is where hoarding urges are located in many other animals, such as rats), is inhibited by the frontal cortex, an area known since the nineteenth century to be critical for the selection of actions. The patients displayed two main traits of the hoarding/collecting urge: the need to acquire new things and an inability to throw things away.³⁷⁹

Damage to these patients' frontal cortices has been connected to the increase in hoarding behaviour even to the point of it being detrimental to the individual. Subjects were observed hoarding useless objects, for example broken furniture, appliances or old news papers, despite negative impact on their lives. In many cases, hoarding encroached on the environment of the subjects. The activity of collecting itself became all consuming and in some cases patients even stole to satisfy their desire to acquire objects. One case involved a man who before damage to his frontal lobe would occasionally collect corn on a field to feed his chickens. After the damage, he collected corn as often as he possibly could and stored it until well after it had rotted and attracted rats. He also started to collect scrap metal and was unwilling to discard of any of his collected items. Research on the frontal cortex suggests that it is involved in regulating behaviour, something that is vital for social interaction. It would most likely not be evolutionarily sustainable for humans to give in constantly to their urges for food or sex,

³⁷⁹ Anderson, Damasio, and Damasio, 'Collecting Behaviour', 201-12.

for example. In normal collection behaviour the frontal cortex regulates the collecting, whereas without it the hoarding becomes socially intrusive.³⁸⁰

Unfortunately there has been no neuroscientific research (as far as I have been able to ascertain), on normal collecting habits among human beings. The complexity of the phenomenon means that several brain regions are involved. Research on hoarding does not throw light on treatment after the item has been accumulated. There are aspects of collecting habits, for example, organising, displaying and completing that could also be discussed. Notably these are also present in the bower bird's decoration of his bower, in order to attract a partner. Such activities are thus most likely connected to the hoarding activity in the brains of the birds and more specifically human beings.

In discussing collecting as a human behaviour it is necessary to acknowledge the biological factors. The contextual and biological factors are not even easily distinguishable (as exemplified by the bower bird decorating his nest) and the biological and contextual factors necessarily impact on one another. When discussing the collectors of Caravaggio's works it is therefore important to remember that their behaviour, while also being motivated by religious, intellectual, economic and social factors, has an underlying emotional component.

4.2.2: Movement and touch in the works of Caravaggio, Carracci and Bernini

Resuming the focus on the viewer engagement of the collector, it is time to consider the features of movement and touch in the commissions of three of the most popular artists in the early seventeenth century: Caravaggio, Annibale Carracci and Bernini. The three paintings by Caravaggio used in the case study are Caravaggio's *Victorious Cupid* (fig. 12), *St Matthew and the Angel* (fig. 13) and *Doubting Thomas* (fig. 6). These three were particularly appreciated by their owner. Discussed at length by modern scholars, they have also become exemplars of particular topics in research on Caravaggio. *Victorious Cupid* has been discussed as evidence for Caravaggio's (and his patron's) sexuality.³⁸¹ *St Matthew and the Angel* is discussed in terms of social realism and Caravaggio's rethinking of religious subject matter. It is also one of the paintings known for being rejected, in this particular case, by the clergy in S. Luigi dei Francesi.³⁸² *Doubting Thomas* is used as a marker of Caravaggio's empiricist realism.³⁸³ One common feature

³⁸⁰ Anderson, Damasio, and Damasio, 'Collecting Behaviour', 201-12.

³⁸¹ See for example Hibbard, *Caravaggio*, 155-60.

³⁸² See for example Friedlaender, *Caravaggio*, 96-100.

³⁸³ See for example Spike, *Caravaggio*, 123.

of these three images is that they have an emphasis on tactility. Understanding how the depiction of touch in these paintings would engage the viewer may throw some light on the categorisations already used for his work by art historians.

When *St Matthew and the Angel* was rejected by the priests of S. Luigi dei Francesi, Giustiniani (who was involved in the commission) took it off their hands and into his own collection. The image was replaced by another canvas with the same subject matter; however, much of the emphasis on touch evident in the first image is absent in the second version. In the first painting, the angel is shown manually guiding St Matthew's hand as he writes down the word of God. The intimacy of the scene is created through the touch of the angel and its proximity to the aged saint. In the *Victorious Cupid* tactility is emphasised through the juxtaposition of hard objects, like the tools and the armour, and the softness of other features such as the skin of the boy Cupid, the sheet draped over the table, and his wings, one of which is touching his thigh. In *Doubting Thomas* the emphasis on touch is ever more important as the saint pushes his finger into the wound in Christ's side.

All of these significant touches are experienced by the viewer through neurons that behave very similarly to mirror neurons. A team of neuroscientists (Keysers et al.) demonstrated how both the actual touch of a leg (not seen by the person examined) and the seeing of someone else's leg being touched activated neurons in the secondary somatosensory cortex (fig. 77).³⁸⁴ Subsequent experiments showed that touch considered more widely, including the observation of inanimate objects touching and humans being touched by objects (rather than hands), had the same effect on the brain. Tactility as a phenomenon is thus treated mainly in one area of the brain that links any seen touch to the experience of touch. The researchers connected this 'tactility' link and empathetic responses. The team calls the neuron function 'touching sight' as the data shows how sight can be a vehicle for understanding touch through this empathetic link. This is prominent in the article as the researchers also term their findings 'tactile empathy' (note that this 'empathy' does not necessarily have an emotional component).³⁸⁵ While the researchers use the example of a spider crawling across James Bond's chest, the implication for painting is the same. Thomas's finger prods the side of Christ and even though the viewer cannot physically touch the wound with a finger,

³⁸⁴ Christian Keysers, et al., 'A Touching Sight: SII/PV Activation during the Observation and Experience of Touch', *Neuron*, 42, (2004), 335-46.

³⁸⁵ Keysers, 'A Touching Sight', 335-46.

(s)he can experience touch through sight. The same applies to *Victorious Cupid* and *St Matthew and the Angel*.

Caravaggio's paintings are not isolated cases. Annibale Carracci also shows a preoccupation with movement and touch. This is significant as the two artists have been considered as radically different in their approaches and practices. Annibale Carracci's first commission in Rome after arriving from Bologna was the ceiling of the Farnese Gallery, depicting the Loves of the Gods (Love Conquering All, fig. 79). The finished product serves as an invaluable point of reference for Caravaggio's *Victorious Cupid* as the latter most likely constitutes a response to Annibale's work. The ceiling was certainly one of the most important commissions the Carracci were to receive in Rome.³⁸⁶

Bellori, who promoted Annibale Carracci as the antithesis to Caravaggio, described the ceiling as depicting Love Triumphant. On the basis of the putti in the corners he further argued that it is Sacred Love that triumphs. In a detailed analysis of both the iconography and Bellori's interpretation of it, Dempsey claimed convincingly that the victor is not Sacred but Earthly Love. He argues for a reading of the ceiling that takes wit, irony and eroticism into account.³⁸⁷

The main panels around the upper walls all have touch at the core of their compositions. Diana is embracing the sleeping Endymion, Anchises is tenderly holding Venus's leg while he removes her shoe, Hercules' and Omphales' legs are entangled and Jupiter's hand clasps Juno's thigh. All these touches are located close to or at the centre of the four images (figs. 80-83). The putti fighting and embracing in the corners are equally physical in their actions (figs. 84-85). These examples would all engage the viewer through mirror neuron activity as well as through the 'touch' neurons in the somatosensory cortex. Touch is also emphasised in the smaller details of the imagery, for example the herms above the putti not only 'hold up' the ceiling (recalling Vischer's columns and Michelangelo's *Prisoners*) but also clasp each other's arms. There are also other characters who hold on to pieces of cloth, corners of the panels or garlands. It is thus not strange that touch would also feature in Caravaggio's *Victorious Cupid*.

Two of the main panels flanking the middle scene would also activate the 'movement' neurons in area MT and the premotor cortex mirror neurons. The middle

³⁸⁶ Hermann Voss, *Baroque Painting in Rome*, [1925], rev. and trans. Thomas Pelzel, (San Francisco: Alan Wofsy Fine Arts, 1997), 133-75.

³⁸⁷ Charles Dempsey, 'Et Nos Cedamus Amori': Observations on the Farnese Gallery', *The Art Bulletin*, 50/4, (1968), 363-74.

scene shows the Triumph of Bacchus and Ariadne (fig. 86) while the flanking panels show depictions of Pan and Diana and Mercury and Paris (figs. 87 and 88). In the latter two panels movement is crucial. Upward movement in Pan giving Diana wool and downward movement in the Mercury giving Paris the Apple of Discord engage the viewer through the implied directional movement as well as through goal-oriented hand movements. In both panels, the viewer sees the scene just before the gifts are received. It is very likely that the ‘movement’ neurons and the mirror neurons, as activated by this immanent giving of the apple and the wool, make the panels more dynamic to the viewer.

Another very apt practitioner in this area is Bernini who made both touch and movement integral aspects of his sculptures. Scipione Borghese, who commissioned a number of works in which touch played a central role from the sculptor, was also a keen collector of Caravaggio’s work. Bernini is thus discussed here as an example of how movement and empathetic engagement with works continued to be important in the seventeenth century.

Scipione built the Villa Borghese on some land just outside the walls of Rome expressly to hold his collection of paintings and antique sculpture.³⁸⁸ In 1621 he commissioned his first work by Gian Lorenzo Bernini and displayed this and several subsequent works in this new villa. The *Rape of Proserpine* (fig. 89) was the first commission and also the one that most emphatically focuses on touch. As Pluto’s hands clasp Proserpine’s flesh, her skin gives way to his fingers. This effect functions as an index of Bernini’s quality as a sculptor, as the hand, flesh and skin are made of marble that was shaped by the sculptor. It is marble skin and flesh that ‘gives way’ to the touch of a marble hand, and yet the viewer understands and even has a simulated experience of the touch of flesh on flesh through the ‘touching sight’ neurons. Movement is equally crucial in the work of Bernini and this sculpture demonstrates well the dynamic poses he was able to produce. Emotional engagement and response to facial expressions are also present, as Proserpine’s tears flow from her eyes and her stone lips are parted as if she was about to cry out. The prominence of movement in these three artists’ works suggests that patrons were interested in this particular feature. It would also seem that movement as a part of making the works more ‘alive’ or more engaging is a component

³⁸⁸ Plans were made soon after his uncle Camillo was elected Pope Paul V in 1605, but the main part of the work was carried out in 1612-3. Kristina Herrmann Fiore, ‘Borghese’s New *All’antica Villa*’, in Paolo Moreno and Chiara Stefani (eds.), *The Borghese Gallery*, (Milan: Touring Club Italiano, 2000), 24-31.

in showing the artist's skill, something that was crucial in the competitions with other artists.

4.2.3: Baroque categorisation

It is clear that all three artists placed a focus on movement. This is interesting as they generally are considered as very different in their approaches. While all three are recognised to have produced new developments in their respective arts, Caravaggio is generally positioned as the advocate for 'realism', Carracci is presented as Caravaggio's antithesis with his 'classicism' and, finally, Bernini is situated as the epitome of 'baroque'. It is necessary here to consider this type of categorical differentiation, as this thesis considers the artists as similar in their emphasis on movement.

'Caravaggio, in contrast to Annibale Carracci, is usually considered a great revolutionary.'³⁸⁹ Wittkower begins his chapter on Caravaggio with an immediate comparison to Carracci. He continues with a discussion on Giustiniani's patronage of both artists and his letter about painting, in which he places both artists in the best category of painters. This group includes those who combine painting from imagination with painting from a real object. Wittkower disagrees with the comparisons of Caravaggio and Carracci that place them in opposing categories, representing, for example, naturalism as opposed to eclecticism, or realism as opposed to classicism. Nevertheless, he then continues by adopting the same type of classifications. He simply modifies 'classicism' through adding adjectives: 'Once again we can savour those virtues in Annibale's bold and forthright 'classicism' which were inaccessible to the individualist and 'realist' Caravaggio'.³⁹⁰ Both artists are included under the larger subheading 'The period of transition and the early baroque' encompassing the period circa 1600 to circa 1625. He finishes the chapter by saying that 'Late Mannerist', 'Transitional Style' or 'Early Baroque' are terms that are used for want of better ones.³⁹¹

Waterhouse makes the same type of comparison in the beginning of his chapter on Caravaggio. He places the two painters safely within the 'baroque' brackets, as he sees the big change in art starting with the installation of Pope Clement VIII in 1592.

³⁸⁹ Wittkower, *Art and Architecture*, 45.

³⁹⁰ Wittkower, *Art and Architecture*, 55.

³⁹¹ Wittkower, *Art and Architecture*, 109.

Caravaggio is compared to Annibale Carracci in the context that both artists broke away from ‘mannerism’, albeit in very different ways. In the following section he remarks that Caravaggio has been uncritically credited with a role in history equal to those of Aristotle and Lenin. Both Waterhouse and Wittkower point to supposed deficiencies in Caravaggio’s technique; for example that he did not learn how to paint fresco or pay attention to drawing. Caravaggio’s revolutionary persona is identified by Waterhouse as one he built for himself to combat insecurity. It is not until he discusses Caravaggio’s religious paintings that he applauds his style as both profoundly emotional and original.³⁹²

It is almost half a century since these two writers examined the art of Rome around 1600 and their observations still influence scholars working today. Even Varriano does not quite know how to reconcile Giustiniani’s categorisation of both artists as belonging to the same group with the more common distinction between ‘realism’ and ‘classicism’.³⁹³ These categories have coloured modern scholarship. Writers on baroque painting and biographers of the two artists have found it difficult to come to terms with two so apparently different approaches co-existing. In proclaiming the artists’ differences, it is especially problematic that one of the artist’s most enthusiastic collectors, Giustiniani, regarded the two as belonging to the same group.

Giustiniani’s judgement is now accepted, as it is clear that both artists worked from a study of both nature and imagination. Caravaggio was very aware of the old masters and studying from nature was central to the training at the Carracci Academy. So, although categorized as a realist, Caravaggio borrowed various poses from Michelangelo (for example God’s hand in the Sistine Chapel ceiling which becomes Christ’s hand in Caravaggio’s *Calling of St Matthew*, fig. 1), while the classicist Annibale Carracci painted genre scenes like the famous *Bean-eater* (fig. 90). Comparing Caravaggio’s *Cardsharps* (fig. 51) to Annibale’s *Assumption of the Virgin* (fig. 91), one might be tempted to confirm the traditional labels. However, comparing Annibale’s *Bean-eater* to Caravaggio’s *Entombment of Christ* (fig. 16) could easily reverse that judgement. These are both inappropriate examples for comparison, however, as the paintings belong to different genres. A more suitable comparison, for example Annibale’s *Assumption of the Virgin* to Caravaggio’s *Conversion of St Paul*

³⁹² Ellis Waterhouse, *Italian Baroque Painting*, (London: Phaidon, 1962), 21 and 25.

³⁹³ Varriano, *Caravaggio*, 3.

(fig. 15), reveals that the popular categorisations of the two artists that have been so persistent are in desperate need of revision.

If making opposites of the artists is problematic, bracketing both under the definition ‘baroque’ is both impractical and unhelpful. It is not strange that Wölfflin does not mention either of the artists in his comparison between ‘Renaissance’ and ‘Baroque’. As he sets up his opposing categories to determine what ‘baroque’ style is in contrast to what came before, he completely ignores two of the most important painters of the time-span he is looking at.³⁹⁴ Hermann Voss, on the other hand, in writing about Roman Baroque also has problems accounting for Caravaggio’s break with tradition and writes that he rose ‘above temporal limitations to attain enduring greatness’,³⁹⁵ as he went beyond the conventions of ‘mannerism’. In contrast, he has no problem situating Carracci in a long standing tradition of ‘classicism’ in Rome.³⁹⁶ Germain Bazin provides an unconvincing solution to the problem.³⁹⁷ In his *The Baroque, Principles, Styles, Modes, Themes*, the ‘baroque’ is defined as an age, a time period. In this time period he includes minor style categories, such as ‘baroque’, ‘classicism’ and ‘realism’. Carracci and Caravaggio belong in the second and third category respectively.

These problems when applying the term ‘baroque’ to the two artists might suggest that the concept is completely redundant. Neither Langdon nor Boschloo discuss the concept ‘baroque’ at all and both of their approaches have furthered research on the artists. However, in unpacking the term ‘baroque’ many useful terms arise that can help the art historian look at the paintings. Hyde Minor separates concepts such as movement, emotion, dramatic effect, marvel and many more.³⁹⁸ He does this in an attempt to save ‘baroque’ as a term and uses many of Wölfflin’s oppositions in the process. I would suggest that even though the term ‘baroque’ is insufficiently focused to be of any use in modern research, concepts that used to be implied by that term such as ‘movement’ and ‘emotion’, still need to be considered in order to discuss and understand both Caravaggio and Annibale Carracci under the same heading.

In achieving an emotional and bodily engagement of their audiences, Carracci, Caravaggio, Annibale Carracci and Bernini employed movement as a crucial feature in

³⁹⁴ Heinrich Wölfflin, *Principles of Art History: the Development of Style in Later Art*, [1932], (New York: Dover Publications, 1950).

³⁹⁵ Voss, *Baroque Painting in Rome*, 73.

³⁹⁶ Voss, *Baroque Painting in Rome*, 134.

³⁹⁷ Germain Bazin, *The Baroque, Principles, Styles, Modes, Themes*, (London: Thames and Hudson, 1968).

³⁹⁸ Vernon Hyde Minor, *Baroque and Rococo: Art and Culture*, (London: Laurence King, 1999).

their works and all three show close consideration of audience reaction. In the discussion of viewer engagement, it is thus necessary to discard many of the suppositions that are integral to terms such as ‘realism’, ‘classicism’ and ‘baroque’, while features of the works, such as movement, can be discussed in their own right. The terms necessarily form a part of the history of art historical writing and analysis of the works by Caravaggio, Carracci and Bernini. In discarding the terms it is not necessary to discard the features they allude to.

4.2.4: Surprise in the works of Caravaggio, Carracci and Bernini

While movement in the form of touch is extremely important in Caravaggio’s paintings in the Giustiniani collection, surprise enters as a second feature, one which is present both as a depicted facial expression as well as a component of display strategies more generally. On a basic level, surprise is a human response which occurs when the brain is expecting one thing and is confronted with another. It is counted among the basic human emotions and is particularly relevant here as the display tactics of a collector often include an element of surprise.

The *Victorious Cupid* (fig. 12) was kept in the main *galleria* in Giustiniani’s palace in Rome, under a dark green silk cover. Sandrart, who claims that the cover was his idea, informs us that the Cupid was only shown after all the other 120 paintings in the gallery, as it eclipsed all the other images in its perfection. He stresses its lifelikeness, which he suggests was particularly due to the illusion of relief and the natural colouring.³⁹⁹ Sandrart thus suggests that the cover was there in order to enhance the impact of the image on the viewer. It could also be suggested, however, that Giustiniani used the cover to hide the image from general view, as it contained the sexually suggestive image of a twelve-year-old boy. There are many questions surrounding Caravaggio’s relation to the model, his motives in displaying the boy in this particularly flaunting pose and the patron’s involvement and appreciation of the image.⁴⁰⁰

The sexual content is obvious and modern art historians have found the image difficult to analyse as a consequence. Mancini suggested that images that were dubious

³⁹⁹ Sandrart, *Joachim von Sandrart’s Academie*, in Hibbard, *Caravaggio*, 378.

⁴⁰⁰ Hibbard calls the image ‘blatant’ in terms of exhibitionism and according to him the model is turned into ‘a boy of the streets and an object of pederastic interest’, *Caravaggio*, 157.

in moral terms should be covered and kept away from the public spaces of the house. They were to be enjoyed in private by the patron and his wife in the procreation of beautiful children.⁴⁰¹ However, such an explanation does not correspond well with Sandrart's claim that the painting was the pride of the collection, displayed only after unveiling, for increased effect. Giustiniani was particularly fond of the work and it seems more likely that Sandrart's interpretation is closer to the truth. There is also a convincing precedent in Vasari's account of Leonardo's life. After painting a very lifelike head of Medusa (mentioned on pp. 102-3) Leonardo hid it under a cover in order to reveal it to his father and the farmer who had commissioned the piece. The two men were so startled by the unveiling that they both fled out of the room. Furthermore, Caravaggio's *Victorious Cupid* can be seen to emulate Leonardo's success in lifelikeness (which also seems the case with his version of *Medusa*).⁴⁰²

The viewer reaction of being surprised can be explained in neuroscientific terms. Surprise is one of the basic human emotions; others are joy, distress, anger, disgust and fear. Like these, surprise is based in the limbic system. Evolutionarily surprise is advantageous because it means that we are forced to take notice of something new. The thing that gives rise to surprise also forces the human brain to pay attention to it. In this way the body is prepared to act and respond to the surprise.⁴⁰³ The unexpected, which is the crucial feature of something that will be surprising, has been studied in neuroscience through research on how the human brain treats patterns and subsequently breaks in those patterns. These patterns can involve aural cues, such as a series of equal sounds followed by a different type of sound or a different sequence. It can also be visual, for example, seeing a sequence of dots blinking or moving on a screen. The pattern is broken by changing the sequence or direction of the dots.⁴⁰⁴ This experiment evaluates how the brain reacts when confronted with something unexpected. The brain automatically binds similar features together, for example similar colour or similar shapes in proximity. This same basic function of the human brain is present for any type of patterning, for example visual, aural or tactile. If a pattern is broken, surprise occurs, and the attention is directed to that which stands out, be it in colour, shape or orientation. Neuroscientists have focused on these simple types of surprise, in order to

⁴⁰¹ Mancini, *Considerazioni*, vol. 1, 143.

⁴⁰² Vasari, *Lives of the Artists*, 258-60 and Langdon, 120-2.

⁴⁰³ Evans, *Emotion*, 36.

⁴⁰⁴ Gabriel Horn, 'Novelty, Attention and Habituation', in Christopher Riche (ed.), *Attention in Neurophysiology*, (London: Butterworth's, 1969), 230-46.

achieve the most conclusive results; however, surprise on a more general scale has the same effect of focusing the attention.⁴⁰⁵ Thus if a collector really wanted an audience to pay attention to a particular painting, first hiding it and then revealing it would help achieve his aim.

Furthermore, the limbic system reinforces both the initial binding of features and then also the contrasting ones. The brain will automatically bind together similar features, such as grouping different features such as particular colour or shape. So, for example, the shape of the gash in Holofernes' neck is picked up again in the sweep of Judith's dress. Breaks in the patterns and contrasting features that the human brain picks up on are equally important, and forces the brain to pay attention. So for example covering one painting with a cover will immediately draw attention to it. This reinforcement is discussed by Ramachandran and Hirstein as a component of aesthetic appreciation on an emotional level.⁴⁰⁶ The appreciating of an image might also be increased by a strategy of display involving sudden unveiling. The suggestion proposed by Friedlaender, that the covering was designed to hide the image from uninitiated eyes is clearly problematic.⁴⁰⁷ The painting was hung in the main gallery of the collection and the covering would in itself have resulted in a break in the pattern of display, actually drawing the attention to the painting before the unveiling took place.

Surprise has been further recognised as the foundation for curiosity and learning by both Descartes,⁴⁰⁸ who focuses on the phenomenon of the unusual and novel object causing surprise, and Bacon, who simply describes the emotional state as the 'seed of knowledge'.⁴⁰⁹ John Onians has presented this progression from wonder to learning in 'I wonder...': A short History of Amazement', in which he discusses curiosity collections and Wunderkammers.⁴¹⁰ He emphasises the importance of surprise in viewer experience and collector-control as well as the evolutionary advantages of both. The emotional component is advantageous as surprise leads to attention which in turn leads to learning. The object causing surprise may then need to be followed, fought or avoided for the human's (or the animal's) procreation, dominance or safety. Surprise

⁴⁰⁵ Kandel and Wurtz, 'Constructing the Visual Image', 492-506.

⁴⁰⁶ Ramachandran, and Hirstein, 'Science of Art', 15-51.

⁴⁰⁷ Friedlaender, *Caravaggio*, 94.

⁴⁰⁸ René Descartes, *The Passions of the Soul*, [1649], (Cambridge: Hackett Publishing Company, Cambridge, 1989), 52-61.

⁴⁰⁹ Francis Bacon, *The Advancement of Learning*, [1605], (Reprint from 1960, Oxford: Oxford University Press, 1906), 10.

⁴¹⁰ Onians, 'I wonder...', 11-34.

thus safeguards a human being by forcing attention. As seen above, this can be utilised as an aesthetic effect.

Onians further argues that the unfamiliar elements included in the curiosity collections and Wunderkammers of the sixteenth and seventeenth centuries worked in favour of the collectors, who could stage the viewers' response of surprise to their advantage.⁴¹¹ This is comparable to the reaction reputedly caused by Leonardo's revelation of his *Medusa*, or the unveiling of the *Victorious Cupid* in Giustiniani's collection.

The focus on collections of curiosities here also foregrounds another related issue. In these collections there was a particular interest in objects which crossed the boundaries between naturalia (things made by God) and artificialia (man-made things). Samuel á Quiccheberg (1529-67), one of the earliest writers on curiosity collecting, emphasised this by incorporating a category including animals made from a variety of metals, clays or 'any productive material whatsoever, by whatever technique, which look like they are alive because they have been skilfully fashioned'.⁴¹² This category included, for example, animals made from plaster, metal or clay.⁴¹³ The emphasis on the illusion of life equally recalls of Leonardo's *Medusa*, Caravaggio's *Victorious Cupid* and Bernini's *Apollo and Daphne* (which will be discussed in the following section, fig. 92). This focus on bringing dead matter to life is related very closely to issues of 'realism' and recalls the poem by Marino in which the poet acclaims Caravaggio for creating life through his paintings (mentioned on pp. 113).

4.2.5: Reality and illusion

While the effect of revelation and unveiling has been discussed above, Sandrart states that the cover revealed an image that was startling because of its realism. Cupid appeared lifelike because skilful relief made the figure stand out from the painting, so that it even appeared to enter the space of the viewer. It was also lifelike because of the quality of the still-life painting. Sandrart particularly mentions the wings. 'Cupid has large brown eagle's wings, all drawn correctly, with such powerful coloration, clarity

⁴¹¹ Onians, 'I wonder...', 11-34.

⁴¹² Samuel á Quiccheberg, 'Samuel á Quiccheberg's third and fourth Classes', [*Inscriptiones Vel Tituli Theatri Amplissimi*, Munich: 1565] in Pearce and Arnold (eds.) *The Collector's Voice: Early Voices*, vol. 2, (Aldershot: Ashgate, 2000), 6-11 at 7.

⁴¹³ Quiccheberg, 'Samuel á Quiccheberg's third and fourth Classes', 6-11.

and relief that it comes to life'.⁴¹⁴ He continues the section by stating that it eclipsed the other works in the room and mentions that Giustiniani refused a large sum of money that a nobleman offered for it. Thus the features of illusion and realism are combined in his account of how the *Victorious Cupid* (fig. 12) was displayed by Giustiniani and how it startled visitors. In terms of the collecting and commission practices around 1600 lifelikeness and illusion are very important. Caravaggio's lifelikeness, as related to his technique of painting from nature, is seen as a defining feature of the prominent Caravagist school developing in the early seventeenth century and illusion was furthermore one of the ways in which an artist could show his skill.⁴¹⁵

Illusion as a viewer experience was summed up by Gombrich in 1960: 'Illusion we will find, is hard to describe or analyse, for though we may be intellectually aware of the fact that any given experience must be an illusion, we cannot, strictly speaking, watch ourselves having an illusion.'⁴¹⁶ It may be difficult to analyse, but a short examination will here draw out the relationships between Caravaggio's 'realism', illusion and viewer engagement. Pictorial illusions are successful because the human brain makes assumptions about the input from the eyes. The Müller-Lyer illusion is effective only on people who are used to looking at built-up objects, like corners of houses and rooms. In this case the brain has, through exposure to these features, learnt that lines with acute angles at their ends most likely are closer, and lines with obtuse angles should be further away. This experience is so ingrained in our brains that it is impossible to see the lines as of equal length.⁴¹⁷

This illusion of size can be further examined through looking at size in relation to context. In the first photograph (fig. 93) there is nothing to suggest that the second woman is tiny in relation to the first. The size relation seems natural, even though when the same woman is placed next to the larger figure, she looks minuscule. This depends on the brain's experiences of the world, the expectation of size is met by the first image; the perspective makes the brain assume that the women are actually the same size.⁴¹⁸

Finally, the Kanizsa triangle is a powerful reminder of the extent to which the human brain is reinforced to see the expected (fig. 94). The triangle in the middle is seen even though it is completely made up from fragments of other figures. And a white

⁴¹⁴ Sandrart, *Joachim von Sandrart's Academie*, in Hibbard, *Caravaggio*, 378.

⁴¹⁵ Mancini, *Considerazioni*.

⁴¹⁶ Gombrich, *Art and Illusion*, 6th ed., (London, Phaidon, 2002), 5.

⁴¹⁷ Jan Deregowski, 'Illusion and Culture', in Richard Gregory and Ernst Gombrich (eds.), *Illusion in Nature and Art*, (London: E. H. Duckworth, 1973), 160-91.

⁴¹⁸ Kandel and Wurtz, 'Constructing the Visual Image', 492-506.

triangle appears on a white background as the brain completes the image.⁴¹⁹ This example shows only how the human brain finishes simple geometrical figures; however, the same features of expectation and assumption would be present in the complex pictorial illusions of artists in Rome in the seventeenth century.

Illusion in painting depends very heavily on the fact that the brain actively contextualises the input from the eyes and binds features together in ways that make sense. Humans are necessarily seeing the pictorial space of Caravaggio and Annibale Carracci as two-dimensional. In fact to be able to see a painting as simply surface, humans have to reconfigure the way in which they are looking at the object. As soon as we see the paint we cannot see the image. This shift is important, and for example, it does not happen in the perception of the Müller-Lyer illusion, where it is impossible to see the lines as of equal length. With painting there is a certain play between the surface paint and the imagery. It is impossible to have both views at the same time, much in the manner of Gombrich's example of the duck and the rabbit (fig. 95). It is possible to see both but impossible to see them at the same time.⁴²⁰

Annibale Carracci and Caravaggio made use of this relation, between surface and imagery in their work. They particularly blurred the boundaries between the viewer's space and the pictorial space in different ways. In many ways they can be seen as trying to eliminate the surface, with the help of different visual deceits. Caravaggio practically ignored the background, thus not allowing for the viewer to recognise a space within the painting. This, together with the increased relief achieved through the use of stark shadows, seemingly pushes his characters out of their frames, into the viewer space. Annibale Carracci, on the other hand, attempted three-dimensionality in the Farnese Gallery ceiling (fig. 79). Here, the pictorial space is barely distinguishable from the real space. This is achieved through the realistic depiction of several types of materials. Frames that look like real frames are painted, overlapping features make the painted bronze roundels appear real and the sculptural figures stand out as if in actual relief. The pictures look like paintings inset; however, because of the confusion of the other features, they can easily be experienced as extensions of the real space rather than as depictions on flat surfaces. Annibale's illusionism invites the viewer into the pictorial space through layering different depicted materials. The boundaries between the viewer space and the pictorial space are smoothed out and mockingly the viewer is invited to

⁴¹⁹ Kandel and Wurtz, 'Constructing the Visual Image', 492-506.

⁴²⁰ Gombrich, *Art and Illusion*, 4-5.

distinguish what is what while (s)he is again and again trapped by not being able to see where the real space starts and ends.

On the few occasions Caravaggio extended the background, he did not emphasise it to any great length and did not attempt the sort of illusion Annibale Carracci achieved. More often, as Sandrart remarked about the *Victorious Cupid*, the painted figure seems to come out of the image so that it looks as if it is in actual relief. This feature is often emphasised by the depiction of protruding limbs, a feature that he used continually to connect the two spaces together. The elbow of St Thomas looks as if it breaks the pictorial space (fig. 6) and in the *Supper of Emmaus* (fig. 96) the hand of the disciple virtually penetrates the picture plane and enters the space of the spectator. It is possible that Caravaggio picked up this feature as an apprentice in Milan. Leonardo, who according to Vasari used this feature in the *Medusa*, used the same illusion in many of his works. One of the best examples is the Madonna's hand in *The Virgin of the Rocks* in the National Gallery in London (fig. 97). However, it should be noted that Caravaggio adapted more identifiable poses from Michelangelo, suggesting that his invention in this area is not entirely dependent on his Milanese training.

To return to the influences of Leonardo, Caravaggio's use of shadows is closely tied to his training in Milan. The use of shading is one of the means by which artists achieve lifelikeness through relief and, in the way in which Caravaggio uses it, it tends also to emphasise the characters' poses and expressions. Experimentation with chiaroscuro is generally connected to Leonardo. He famously built up composition from a dark ground and used shadows as a means of creating the illusion of relief. Caravaggio also built his paintings from a dark ground and deployed shadows to create stark contrasts in his compositions.⁴²¹ Caravaggio's use of a dark background with starkly contrasting shadowed and lit areas of the canvas has been called tenebrist, a word originating from 'tenebroso' meaning 'dark'.⁴²² The term developed in the seventeenth century as a pejorative judgement of the severe juxtaposition of dark and light in painting. The use of these sharp contrasts is a feature that has become an index of Caravaggesque influence. It is necessary, however, to realise that the use of shadows and light by artists as various as Leonardo, Caravaggio, Rembrandt, Georges de la Tour, Gerrit van Honthorst and Jusepe Ribera (all artists who have been associated with

⁴²¹ Phoebe Dent Weil, Technical Art History and Archeometry II; An Exploration of Caravaggio's Painting Techniques, *Revista Brasileira de Arqueometria, Restauração e Conservação*. 1/3, (2007), 106-10.

⁴²² *OED*, s.v. 'tenebroso'.

tenebrism) cannot be fully explained with reference to one umbrella term. This is particularly important as Caravaggio often used Michelangelo's poses as the basis for his own compositions. He also uses dark outlines to emphasise the bodies of the characters in a similar way to Michelangelo. Indeed, Caravaggio's shadows tend to draw attention to the body of the character, something that aids the perception of gesture.

To return to the question of lifelikeness and illusion, Bernini had an advantage, in the sense that the art of sculpture allowed the figures a literal three-dimensional presence. *Apollo and Daphne* (fig. 92) is an eloquent exercise in the problem of creating life from an artist's inert materials. The sculpture was placed in the Borghese villa in the angle of a room. This positioning made it appear as if the two characters had just sprung out of the corner at the moment in which the viewer entered. This constitutes a strategy of display designed to create an event in motion as well as to cause wonderment. Daphne is caught in the motion of running and turning into a laurel tree. The base shows the material stone, which the sculpture is actually made of, in the form of sculpted rubble. Through the illusion, the original marble turns visibly into flesh and then into wood. Bernini was showing exactly what his skills as a sculptor were. He was not able to turn stone into living matter, but he could make his audience think that he could.⁴²³ This echoes Cellini's bronze Perseus (fig. 98) which was placed on Piazza Signoria in Florence so that it faced Michelangelo's David, exploiting the conceit that the severed head of Medusa had turned both *David* and a sculpture by Baccio Bandinelli (1493-1560) into stone (fig. 99).

The human brain's capacities to 'finish' figures (for example the Kanizsa triangle) and to be taken in by illusions (for example the Müller-Lyer illusion), also impact on the way complex illusions in painting and sculpture are experienced by the viewer. Without the creativity of the brain, making assumptions regarding the visual input, as well as binding and contrasting features, humans would see only the paint instead of the image. Artists make use of this brain function, and have the ability to play with the relation between the paint and the image. Thus, lifelikeness in Caravaggio's work cannot be construed as solely photographic likeness. When Sandrart focuses on the eagle's wings, the focus is on the relief. This feature is also presented as the basis for the viewer engagement as well as the quality of the picture. The idea that the

⁴²³ Catalogue entry 7, room III, in Moreno and Stefani (eds.), *The Borghese Gallery*, 110.

painting comes alive is a recurrent theme in seventeenth-century biographies of Caravaggio. This effect is dependent on the viewer's engagement with the movement in the imagery.

4.3: THE COLLECTOR

4.3.1: The Giustiniani: their social arena and their interests

This section will introduce the Giustiniani brothers and their skills and interests. They were more than collectors and connoisseurs of Caravaggio's art; they supported him financially, recommended his art to other prospective patrons and wrote critically about his works. Vincenzo was born in 1564, a decade after his brother Benedetto. He was moved as a two-year-old with his entire family from Chios, where his father Giuseppe had been the Genoese governor, at the time of the Turkish appropriation of the island. Giuseppe decided to settle in Rome, as his brother Cardinal Vincenzo Giustiniani already had some standing there. The family were well connected in Genoa and counted among its acquaintances several influential bankers, including Ottavio Costa (the owner of Caravaggio's *Judith Beheading Holofernes*), and the Doria family. While Benedetto was twelve by the time the family moved away from Chios, Vincenzo grew up in Rome. As an adult, following the family tradition, he became a successful banker.⁴²⁴

Benedetto was made a cardinal by Pope Sixtus V in 1586. He was at his most influential during the papacy of Clement VIII. His role as treasurer further made him an important figure at the jubilee of 1600, and the building work and decoration of Rome's churches put him in direct contact with both architects and artists. His stay in Bologna from 1606, in the capacity of cardinal legate, was particularly important for his collecting.⁴²⁵

The Palazzo Giustiniani, neighbouring del Monte's Palazzo Madama in the centre of Rome, was divided between the father and his two sons, who had separate apartments in the same building. The neighbourhood was fashionable in the 1590s and the Crescenzi family, who moved in the same social circles, also lived close to the Pantheon. This area was buoyant in many respects. Del Monte and Giustiniani were not only at the heart of Rome spatially, but also in terms of the city's intellectual pursuits.⁴²⁶

They were fashionably interested in both the sciences and the arts. However, it would be unfair to describe them only as passive followers of trends. Their wider circle of friends, including Cardinal Alessandro Montalto (1570-1632), Ferdinando de' Medici

⁴²⁴ Langdon, *Caravaggio*, 99-104.

⁴²⁵ Silvia Danesi Squarzina, 'The Collections of Cardinal Benedetto Giustiniani. Part I.', *The Burlington Magazine*, 139/1136 (1997), 766-91.

⁴²⁶ Langdon, *Caravaggio*, 99-104.

and Ciriaco Mattei, for example, had intense interests in a wide variety of subjects. Del Monte, in particular, set a precedent by being versed in geography, alchemy, botany, medicine and physics. He commissioned drawings of plants and animals from Jacopo Ligozzi (1547-1627), who also supplied the collection of Grand Duke Ferdinando de' Medici. He had a distillery and a collection of scientific tools. He even did his own experiments and gave his friends and colleagues treatments for their medical problems. He also supported Galileo Galilei and encouraged the current interest within the sciences in knowledge through observation. Del Monte surrounded himself with scientists and collectors. Indeed, in his case the ‘collecting’ of people will be seen here to have rivalled that of objects. At the fringes of the Giustiniani’s social circle was the German doctor Johann Faber (1574-1629), who also lived close to the Pantheon and had a large natural collection to rival his friends’ collections of cultural artefacts.⁴²⁷

Vincenzo’s treatises reveal a multifaceted character, matching that of his friends and colleagues. He was interested in hunting, painting, music and travel. He went on an extended excursion throughout Europe in 1606 and travelled as far as London. An interesting detail is that he took with him the painters Cristoforo Roncalli (Il Pomarancio, c. 1553-1623) and Bernardo Bizoni (b. 1564). The latter kept a journal of their journey and some of Giustiniani’s priorities came to the fore in his writings. Bizoni portrays Vincenzo as a real connoisseur of art, but also includes some lively details of the trip. For example he tells of an incident in which Vincenzo after having toasted the Medici, del Monte, his brother and the Republic of Genoa, proceeded to drink copiously, vomit and fall asleep.⁴²⁸

Drinking aside, one of the things that seem to have united these gentlemen was their extensive interest in music.⁴²⁹ They hosted and attended performances, and engaged musicians to play at their gatherings. While Vincenzo Giustiniani wrote a treatise on music, del Monte could sing well and played a Spanish guitar to suit.⁴³⁰ It also seems that the Giustiniani and del Monte competed in their ability to entertain through the musicians they employed to play at their events. One of Giustiniani’s triumphs was getting Cavaliere Luigi del Cornetto (who played the cornetto) to astonish the audience assembled in his small music rooms with his virtuosity. Del Monte, in turn,

⁴²⁷ Langdon, *Caravaggio*, 99-104.

⁴²⁸ Langdon, *Caravaggio*, 99-114.

⁴²⁹ Franca Trinchieri Camiz, ‘The Castrato Singer: From Informal to Formal Portraiture’, *Artibus et Historiae*, 9/18, (1988), 171-86 and ‘Music and Painting in Cardinal del Monte’s Household’ Author(s): *Metropolitan Museum Journal*, 26, (1991), 213-26.

⁴³⁰ Trinchieri Camiz, ‘Music and Painting’, 213-26.

was fortunate to have the Spanish castrato, Pedro Montoya, singing at his events. This interest in music extended to art commissions. Both del Monte and Vincenzo Giustiniani commissioned Caravaggio to make for them paintings with music as a theme. Del Monte owned *The Musicians* (fig. 32) and Vincenzo possessed a version of the *Luteplayer*.⁴³¹

4.3.2: The family collection

Having discussed some of the skills and interests of Vincenzo and his circle, it is time to introduce his collection. There are various aspects of the collection that are now known in considerable detail. Vincenzo Giustiniani became the head of the family in 1621 when his brother Benedetto died. The family collections were at this point united in one of the most impressive collections of art and ancient sculpture in Rome. Vincenzo was a keen collector of art made by his contemporaries, by the old masters and by the ancients. Both his collection of antique sculpture and his paintings were catalogued by Joachim von Sandrart, who lived in the Palazzo Giustiniani between 1629 and 1635.⁴³² The ‘Galleria Giustiniana’ was published in two volumes, illustrated with engravings. The frontispiece presented the collector in an engraving by Claude Mellan made in 1631.⁴³³ In 1638 he had a collection of 1800 ancient sculptures and 600 paintings. The inventory listed thirteen paintings by Caravaggio, including the *Lute-player*, *Doubting Thomas*, the *Victorious Cupid*, the *Crowning with Thorns* and *St Jerome in Penitence*. While Giustiniani’s interest in Caravaggio is well known, it is now recognised that four of the paintings were originally in Benedetto’s collection.⁴³⁴

Benedetto’s collection comprised a total of 280 paintings and it is now clear that he as well as his brother appreciated both Caravaggio and the Carracci. His impact on the family collection is currently under reconsideration, as a consequence of Silvia Danesi Squarzina finding records of his guardaroba. Interestingly, a large proportion of his paintings were the works of Bolognese masters. His collection of works by the Carracci included two small paintings, a *Madonna and Child with Lamb* and a *Madonna and Child with Saints*, by Ludovico Carracci, a *Madonna and Child with St Joseph* attributed to Annibale Carracci and a *Madonna and Child with St John the Baptist* and

⁴³¹ Langdon, *Caravaggio*, 108-10.

⁴³² Langdon, *Caravaggio*, 449-52.

⁴³³ Salerno, ‘The Picture Gallery of Vincenzo Giustiniani – 1: Introduction’, 21-27.

⁴³⁴ Elizabeth Cropper, ‘Review: Caravaggio and the Giustiniani. Rome and Berlin’, *The Burlington Magazine*, 143/1180, (2001), 449-52.

St Elizabeth by Agostino Carracci. The inventory dates one of the paintings acquired from Annibale (*Christ on the Cross*) to 1594 just after the artist had arrived in Rome; significantly, this was before Vincenzo started taking an interest in Caravaggio in 1600 and well before the year 1606 when Benedetto went to Bologna. These were later included in Vincenzo's collection. Danesi Squarzina attributes the commission or acquisition of the *Doubting Thomas* to Benedetto as there were copies of it that appeared in and around Bologna. Furthermore, Benedetto commissioned and collected works that complemented or competed with pieces in the collection of his brother, Vincenzo. One example is Benedetto's ownership of two paintings by Baglione on the theme of Love triumphant.⁴³⁵ It also seems that he sat for Caravaggio who painted a portrait of him (which is now lost).⁴³⁶

While he was in Bologna, Benedetto collected with fervour. He acquired many drawings for his collection and commissioned works for the church S. Paolo (in Bologna) by Lorenzo Garbieri (1580-1654), an artist famed for realistic depiction. It is also known that he tried to buy a painting of *St Sebastian* by Francesco Francia (c. 1450-1517), one of his favourite painters, nine of whose works he already owned. However, since he did not supply the promised copy to replace the original the sale fell through.⁴³⁷ While it is possible to collect without much active interest, in this case, collecting and appreciating art was a family pastime.

Vincenzo's interest in the arts was wide-ranging. He not only collected art but wrote on the subject.⁴³⁸ He also used to go to see artists working, and further knew the impact a patron could have on artistic production.⁴³⁹ His impact on Caravaggio's career can be traced in the visual evidence. The change in Caravaggio's style around the time of his first public commissions in 1600 and the years directly following could be considered as a consequence of the new types of imagery he had to produce; he started to produce large religious pieces that were to hang in churches, rather than small works that were to hang in private palaces. This change also coincided with the artist's first dealings with Vincenzo and it was he who seems to have instigated Caravaggio's commissions in S. Luigi dei Francesi.⁴⁴⁰ Vincenzo's involvement in this commission

⁴³⁵ Danesi Squarzina, 'The Collections of Cardinal Benedetto Giustiniani. Part I.', 766-91.

⁴³⁶ Salerno, 'The Picture Gallery of Vincenzo Giustiniani – 1: Introduction', 21-27.

⁴³⁷ Salerno, 'The Picture Gallery of Vincenzo Giustiniani – 1: Introduction', 21-27.

⁴³⁸ Giustiniani, 'From a Letter', 16-20.

⁴³⁹ Salerno, 'The Picture Gallery of Vincenzo Giustiniani – 1: Introduction', 21-27.

⁴⁴⁰ Luigi Salerno, 'The Roman World of Caravaggio: His Admirers and Patrons', *The Age of Caravaggio*, (New York: The Metropolitan Museum of Art, 1985), 17-21.

explains why he was in a position to acquire the rejected *St Matthew and the Angel*. Indeed, if he influenced the creative choices, he may have seen it as a logical action. It is clear that Vincenzo was engaged on various levels, both with the art work and the artist.

Vincenzo was also a particularly modern collector in the context of early seventeenth-century collecting. He was a diligent connoisseur, a type of collector that was to become more important further into the century. Another report from the European travels flatters his knowledge of art, describing him as recognising a Dosso Dossi before Roncalli, the accompanying artist.⁴⁴¹ He was especially interested in the production of works in Rome, and often more concerned about the artist than the subject matter. Baglione, who was critical of his patronage of Caravaggio, wrote that Vincenzo wanted the *St Matthew and the Angel* only because it was made by Caravaggio and that otherwise it ‘pleased nobody’.⁴⁴² While Baglione is not the most reliable informant, because of the grudge he bore against Caravaggio, in this case he may have had a point. Vincenzo seems generally to have been more interested in ‘the artist’ as a category in the acquisition of works, in comparison to other collectors. The catalogue of the collection presents two thirds of the works with a record of the name of the artist, when the normal ratio of paintings with recorded named artists in contemporary catalogues was one fifth. This shows a marked interest in the identity of the painter.⁴⁴³

That the interest in individual artists was increasing is further substantiated in a different context. It became more common for artists to create works without being commissioned to do so, and then sell them on a more open market. A related phenomenon, which became increasingly popular in Rome around 1600, was the display of collections with moveable pictures, ‘quadri mobili’. Galleries with moveable pictures began to replace the otherwise predominant fresco decoration of the walls of the noble Palazzi. While Vincenzo’s galleria displays evidence of this trend, the Borghese, in particular, played an important role in making this type of display fashionable.⁴⁴⁴ There could be several benefits in a moveable collection. Within the social circle, the gift of a painting was usual (for example, two Caravaggio paintings, *Medusa* and *Bacchus*, were given as gifts to Ferdinando de’ Medici). The members of

⁴⁴¹ Salerno, ‘The Picture Gallery of Vincenzo Giustiniani – 1: Introduction’, 21-27.

⁴⁴² Baglione, *Le Vite*, in Hibbard, *Caravaggio*, 351-6.

⁴⁴³ Creighton Gilbert, *Caravaggio and his two Cardinals*, (University Park, Pennsylvania: The Pennsylvania State University Press, 1995), 104-7.

⁴⁴⁴ Coliva, ‘Scipione Borghese as a Collector’, 19.

the family, living in Rome, were often a small group of a family called to Rome because of diplomatic and/or papal duties. Most of the cardinals living in Rome had family residences somewhere else and also villas outside of Rome (mainly in Frascati, although the Giustiniani Villa was at Bassano di Sutri), where they could escape the summer heat. Moveable paintings would be an economic and simpler way of decorating a residence. Furthermore, the inclusion of moveable artefact collections in wills made them useful capital (in comparison to a frescoed wall).

Another reason for why the trend of moveable painting became more fashionable could be the importance of style. There is a marked difference in the technique and finished effect of oil painting in comparison to the more traditional house decoration in fresco. Sandrart, who catalogued Giustiniani's collection, particularly mentioned the technique, saying that oils gave better truthfulness to the subject and better colour effects.⁴⁴⁵ It is notable that Caravaggio was able to make a name for himself without doing any fresco work. Moveable images could perhaps also be more easily displayed for particular viewer responses (as was the case with the *Victorious Cupid*), something of which Giustiniani took particular advantage.

It is clear that Giustiniani valued the artist as the maker of paintings as well as the artefacts themselves. In his patronage of Caravaggio he went out of his way to help the artist. Buying a rejected painting (which is the way in which Vincenzo acquired *St Matthew and the Angel*) was in itself not unusual. Scipione Borghese is known to have made use of this type of purchase; Caravaggio's *Madonna dei Palafrenieri* is one good example. However, Giustiniani went further than simply obtaining another painting for his collection. He arranged for Caravaggio to paint a replacement altarpiece for S. Luigi dei Francesi. The decision to help Caravaggio in this way was not driven by his interest in personal gain. It is possible that he saw the opportunity of getting an altarpiece cheaply; however, additionally supporting Caravaggio's career was not necessary and even somewhat risky as this was Caravaggio's first major commission. It is more likely that Vincenzo, if not also Benedetto, had some personal investment in Caravaggio and his works.⁴⁴⁶

Caravaggio was not the only artist under the protection of the Giustiniani. Even though it is clear that Vincenzo appreciated Caravaggio and the Caravaggisti more than any other group of artists in the early seventeenth century, his focus was not exclusive,

⁴⁴⁵ Sandrart, *Joachim von Sandrart's Academie*, in Hibbard, *Caravaggio*, 375-80.

⁴⁴⁶ Gilbert, *Caravaggio and his two Cardinals*, 104-7.

and his tastes in artists changed over time. It should be noted that in subject matter he acquired mainly religious imagery. He owned several paintings from Northern Italy, apart from his works by Caravaggio. He also collected works by the three Carracci, Domenichino, Albani, Viola and even Poussin. Of the Caravaggisti he owned paintings by Dirck van Baburen (c. 1594-1624), Ribera, Valentin, Saraceni, Angelo Caroselli (1585-1652), Borgianni, Domenico Fiasella (1589-1669) and Francesco Parone (1582-1652). Saraceni, Ruggeri and Parone worked in S. Maria sopra Minerva where the Giustiniani family had their chapel. Subsequently he developed an interest in the work of French artists. He started collecting works by Poussin when many of the Caravaggisti were leaving Rome. He also owned works by Claude Lorrain (1604/5-1682), Francois Perrier (c. 1594-1649), Jean Lemairie (1597-1659) and Rémy Vuibert (1600-1651).⁴⁴⁷

From the inventory a few features regarding the display of the images are clear.⁴⁴⁸ Firstly, many paintings were hung in one space. Secondly, they were not always framed, even in his main gallery. Caravaggio's large canvases were hung 'nella stanza grande de quadri antichi', together with paintings by Raphael, Titian, Andrea del Sarto, Giorgione, Correggio, Parmegiano, Veronese, Lorenzo Lotto, Giulio Romano, Annibale, Ludovico and Agostino Carracci, among others.⁴⁴⁹ The works by Caravaggio and the Carracci were thus central to Giustiniani's collection.

As Vincenzo and his wife Eugenia Spinola never had children, his collections passed on to an Andrea Giustiniani who was soon to marry into the Pamphili family. The collections were bequeathed and inherited with the stipulation that the works were kept as one collection and not dispersed. The collection was eventually dispersed after being sold to the King of Prussia and many paintings have not been securely identified.⁴⁵⁰

From this section an image of the collector emerges. Vincenzo was modern and indulged in a variety of styles of modern painting as well as ancient sculpture and old master paintings. He was a connoisseur with good knowledge in recognising works, interest in the working process and a theoretical interest in painting. He was a dedicated patron of the arts and was instrumental to Caravaggio's career. His learned enthusiasm

⁴⁴⁷ Salerno, 'The Picture Gallery of Vincenzo Giustiniani – 1: Introduction', 21-27.

⁴⁴⁸ It should be noted here that inventories are complicated pieces of evidence. They do not take into account possible changes in the arrangement of artefacts or the process of acquisition, which necessarily must have meant re-positioning works. Furthermore, it is difficult to contextualise the collection on the basis of an inventory as it rarely says anything about the connection between the patron and the objects.

⁴⁴⁹ Salerno, 'The Picture Gallery of Vincenzo Giustiniani III: The Inventory, Part II', 135-48 and 159

⁴⁵⁰ Salerno, 'The Picture Gallery of Vincenzo Giustiniani – 1: Introduction', 21-27.

for the artist's work is essential as it stands in great contrast to the biographers' disregard.

4.3.3: Positive comments on Caravaggio's work

The positive elements in the writing about Caravaggio are important since they evidence and, to some extent qualify, the substantial interest in his works. The patrons clearly appreciated Caravaggio's painting skills even though the seventeenth-century biographers generally disparage his efforts. Indeed many of the early writers harboured particular grudges against Caravaggio or had a vested interest in promoting particular features of Annibale Carracci's work.⁴⁵¹

Since Vincenzo can be considered both knowledgeable, fashionable and in possession of wide-ranging tastes in art, his thoughts on Caravaggio's achievement are particularly important. Furthermore, his is the only account by one of Caravaggio's patrons which dwells on the virtues that both Caravaggio and Annibale Carracci had in common. In a letter to the writer Teodoro Amayden (1586-1656), Vincenzo places both artists in the highest class of painters.⁴⁵² This classification is dependent on their superior skill in a particular working technique. In his hierarchy the mere copying of a cartoon represents the lowest level as it is the easiest skill to acquire. Working from nature and *di maniera* represents the twelfth and highest level, as it is considered by Vincenzo to be the most difficult. The tenth manner includes painters who paint from imagination without a model and the eleventh painters who can paint from nature. It is notable that painting from nature alone is considered a more elevated practice than painting from imagination alone. The twelfth is thus a combination of the previous two, and painting from nature is considered an innovation mastered (perhaps even initiated) by both artists.

According to his classifications, Vincenzo acknowledged Annibale Carracci as someone who painted from nature and Caravaggio as a painter that painted from the imagination. Interestingly, he placed both Rubens and Honthorst in the eleventh category. In his discussion of the categories, he places both the painters who use a real model (be it a posed human, a thing or the natural environment) and those who paint from imagination without model on a similar scale of competence. He does not consider

⁴⁵¹ See particularly Bellori, *The Lives of Annibale & Agostino Carracci*, 5-17.

⁴⁵² Giustiniani, 'From a Letter', 16-20.

the two working types as opposites, but rather as complementary practices that belong in different categories of skill.⁴⁵³ His preoccupation is thus not with two styles, but with two aspects of good painting that are combined in the painters Caravaggio and Annibale Carracci.⁴⁵⁴

As for the biographers, Janis Bell has noticed that there is another area in which the commentators on Caravaggio, who otherwise give him criticism, praise his efforts. Caravaggio's treatment of colour is mentioned by Mancini who writes that 'It cannot be denied that for single figures, heads and coloration he attained a high point, and that the artists of our century are much indebted to him'.⁴⁵⁵ Bell notes that Mancini discusses both Caravaggio's and Annibale Carracci's colour and that he finds their efforts particularly commendable as their colours are more saturated and therefore more forceful than other artists.⁴⁵⁶ Mancini divided the painters of his time (the manuscript is from 1621-27) into four groups. The first consists of the Carracci and their followers, the second of Caravaggio and his followers, the third of Cesari and his followers and the fourth contains some of the older generation of 'mannerists'. One of the main points he makes about Caravaggio and his group is that their works are 'excellently coloured'.⁴⁵⁷ Baglione comments on the *Fortune-Teller* (fig. 39) in particular that it had beautiful colouring.⁴⁵⁸ Even Bellori refers to Caravaggio's colouring as sweet.⁴⁵⁹ These comments are applied to his earlier works and it is possible that they were intended as covert criticism, since colour was not considered as high on the scale of artistic excellence as design.⁴⁶⁰ Nonetheless, these positive comments concerning Caravaggio's work need to be considered.

In the section on flower painting (category five on the scale of competence) in his letter, Giustiniani quotes Caravaggio as having said that the first skill which artists must require is the skill of using colours well. Caravaggio is quoted saying that it was as

⁴⁵³ Giustiniani, 'From a Letter', 16-20.

⁴⁵⁴ To paint *di maniera* went from being an appreciated sophistication in a painting to a practice to be sneered at, by for example Bellori, for its artificiality. For Giustiniani it is a term denoting sophistication rather than artificiality; however, he emphasises that it has to be combined with painting from nature. For an in-depth discussion of the term see John Shearman, *Mannerism*, (London: Penguin Books, 1967), 15-22.

⁴⁵⁵ Mancini, *Considerazioni*, in Hibbard, *Caravaggio*, 346-51.

⁴⁵⁶ Janice Bell, 'Some Seventeenth-Century Appraisals of Caravaggio's Coloring', *Artibus et Historiae*, 14/27, (1993), 103-29. Mancini, *Considerazioni*, vol. 1, 223 and 257.

⁴⁵⁷ Mancini, *Considerazioni*, in Hibbard, *Caravaggio*, 351.

⁴⁵⁸ Baglione, *Le Vite*, in Hibbard, *Caravaggio*, 353.

⁴⁵⁹ Bellori, *Le Vite*, in Hibbard, *Caravaggio*, 363-4.

⁴⁶⁰ See for example Catherine King's, *Representing Renaissance Art, c. 1500-1600*, (Manchester: Manchester University Press, 2007), 61-102.

much work making flowers as human figures. It is possible to infer from the context that this is connected to painting colour from nature rather than the imagination. Of the tenth category Giustiniani wrote that the colouring should be made to look pleasing and in the eleventh he remarked on the difficulties of painting and representing colours from nature. The difference in the eleventh category is that beyond being pretty and pleasing, the colours needed to be appropriate. He observes that this sense of appropriateness is something that is intuitive to artists and is not easily taught. He continues by stating that the painter should leave no confusion as to what area is shaded or lit, should depict colours so that the light seems a continuum of natural light and finally that he should present the colour as unchanging so that the shadow does not give the impression that it is the colour that has changed.⁴⁶¹

Giustiniani is unusual in the records in placing Caravaggio and Annibale Carracci in the same group and he writes in his section on the best painters that they paint from the imagination and from the model to different degrees. Mancini on the other hand places Caravaggio and the Carracci in different groups in his discussion of the contemporary schools of painting in Rome. It is not difficult to see the differences between many of the Caravaggisti's works and those of the Carracci's followers. However, a comparison of Annibale Carracci's *Bean-Eater* (fig. 90) with Caravaggio's *Tooth-Puller* (fig. 100) or Carracci's *Assumption of the Virgin* (fig. 91) with Caravaggio's *Entombment* (fig. 16) brings out Giustiniani's point about the two artists. From these cases it would seem that painting from nature was more acceptable in genre works, while for religious paintings commissioned for churches it was both necessary, as Christ or the saints were not available to model, and appropriate to paint from the imagination. It is interesting that Caravaggio, when asked in a court trial, grouped Cesari, Zuccaro, Roncalli, Tempesta and Carracci as painters who knew how to paint well (although not necessarily from a model). This is a conservative list, which does not include any of his immediate followers. It may have been a stock answer, with reference to some of the most popular painters in Rome. It could, of course, also show that Caravaggio appreciated the work of these artists.⁴⁶²

⁴⁶¹ Giustiniani, 'From a Letter', 19, and Bell, 'Some Seventeenth-Century Appraisals', 103-29.

⁴⁶² Langdon, *Caravaggio*, 268.

4.3.4: Scipione Borghese, del Monte and Mattei

The main collectors of works by the Carracci and Caravaggio seem not to have found the artists of different quality. Scipione Borghese, like Giustiniani, owned paintings by both Caravaggio and the Carracci; however, as a patron of the arts his main contribution was to the career of Bernini. His situation changed dramatically when his uncle Camillo was elected Pope Paul V in 1605. Scipione did not show particular interest in the political power that could fall on the Pope's nephew. Instead, when he was brought to Rome and made a cardinal (he was only twenty-seven at the time) he made some intriguing choices. One of his first decisions was to reject the inheritance of his aunt and uncle, which instead would go to his cousin Marcantonio, and to ask instead for the family collection. This, in itself, might not necessarily have been a strange choice as the images could have outweighed the fortune in monetary value, but, the Borghese fortune was one of the largest in Rome. It seems as though Scipione may have desired the works by Raphael, the very small *Three Graces* (fig. 101) and *Vision of a Knight*, more than money.⁴⁶³

While his choice of placing the arts above money might seem almost magnanimous and admirable, his collecting urge would lead him to some very dubious actions. He had his uncle confiscate the paintings in Cesari's studio while the artist was in jail and so managed to acquire 107 new paintings, including works by Caravaggio. He jailed Domenichino in order to get his hands on his *Diana Hunting*, pressured Guido Reni who had returned to Bologna to the point that the painter wanted to flee to Venice and removed Raphael's *Entombment* from the church S. Francesco in Perugia without permission.⁴⁶⁴ Annibale Carracci, who was known for his ability to circumvent his patrons, fled by the back door, when Scipione came to visit him.⁴⁶⁵

In the case of Caravaggio, Scipione was ruthless. The suspicious removal of Caravaggio's *Madonna dei Palafrenieri* (fig. 102) from the papal grooms' church S. Anna, led to him acquiring the painting for a very low price. Further, it would seem that the pardon given to Caravaggio after the killing of Ranuccio Tomassoni, was connected to Scipione Borghese receiving the *David and Goliath* (fig. 33) and also perhaps the *St John the Baptist* (fig. 103). A pardon should not have been difficult to get, as the

⁴⁶³ Coliva, 'Scipione Borghese as a Collector', 16-23.

⁴⁶⁴ Coliva, 'Scipione Borghese as a Collector', 17, and Alba Costamagna, 'Introduction', in Moreno and Stefani (eds.), *The Borghese Gallery*, 6-14.

⁴⁶⁵ Langdon, *Caravaggio*, 208-9.

circumstances of the ‘murder’ were not particularly clear, and Ranuccio Tomassoni was known to have provoked and challenged Caravaggio. Still, Scipione took advantage of the situation to gain possession of further works.⁴⁶⁶ His is the perfect example of someone whose urge to collect seems to have breached the boundaries of what could be considered socially acceptable. While his hoarding habits (there is evidence of over a hundred paintings acquired for free in one swift raid) very much suggest an urge for acquisition, his treatment of the objects as they were incorporated into the collection also suggests a keen interest in engagement as a viewer.

Scipione built the Villa Borghese on family land situated just outside the city walls. Most of the work was carried out in the early 1610s and it was finished in 1613. The architect was Flaminio Ponzio (1560-1613), one of Camillo Borghese’s favourites. Work on the grounds continued until 1620 when finally the gardens were completed. The house is in style very similar to suburban villas in Frascati. The space was purpose-built for Scipione’s collection and all his painting were moved there from his house in the Borgo. 200 pieces from his archaeological collection followed.⁴⁶⁷ The garden was an extension of the house and contained a collection of ancient sculpture. Borghese would use this palace and garden for official receptions of ambassadors from all over the world, the first being a Japanese Christian ambassador called Hasekura Tsunenaga in 1615. Thus, even though the palace was designed to house Scipione’s collection, it functioned very much in an official capacity. The palace was open to artists who could compare ancient with contemporary works. Bernini, Domenichino, Guido Reni, Rubens, Velásquez and Poussin are among the artists who made use of the collection.⁴⁶⁸

The original display was organized mainly around contrasting groups of paintings and sculpture with the same theme. Bernini’s *David*, for example, was juxtaposed with a painting of David by Cesari. This may reflect an interest in the Paragone debate. There were also more surprising sections reminiscent of curiosity-display. In the Stanza di Apollo e Dafne, which contained a first-century AD vase with Bacchic motifs, there was also a contemporary automaton with a screeching monster which popped out of a chest. In the large salon, the displays were less spectacular but still included deliberate juxtaposition. There were busts of the twelve Caesars interspersed with columns, on top of which were placed ancient statuettes, and a large

⁴⁶⁶ Coliva, ‘Scipione Borghese as a Collector’, 16-23.

⁴⁶⁷ Costamagna, ‘Introduction’, 6-14.

⁴⁶⁸ Herrmann Fiore, ‘Scipione Borghese’s New All’antica Villa’, 24-31.

ancient statue of a reclining Bacchus. The walls were hung with Scipione's finest contemporary paintings; Caravaggio's *Madonna dei Palafrenieri*, a large collection of works by Cesari, a *Judith with the Head of Holofernes* by Baglione, a few works by Cigoli, and a *Crucifixion* by Tempesta. All of the modern paintings were either allegories, like *Fame and Rome* or religious works; the latter predominated. These were juxtaposed with ancient non-Christian works. The intent would appear to have been to show the glory of Rome, both in its contemporary Christian splendour and in its past greatness.⁴⁶⁹

Sculptures by Bernini were often displayed as the main focus of a room. Genevieve Warwick has argued that the *Apollo and Daphne* (fig. 92) is a work which above all others calls for the engagement and even the participation of the viewer. She begins her argument with a quote from Lelio Guidicicci (1570-1643) who wrote that Bernini was a miracle maker who was able to make marble talk.⁴⁷⁰ She ties the engaged viewing of this lifelikeness, comparable to that which forms the theme of the Pygmalion myth, to the early modern spectatorship of theatre, to the emotional response of wonder and the effects of movement. Her interpretation of Bernini's power to enchant is echoed by Francesco Scannelli who wrote about Caravaggio's life in 1657. For Scannelli, Caravaggio engaged the spectator by painting figures and narratives that conquered nature in 'truth, vigor, and relief'⁴⁷¹ and he would;

‘bring confusion to the viewer through his astonishing deceptions, which attracted and ravished human sight: and so he was regarded by many as being most excellent above all others.’⁴⁷²

In at least two cases, Giustiniani's *Victorious Cupid* the Borghese's *Apollo and Daphne*, the astonishment or surprise the viewer was to experience in front of the artists' works were augmented through the display strategies of the patrons. Their control of viewer-engagement with these works is thus also an important factor to take into account.

Scipione Borghese was an interesting patron both in the way that he acquired works and the way he displayed them; however, there are other patrons who deserve a

⁴⁶⁹ Herrmann Fiore, ‘Scipione Borghese’s New All’antica Villa’, 24-31.

⁴⁷⁰ Cited in Genevieve Warwick, ‘Speaking Statues: Bernini’s *Apollo and Daphne* at the Villa Borghese’, *Art History*, 27/3, (2004), 353-381.

⁴⁷¹ Scannelli, *Il Microcosmo*, in Hibbard, *Caravaggio*, 357.

⁴⁷² Scannelli, *Il Microcosmo*, in Hibbard, *Caravaggio*, 357.

mention, even if briefly. Cardinal del Monte and the Mattei brothers were very different kinds of patrons. Caravaggio lived in their houses and so belonged to their entourages. In some measure this can be understood as meaning that they collected him as a person instead of simply collecting his paintings. Del Monte has been seen primarily as a kind of saviour for Caravaggio, someone who recognised the talent of the artist and spread his fame.⁴⁷³ The Mattei brothers on the other hand, have been discussed as potentially influential both in terms of Caravaggio's interest in classical art as source material and his interpretations of religious subjects. Marquis Ciriaco Mattei had a keen interest in classical sculpture and Cardinal Asdrubale Mattei (1556-1638) was one of the strictest adherents to the tenets of the Counter-Reformation.⁴⁷⁴ The Mattei were not the most prolific acquirers of Caravaggio's works. However, they were steady patrons in that they supplied a roof over the painter's head and as they outranked both Giustiniani and del Monte in power and influence they most likely had a beneficial effect on Caravaggio's reputation.⁴⁷⁵

Del Monte is the second in the line of Caravaggio's patrons in terms of the number of works acquired. He bought at least eight paintings directly from the artist and acquired even more through gifts and second-hand purchases. His wealth was less than that of the other patrons and so, his choices included mainly genre paintings which were less expensive than large religious narratives. His acquisitions include Caravaggio's *Cardsharps* and the *Fortune-Teller* (figs. 51 and 39). Del Monte also favoured Caravaggio's musical subjects: he owned one painting depicting a group of musicians and one representing a lute player. The first is known to have hung in a room with other such paintings, which included works by Gerrit van Honthorst and Antiveduto Grammatica (1571-1626) and others for which the artists' names are not recorded. Secondly, buying paintings at the early stages of Caravaggio's career also meant that del Monte most likely had to pay less than Giustiniani, Mattei or Borghese at subsequent phases in the artist's career. 700 paintings are listed in the inventory of his possessions made at his death, over half of which were portraits. Of the named artists, Caravaggio has the highest number of entries.⁴⁷⁶

It is thus clear that there were several patrons who supported Caravaggio and bought his paintings. While Scipione Borghese did not seem to have endorsed the artist

⁴⁷³ Langdon, *Caravaggio*, 96-130.

⁴⁷⁴ Gilbert, *Caravaggio and his two Cardinals*, 100-34

⁴⁷⁵ Gilbert, *Caravaggio and his two Cardinals*, 110.

⁴⁷⁶ Gilbert, *Caravaggio and his two Cardinals*, 100-34.

as an individual, the others offered him both room and opportunities to further his career as an artist. Furthermore, in the case of Borghese, collecting can be seen as an urge as well as an intellectual pastime. His interest in the arts of Bernini, as the sculptor who could make marble seem like flesh, correlates well with the types of positive statements made about Caravaggio's work. Indeed, his attempts to engage the viewer went far beyond the types of displays Vincenzo construed; revealing the *Victorious Cupid* from under a silk cover. While Bernini's work seemed to leap in out of the corner of a room and transform in front of the viewer's eyes, the screeching monster automaton was a surprising addition to his art collection.

4.3.5: Competing in art and display

Caravaggio's paintings were different from anything seen before in Rome and the influence of his paintings and working practices spread quickly. This rapidity of spread was largely due to an influx of artists in Rome at this time, many of whom would have seen paintings by Caravaggio firsthand. Velazquez and Ribera both came from Spain. Elsheimer and Rubens came to Rome from northern Europe. The Carracci attracted painters like Guido Reni from Bologna. And artists living in Rome, like Orazio Gentileschi, Baglione and Saraceni, all found something in the new style that they could use and develop in their own works. Even though these artists came from various different backgrounds and painted very different types of works, they adapted a variety of features from Caravaggio's work.⁴⁷⁷ This borrowing of features, does not however, suggest that the artists in Rome were all on friendly terms and treated each other as colleagues. Indeed, the influx of painters made the art market particularly competitive.

Competition and rivalry in general was usual in Rome around 1600, but one of the important aspects of patronage in this period is the use of competition to serve the advancement of the arts. The competitive market was not necessarily beneficial to the artists or the development of the arts. Large commissions for churches, even though plenty in number before the 1600 jubilee, could not supply all the painters with work. Caravaggio was, for example, neglected in favour of more traditional painters like Ludovico Cigoli (1559-1613) and Domenico Passignano (1559-1638), for work in St Peter's, which provided the most sought-after commissions in the city. An interesting

⁴⁷⁷ Benedict Nicholson, *The International Caravaggesque Movement*, (Oxford: Phaidon, 1979) and Moir, *The Italian Followers of Caravaggio*.

point is that Cigoli won his commission through del Monte (and Grand Duke Ferdinando de' Medici). The situation for the artists in Rome was not necessarily stable and Caravaggio's success with del Monte as his patron could have led, but did not lead, to a papal commission. A more illuminating example of the temporary nature of success in the Roman art world is Annibale Carracci whose Farnese Ceiling was renowned and widely appreciated. Despite this fame, his patron, Cardinal Odorando Farnese (1573-1626), paid him the meagre sum of 500 scudi for his efforts and humiliated the artist by sending the money in a saucer. This has been considered as the main reason for Annibale's slow demise; his productivity diminished steadily after this point.⁴⁷⁸ Thus, while it is clear that the art world in Rome was competitive, the artists did not always reap benefits from their successes.

This type of competition aside, Caravaggio's competition pieces were closely related to an actual programme of development, used by patrons to push their artists and develop better art works. One good example is Caravaggio's *Victorious Cupid*, painted in competition with the Farnese Ceiling. While this could be understood as a contest devised to evaluate two separate styles it seems that the motives were more general. Caravaggio's painting was followed by other competitive pieces, which suggests that it was a more widespread practice, not necessarily dependent on style. Baglione painted two pieces titled *Divine Love Overcoming the World, the Flesh, and the Devil* (figs. 104 and 105) for Benedetto Giustiniani. Here Divine Love can be seen chastising a Caravaggesque Cupid lying defeated on the ground. Possibly a commentary on Caravaggio's lascivious cupid, this presents the viewer with a more morally refined image. It is crucial that Baglione made a point of disclosing that the figures were painted from nature. It is thus clear that 'painting from nature' could be used as a complimentary statement. It is interesting that Baglione at the time was not on good terms with Caravaggio and criticised his working techniques. Orazio Gentileschi criticised Baglione's achievements with the two paintings. However, the patron clearly appreciated them. Benedetto Giustiniani awarded Baglione with a gold chain as a compliment on his work and it is clear that he was very successful. The artist even gained one of the most prestigious commissions in Rome, an altarpiece on the theme of the Resurrection for the Gesù, one of the most important religious centres of the time.⁴⁷⁹ Caravaggio's *Victorious Cupid* may be his most critically acclaimed small-scale picture.

⁴⁷⁸ Langdon, *Caravaggio*, 252-74.

⁴⁷⁹ Langdon, *Caravaggio*, 252-74.

4.4: VIEWER ENGAGEMENT; THE PATRON AND COLLECTOR – CASE

STUDY 2: VICTORIOUS CUPID, ST MATTHEW AND THE ANGEL AND DOUBTING THOMAS

4.4.1: Victorious Cupid

The *Victorious Cupid* (fig. 12) has preoccupied art historians because of the sexual content; the Cupid's pose is awkward and the composition is focused on his naked body. The painting also has a clear emphasis on touch and movement, which emphasises the nudity of the boy. The tip of the wing touches the Cupid's thigh and his pose suggests that he is moving. Tactility is further suggested through the juxtapositions of soft and hard features. The skin, the sheet and the feathers of the wings are juxtaposed with hard objects and sharp implements, such as the crown and sceptre, the armour, the T-square and the compass, the instruments and Cupid's arrows. The various aspects of tactility would most likely activate the 'touching sight' in the somatosensory cortex. In the *Victorious Cupid* the lifelikeness and impact on the viewer can be connected to Caravaggio's depiction of the boy's pose and the emphasis of touch. Indeed, the impact of the painting, particularly its sexual suggestiveness, has led art historians to several conclusions about Caravaggio's sexuality.

Hibbard provides one of the most explicit discussions of sexual content in the painting calling the boy Cupid an 'object of pederastic interest'.⁴⁸⁰ Friedlaender suggested that the green curtain was hiding the image as 'more conservative onlookers were doubtlessly shocked by its audacity'.⁴⁸¹ Spike refrains from making a judgement on the viewer but has no doubt about Caravaggio's intentions; 'Whether that sexual intimacy was presumed by viewers responding to the painter's shameless visual probing of the model's prepubescent nudity cannot be determined.'⁴⁸²

These suggestions are further supported by a few pieces of evidence that seem to suggest that Caravaggio may have been a homosexual and/or even a paedophile. The model for *Victorious Cupid* was first mentioned by the English traveller, Richard Symmonds, who recorded the painting's details in a notebook in 1649-50. Symmonds names the boy model as 'Checco del Caravaggio'; 'Twas the body & face / of his owne

⁴⁸⁰ Hibbard, *Caravaggio*, 157.

⁴⁸¹ Friedlaender, *Caravaggio*, 94.

⁴⁸² Spike, *Caravaggio*, 104.

boy or servant / that laid with him.⁴⁸³ This is the main piece of evidence for Caravaggio's homosexuality. The follower of Caravaggio called Cecco del Caravaggio did paint sexually provocative imagery and his *Amor at the Fountain* (fig. 106) presents a young man with vast wings drinking from a phallic waterspout. However, whether or not this young man was Caravaggio's model is not clear. As Cecco had been active in Rome around 1610-20, it is possible that Symmonds drew his own conclusions after seeing Cecco's paintings. The second bit of evidence comes from the court record in which Baglione accused Caravaggio of sharing a 'bardassa', a catamite, with a friend in the libel trial of 1603.⁴⁸⁴

These pieces of evidence should not be taken lightly, but they are not as dependable as it would first appear. In response to the first and most direct evidence that Cecco del Caravaggio was Caravaggio's lover/victim, Varriano has noted that Italy often was seen in this period as a nest of sin, an observation that was quite commonly repeated by visiting tourists. He quotes the Scot, William Lithgow, who seems to suggest that all the Italians did was serenade the beauty of and pleasure to be had from young street boys.⁴⁸⁵ This type of expectation on behalf of the tourist could explain Richard Symmonds' assumptions. In response to the second piece of evidence, it is also possible that the statement Baglione made at the trial should not be taken literally. The trial records are full of sexual swear-words and accusations that do not seem to be well founded. Therefore Baglione's statements do not prove that Caravaggio used the services of street boys. Langdon has added to this debate by referring to Caravaggio's consorting with prostitutes.⁴⁸⁶ Caravaggio's sexuality cannot be determined from the evidence at hand and, as will be explained below, it is irrelevant in the analysis of *Victorious Cupid*.

Baglione's competition piece *Divine Love*, corresponding to Caravaggio's *Victorious Cupid*, is another piece of evidence used to suggest that Caravaggio's imagery was considered inappropriate. Baglione's painting was dedicated to Benedetto Giustiniani and he received a gold chain as a reward. The image shows an armoured Cupid, who looks more like a St Michael, chastising a Caravaggesque Cupid, lying awkwardly on the ground with his broken arrows. This could have been intended as a moralising criticism of Caravaggio's depiction. However, it is interesting that

⁴⁸³ Reproduced in Langdon, *Caravaggio*, 220.

⁴⁸⁴ Varriano, *Caravaggio*, 66.

⁴⁸⁵ Varriano, *Caravaggio*, 66.

⁴⁸⁶ Langdon, *Caravaggio*, 220.

Gentileschi criticised the image, observing that Cupid is normally shown as a boy and nude, so confirming the propriety of Caravaggio's image. Indeed, he commented that in a second copy of *Divine Love*, also made for Benedetto, Baglione exposed both more of the character's torso and his leg.⁴⁸⁷

The main point, which is continuously ignored in this debate about the sexuality of Caravaggio, Giustiniani and Cecco, is that the image was praised by several biographers and hung in the main gallery of Giustiniani's collection. It is highly unlikely that a painting that contained Caravaggio's lover and that would call Giustiniani's own sexuality into question would be the pride of his collection and prominently displayed in the main gallery of his palace.

Langdon cautions that Vincenzo could not have flaunted the image in this way if any of these perceptions had been common at the time.⁴⁸⁸ However, she also plays down the role of sex in the imagery, laying more emphasis on the ways in which the painting engages the spectator. Avoiding to mention the sexual content, as a part of the viewer experience, she describes instead the cupid's 'intensity of presence'⁴⁸⁹ and its 'vivid sharpness and clarity'.⁴⁹⁰ This is not entirely convincing. However, it is certainly in keeping with what the biographers had to say about the painting.

Importantly, none of the biographers mention anything negative about the image. Baglione describes it as painted from life, with good treatment of colour and notes that it was this piece that made Vincenzo Giustiniani passionate for Caravaggio's work.⁴⁹¹ If there had been anything improper about the image, it is likely that he would have brought it to the reader's attention, since he was the one who stated that Caravaggio had a 'bardassa' and painted the competition piece for Benedetto. Bellori simply mentions the iconographic details of the image without making a judgement on it.⁴⁹² Both Scannelli and Sandrart write that the Cupid is so lifelike that it could just as well be real. Sandrart adds that the effect is reached through correct drawing, coloration, clarity and relief.⁴⁹³ This is crucial. It seems likely that had there been any prevalent sense of impropriety about this image, the biographers would more than likely have

⁴⁸⁷ Langdon, *Caravaggio*, 259.

⁴⁸⁸ Langdon, *Caravaggio*, 221.

⁴⁸⁹ Langdon, *Caravaggio*, 214.

⁴⁹⁰ Langdon, *Caravaggio*, 214.

⁴⁹¹ Baglione, *Le Vite*, in Hibbard, *Caravaggio*, 353.

⁴⁹² Bellori, *Le Vite*, in Hibbard, *Caravaggio*, 366.

⁴⁹³ Scannelli, *Il Microcosmo*, in Hibbard, *Caravaggio*, 358 and Sandrart, *Joachim von Sandrart's Academie*, in Hibbard, *Caravaggio*, 378.

criticised it to some extent. Since they deplore the improprieties of Caravaggio's use of prostitutes as models, it seems improbable that they would have let any similar issues concerning the *Victorious Cupid* go unremarked. It is of course possible that these authors were worried it might reflect badly on them (for noticing that level of impropriety) or Giustiniani (a good source of patronage). In such instances they could have simply remained silent about the painting. However, all of them mention it in either a neutral or a distinctly positive light.

Sidestepping the sexual content in the image may seem disingenuous. Even though the biographers do not mention it, the subject matter presupposes sexual content. Furthermore, there are several instances of erotic humour in Caravaggio's works and particularly the early depictions of boys (with various types of fruit symbolising sexual organs and buttocks) have a sexual content (fig. 107). These have been considered a part of a larger culture of erotic wit and not necessarily showing any signs of Caravaggio's sexual preferences.⁴⁹⁴ Indeed Caravaggio's puns were less obvious than those painted by at least one of his predecessors. Raphael's Cupid and Psyche in the Farnesina (fig. 108) is surrounded by a flower and fruit border painted by Giovanni da Udine showing a gourd prodding a bursting fig, leaving little to the imagination (fig 109).⁴⁹⁵ It is likely that both Caravaggio and Cecco followed in this established tradition. It can only be assumed that the patron and Caravaggio's critics thought this appropriate to the context and subject.

Taking the tradition of sexual witticisms into account, the *Victorious Cupid's* arrows can be understood as sexualised as a consequence of the subject matter and the sceptre piercing the crown and mirroring the quill and the laurel wreath may also be sexually suggestive. However, there are more direct ways of explaining the sexual content of the *Victorious Cupid*. The first issue is that there were various types of Cupids and a complex system of iconographic reference developed in the sixteenth century was firmly in place by the early seventeenth century. Caravaggio's depiction was denoted Earthly Love, rather than Divine or Carnal Love. Gentileschi called it 'Earthly Love' or 'Amor Terreno' in the libel trial in 1603. It also corresponds well with a widely known allegorical system going back to Marsilio Ficino's (1433-99) writings

⁴⁹⁴ Erotic connotations of food have been discussed by Adrienne Von Lates, 'Caravaggio's peaches and academic puns', *Words & Image*, 11/1, (1995), 55-60. and John Varriano, 'Fruits and Vegetables as Sexual Metaphor in Late Renaissance Rome', *Gastronomica: The Journal of Food and Culture*, 5/4, (2005), 8-14.

⁴⁹⁵ Varriano, 'Fruits and Vegetables', 8-14.

on the topic of Cupid in the mid fifteenth century, in which Earthly Love is designated as the source of intellectual and gentlemanly pursuits.⁴⁹⁶ This would account well for the incorporation of Giustiniani's interests in the canvas.

The objects depicted in the picture constitute the most telling evidence of Giustiniani's input as they reflect his interests and it is thus likely that the image was commissioned. However, without direct evidence this is far from conclusive. It could also have been an introduction piece from Caravaggio, or it could have been a gift from del Monte. Whatever the origin of the project, the painting would appear to have been made with Vincenzo Giustiniani in mind as its future owner. Caravaggio drew attention to the interests of his patron. Vincenzo's interest in music is represented by the violin, the lute and a musical score, which starts with the letter V, perhaps alluding to the name of the patron).⁴⁹⁷ The eagle wings may be a direct reference to the eagle of the Giustiniani arms.⁴⁹⁸ Vincenzo's proficiency in architecture (he designed the family summer palazzo at Bassano di Sutri⁴⁹⁹) is present in the geometrical tools, a compass and T-square. The astronomical globe, the piece of writing, the quill and the laurel wreath cover other intellectual pursuits, while the armour, the crown and the sceptre all allude to different types of earthly power being subdued by the laughing *Victorious Cupid*.

The image thus shows all of Giustiniani's interests as vanquished by the *Victorious Cupid*. Vincenzo can be understood as the master of all the fields of study through the array of collected objects. The objects displayed represent a microcosm of power. By owning the picture Vincenzo shows himself to be the controller of these objects/subjects. As the person who displays the Cupid he also shows his control over the visiting viewer's response.

There are several artistic references for the imagery. The most obvious comparison is the ceiling of the Farnese Gallery and with *Victorious Cupid* Caravaggio competes with Annibale Carracci. However, Caravaggio is also referencing Michelangelo. Annibale Carracci used Michelangelo's work as a source for his ceiling in the Farnese Gallery and Caravaggio also based his composition on the artist's work. As such, Caravaggio is competing in the same subject matter with the same sources.

⁴⁹⁶ Spike, 102. Marsilio Ficino, *Commentary on Plato's Symposium on Love*, trans. Sears Jayne, (Dallas: Spring Publications, 1985), 36-7.

⁴⁹⁷ One possible reading of this juxtaposition is a comparison and perhaps connection of the power of the musician's instrument with the arrows of Cupid.

⁴⁹⁸ Spike, *Caravaggio*, 102.

⁴⁹⁹ Salerno, 'The Picture Gallery of Vincenzo Giustiniani – 1: Introduction', 21-27.

While the structure of the Farnese gallery is a play on the Sistine Chapel ceiling, Caravaggio's closest model was most likely St Bartholomew from the *Last Judgement* (fig. 110) and Michelangelo's sculpture *Victory* (fig. 111). While the lower body is very similar to *Victory*, the whole pose is reminiscent of St Bartholomew, in particular Cupid's right hand holding the two arrows is similar to the saint's hand, which holds the knife with which the apostle was flayed. A final point of comparison with Michelangelo is provided by the hand behind Cupid's back which is close to the hand behind the back of an *ignudo* in the Sistine Chapel ceiling, where there are several other contorted poses that could have served as inspiration for Caravaggio. The subject matter of Michelangelo's *Victory* could have been an important factor in Caravaggio's decision to use it as a model for his painting. Further, sculpture in general may have appealed to Caravaggio's use of relief in painting.

The Cupid's pose has been considered awkward by art historians mainly concerned with the sexual content of the painting and the problematic way in which the boy is displayed. However, if the pose is discussed as a crucial element of the subject matter the scenario becomes more understandable. Cupid's foot is depicted as if it has just reached the floor while the other leg is still on the table. (It could be a bed given the presence of a sheet, however; it seems too tall for this purpose.) With the hand behind he steadies himself and at the same time this pushes his lower body forward as he steps down from a previous position. Since the Cupid is depicted in movement between being supported by the table and the ground, the pose would most certainly activate the neurons of area MT. The pose implies that he was formerly on top of the table, now on his way down from the table, and possibly even about to approach the spectator.

It would appear that Caravaggio is here attempting to address a particular topical conceit with this competition piece, which was widely admired for its lifelikeness. He shows Cupid as a sculpture that has come to life, climbing off the display and perhaps even into the space of the viewer. In this he engages with the debate over the *paragone*, making the case for painting being superior to sculpture. Not only was the pose of his figure taken from a sculpture; Vincenzo Giustiniani also had several ancient sculptures of Cupid in his collection.

Langdon has noted that in this competitive piece Caravaggio makes a statement about his ability as a painter. As the painter of a Cupid who could conquer all, he could

be all powerful. Caravaggio's contemporary and friend, the poet Marzio Milesi, recognised this and praised Caravaggio's efforts by comparing him to Cupid:⁵⁰⁰

‘Love conquers all things, and you painter conquer all things;
He indeed conquers souls, but you bodies and souls.’⁵⁰¹

By placing the boy in this pose Caravaggio also emphasises the subject matter.

Victorious Cupid as a subject involves elements of contradiction. Cupid is necessarily connected to sexuality as he is the god of a variety of loves. And yet he is depicted as a child. Caravaggio represents Cupid with his lethal arrows: one to kindle love and the other to create chaos.⁵⁰² His Cupid looks vulnerable as his pose is awkward, the soft texture of his skin is emphasised, his foot steps very close to hard objects on the floor. And yet, he is laughing and he is holding on to weapons, intimating that he might just be the most dangerous child in the world.

The activation of different areas of the brain would support this type of reading. The neurons of area MT and the somatosensory cortex elicit empathetic responses in the viewer, who reacts to the vulnerability of the pose and the soft touches. At the same time, the smiling face of Cupid and the secure grasp he has on the arrows activate facial expression recognition areas and the mirror neurons in the premotor cortex. The effect is contradictory, simultaneously making the viewer empathise with the vulnerability of a child and being unsettled by the smile and the brandishing of weaponry. Furthermore, the use of shadow highlights the boy's body and the movements of it. The lifelikeness and the relief are thus created through the Caravaggio's distinctive use of shadows and closely connected to his depiction of movement.

The Cupid needed to have a powerful effect on the viewer to be a successful competition piece. The quality of lifelikeness and the surprise following the unveiling of the piece, its revelation from under a cover, would have made the image engaging to an audience that was expected to respond with astonishment and then attentive admiration, as if responding to a collection in a Wunderkammer. Sandrart's statement that the picture was the best in the collection may have been an extravagant claim, as Vincenzo

⁵⁰⁰ Langdon, *Caravaggio*, 215. Maurizio Marini, *Io Michelangelo da Caravaggio*, (Rome: Studio 'B' di Bestetti e Bozzi, 1974), 396.

⁵⁰¹ I use Langdon's translation *Caravaggio*, 215. ‘Omnia vincit amor, tu pictor et omnia vincis scilicet ille animos, corpora tuque animos’ reproduced in Marini, *Io*, 396.

⁵⁰² Langdon, *Caravaggio*, 216.

kept paintings by both Titian and Raphael in the same room. However, the engagement of the viewer was carefully orchestrated and this allowed Giustiniani to stun the viewers.

4.4.2: *St Matthew and the Angel*

In comparison to the praise accorded to the *Victorious Cupid*, Caravaggio received a shower of insults for the *St Matthew and the Angel* (fig. 13). The rejection of this painting by the priests at S. Luigi dei Francesi has received much attention. The various rejections are highlighted by the seventeenth-century biographers. While Baglione explains the rejection by writing that the picture ‘pleased nobody’,⁵⁰³ Bellori elaborates, writing that the image was taken down by the priests because of the lack of decorum of the figure whose feet were ‘rudely exposed to the people’,⁵⁰⁴ and observing that he simply did not look like a saint.⁵⁰⁵ Baglione suggests a reason for why Vincenzo Giustiniani desired to salvage the image. He states that *St Matthew and the Angel* was rescued, not because the painting was considered a good work of art, but because the painting was by Caravaggio who had painted Vincenzo’s *Victorious Cupid* (fig. 12). While trying not to criticise the well-respected collector, Baglione states that Giustiniani’s mind had been led astray by the rumours spread by a friend of Caravaggio, Prosperino delle Grottesche.⁵⁰⁶ Bellori expanded on the consequences of this rejection and wrote that Caravaggio was in despair over the commotion, while Giustiniani is presented as having mercifully intervened.⁵⁰⁷

Langdon notes that Caravaggio was not the only person agonising over the commission for the Contarelli Chapel. In 1600, Jacob Cobaert (1535-1615), a Flemish sculptor who was to produce a *St Matthew and the Angel*, was only paid for a *St Matthew*. The Contarelli were not pleased with the unfinished work when it was displayed in the chapel and instead commissioned a painting from Caravaggio to take its place. The sculpture was rejected in February 1602 and Caravaggio was commissioned

⁵⁰³ Baglione, *Le Vite*, in Hibbard, *Caravaggio*, 353.

⁵⁰⁴ Bellori, *Le Vite*, in Hibbard, *Caravaggio*, 365. I translate into ‘people’ rather than Hibbard’s ‘public’.

⁵⁰⁵ Bellori, *Le Vite*, in Hibbard, *Caravaggio*, 365.

⁵⁰⁶ Baglione, *Le Vite*, in Hibbard, *Caravaggio*, 353.

⁵⁰⁷ Bellori, *Le Vite*, in Hibbard, *Caravaggio*, 365.

to complete the replacement before Pentecost, late in May (the 26th or the 23rd⁵⁰⁸), the same year. One of the features of the first St Matthew is the apparent relief of the figure of the saint, and it is possible that here also Caravaggio was comparing his skill as a painter to that of a sculptor.

The Contarelli had appreciated the *Calling of St Matthew* and the *Martyrdom of St Matthew*, the side wall paintings in the chapel, devised by Caravaggio for the jubilee in 1600 (figs. 1 and 3). Caravaggio was to be paid 150 scudi for his service and in the event that the commission was not completed on time the Contarelli would find yet another artist to do the job.⁵⁰⁹ The sum was not high when one considers that he received 400 scudi for the two flanking pictures.⁵¹⁰ Caravaggio worked closely to the prescription stipulated in the commission and painted a St Matthew in the process of writing the gospel with an angel on his right. It was also specified that both figures should be life-size. What Caravaggio produced in the first *St Matthew and the Angel* was for some reason not acceptable to either the priests or the Contarelli (or both) and he replaced it with another image. This was finished very quickly and Caravaggio was paid in September of the same year.⁵¹¹

St Matthew is shown sitting on a chair (very likely the same chair as was used for *The Calling of St Matthew*), with his right leg crossed awkwardly over his left. The saint's right foot is thrust towards the viewer. Beyond mentioning the dirty feet, Bellori, in the same context, drew attention to the fact that the saint was depicted with crossed legs. These were the distinguishing features, mentioned by Bellori to identify the image. This would also render the movements (at least the pose of the legs) important, however, they were not Caravaggio's own invention, Lavin notes that crossed legs were often used in depictions of St Matthew. One of the most strikingly similar examples is an engraving after Raphael, by Agostino Veneziano.⁵¹²

St Matthew balances a book on his lap, clutching it with his right hand and writing in it at the same time. The angel leans in towards the saint and guides his hand across the page. The writing is visibly in Hebrew. The angel's pose is contrasted to that

⁵⁰⁸ Hibbard, *Caravaggio*, 138, the difference in dates could depend on miscalculations or that Langdon has found further evidence of the specific date of the installation, as it would necessarily be before rather than on Pentecost Sunday which is Hibbard's date. Langdon, *Caravaggio*, 237.

⁵⁰⁹ Langdon, *Caravaggio*, 237-40.

⁵¹⁰ Hibbard, *Caravaggio*, 93.

⁵¹¹ Langdon, *Caravaggio*, 237-40

⁵¹² Irving Lavin, 'Divine Inspiration in Caravaggio's Two St Matthews', *The Art Bulletin*, 56/1, (1974), 59-81.

of the saint. While St Matthew is depicted as slightly clumsy, the angel's pose is graceful, in a gentle bow from the foot to the head, with finely detailed wings spread out behind the body. Light falls on St Matthew's legs, elbow and neck, contrasting the shadow with lighter areas on the forehead and balding head and emphasising the wrinkled brow. The saint is not looking at the text that he is writing but rather stares into the air in front of him, with a look of astonishment on his face. The angel's face is lit, and the gaze is directed towards the text which is being written. Unfortunately, this first St Matthew, which was destroyed during the Second World War when the Kaiser Friedrich Museum was heavily damaged, only survives in black-and-white photos; the use of colour in the two paintings cannot be compared.

Lavin has suggested that the appearance of the saint is close to depictions of Socrates. The saint is shown as stocky, with a big head and an unflattering large, flat and round nose. St Matthew does not have the traditional appearance of a saint, something that Bellori remarked on. That the angel guides the saint's hand could also suggest illiteracy and/or ignorance. According to Lavin, this is a feature which connects Caravaggio's St Matthew to Socrates. Ignorance was recognised as Socrates' source of wisdom. 'Christian Socrates' was also used as a descriptive title for Filippo Neri.⁵¹³ The conceit of combining ancient philosophy and Christianity was a commonplace strategy in the early seventeenth century. Counter-reformatory discourse Christianised pagan philosophy and in this way brought ancient civilisation and Christian values and morals into unison. An ignorant Matthew is indeed historically convenient as it explains the relation between God, God's word and the writer. St Matthew's hand is the important tool in the depiction, used by the Angel to deliver the message, while the gospel remains the word of God.⁵¹⁴ Whether or not contemporaries recognised that Socrates was the model for the saint's facial features and expression is crucial. And even though someone like Giustiniani would have recognised this reference, it is questionable whether the larger audience would have made such a connection.

The focus in the image is the angel touching St Matthew's hand, guiding it as he is made aware of God's words. The movement in the imagery engages the viewer, but more crucially here it emphasises the fundamental idea that the Gospels were not authored by the Evangelists; they were spiritually dictated to them. Thomas has argued that the saint's facial expression is not necessarily that of ignorance but rather one of

⁵¹³ Lavin, 'Divine Inspiration', 59-81 at 66-75.

⁵¹⁴ Lavin, 'Divine Inspiration', 59-81 at 61-6.

enlightenment. He also connects the humility of the pose and the character to Filippo Neri; however, he has a slightly different interpretation of the surprised face. He argues that the facial expression can be understood as a part of the saint's path to spiritual understanding. St Matthew is not depicted as a fool, but as the man who has chosen a simple life, over that of a tax collector, and who understands the word of God as it comes to him through the angel. The message, Thomas argues, is that any man can understand the word of God.⁵¹⁵

These are not necessarily contradictory arguments. While the hand guided by the angel suggests an unawareness of what the end product will entail, the surprised face can indicate the sudden realisation of the word of God. What Thomas is arguing is that the surprised expression on St Matthew's face is the surprised look of someone who has just reached understanding or 'got it'.

The text written in the open book held by St. Matthew is the Hebrew for 'The book of the generations of Jesus Christ son of David'. Hebrew as a language is significant as it was considered the language of God. Depicting Hebrew as the language Matthew wrote in signifies the accuracy of the word. The words also correspond to the Latin Bible used by the Church at the time. This is important as accuracy in imagery was one of the requirements of Counter-Reformation policy, which Cesare Baronio set out to enforce, in his determination to ensure that religious art followed the dictates of the Council of Trent and served to promote Roman Catholicism as the one true faith. While Caravaggio is most unlikely to have been capable of reading and writing Hebrew, several people in Rome were experts in the field. Federico Borromeo and Melchiorre Crescenzi were both educated in Hebrew and both had connections with the church of S. Luigi.⁵¹⁶ Lavin argued that the Hebrew, which was a novel feature of the painting, was Caravaggio's idea;⁵¹⁷ however, it is unclear how he would have acquired this type of knowledge. It is perhaps more likely that this feature was suggested to him by one of his patrons or by someone at the church, even though it is not stipulated in the contract. It is certainly questionable how effective the foreign script and language would be on the average Roman viewer and whether (s)he would have had any knowledge that what was being written was Hebrew and that it was the language of God.

⁵¹⁵ Troy Thomas, 'Expressive aspects of Caravaggio's first St Matthew', *The Art Bulletin*, 67/4, (1985), 636-52.

⁵¹⁶ Hibbard, *Caravaggio*, 138-44.

⁵¹⁷ Lavin, 'Divine Inspiration', 59-81 at 61-6.

Before looking at the second version it is useful to consider the sources for the painting at hand. In looking for pictorial precedents, Friedlaender emphasises Bellori's judgement by calling the first St Matthew crude. He further notes that a precedent for painting St Matthew looking like a common workman can be found in Lombard representations of the subject. Gerolamo Romanino's (1484/7-1560) *St Matthew and the Angel* in S. Giovanni Evangelista in Brescia (fig. 112) presents the viewer with a similar image of a simple cross-legged man, with an angel beside him, aiding him in holding a candle to light the page on which he is writing. This and Girolamo Savoldo's (1506-1548) *St Matthew* (fig. 113) are lit by painted candlelight, contrasting light and shadow to give relief.⁵¹⁸ Caravaggio develops this feature, although it is worth mentioning that even though the use of shadow and light to achieve dramatic relief became one of the characteristics of his work, he never included a candle as a light-source. Typically, the light depicted in Caravaggio's paintings is not depicted. Friedlaender also connects the composition to that of *Jupiter Kissing Cupid* by Raphael in the Farnesina (fig. 114). This comparison brings to the fore the juxtaposition between the young Cupid and angel and the old Jupiter and St Matthew. This juxtaposition of contrasting features was favoured by Caravaggio who also used it in his depiction of *Judith Beheading Holofernes*.⁵¹⁹

A comparison with the second version (fig. 2), that was accepted, reveals how atypical the first *St Matthew and the Angel* was. The differences between the first and second versions are many. In the second version, the saint is not clumsily bowed over a book. He is shown leaning with one knee on a stool, with the book on a table. His pose is dynamic as he turns his head back towards the Angel. The angel flies in from above, with brown wings and clothed in a white sheet. The movements of the characters are completely changed, and while the surprise on St Matthew's face is muted somewhat, the angel flying in from above can be seen to be surprising to the saint, even though this is not as explicit as in the first version. Furthermore, the facial type of St Matthew has changed, and is here more closely related to the way in which he is portrayed in the two large flanking narratives. Also, the writing in the book is not visible. The pose of the saint is certainly more dignified, although, the stool is shown tipping off the edge of the painting in a disconcerting manner. The soles of St Matthew's feet are not visible to the viewer and he is now provided with a halo. The angel's appearance has changed as well.

⁵¹⁸ Friedlaender, *Caravaggio*, 96-100.

⁵¹⁹ Friedlaender, *Caravaggio*, 96-100.

The first angel looks like a girl, while the second is certainly modelled after a boy. While in the first version the angel guides the faltering hand of the Evangelist with his own, in the later one he flies in from above making a gesture with his hand which seems to indicate that he is addressing St. Matthew. Another major difference is the eye contact between the two characters. Matthew has become an active protagonist, rather than a passive recipient, in the story.

From these differences, it seems that the changes have led to a more straightforward depiction of the saint. He is more recognisable and the imagery is simplified. While the inclusion of Hebrew, for example, may have satisfied the need for historical accuracy, it may have caused confusion to the average viewer. The halo identifies the character as a saint. Keeping the facial type close to the flanking paintings (fig. 1 and 3) also clarifies the identity of the Saint. Indeed it could help the identification in the *Calling of St Matthew* as well.

The first version of the painting may have included movements (the facial expression of surprise and the guidance of the hand) that clarify the historical accuracy of the word of God, but the appearance of the saint may not have been recognisable enough to the wider audience to be suitable for its setting in S. Luigi dei Francesi. However, the painting was very likely thought suitable for Giustiniani's Gallery. Giustiniani could engage with the imagery through the movements and understood their significance. The focus on touch enables empathetic responses to the characters through the activity of the somatosensory cortex. The facial expression has a similar impact. The premotor cortex would respond to the guiding of the saint's hand and his grasp of the pen. Together, these features make the narrative recognisable. It is notable that these features are not present in the second version, and indeed many of Caravaggio's works seem to have stretched the engagement of the viewer further than tradition allowed. While the movements, gestures and facial expressions are integral to one particular understanding of the narrative, other features of the imagery, notably the lack of halo, the Hebrew, and the depiction of a simple St Matthew, may not have conveyed the message clearly enough to the wider audience.

4.4.3: *Doubting Thomas*

Sandrart gives the most positive account of the *Doubting Thomas* (fig. 6). He writes; 'In it he represented the faces of all those present through such good painting and

modelling of the face and flesh that it makes most other paintings look like coloured paper.⁵²⁰ This comment is important as a testament to the lifelikeness of the imagery. Malvasia further comments that Alessandro Tiarini improved his own treatment of colour after studying a copy of the painting. Lionello Spada was so impressed that he even wanted to meet Caravaggio after seeing a copy of the image.⁵²¹

On the other hand, but not necessarily contradictorily, Malvasia includes a section about the painting in his account about the Carracci and writes that Ludovico Carracci said that it lacked decorum.⁵²² The idea that the *Doubting Thomas* breached decorum could have arisen from the simple appearance of Christ and his disciples. It is also possible that the bared flesh of Christ's upper thigh might have offended some people.⁵²³ However, the quality of the image was recognised and appreciated at the time since there were several copies made of it in the seventeenth century. The earliest of these was recorded in Genoa in 1606.⁵²⁴ The composition became particularly popular in Bologna, possibly as a consequence of Benedetto bringing the image with him on his travels there. This could suggest that it was he rather than Vincenzo who first owned the image.⁵²⁵ It was later in Vincenzo's collection, where it was hung as a 'sopraporta' over a door in the main gallery.

The main focus of the image is again movement, all of which is on the left half of the painting. St Thomas's surprised face is the most central. Christ's left hand holds and moves Thomas' hand. Thomas' finger prods the wound in Christ's side. The wound is revealed by Christ, who moves his clothing aside with his right hand. The somatosensory cortex and the mirror neurons in the premotor cortex would react to these features, facilitating the engagement of the viewer.

The contrasts between the lit areas, Christ's and Thomas's shoulder, Thomas's and the other apostle's forehead, and the dark faces of Christ and Thomas, is striking. The whole image moves from dark to light from behind the apostles to Christ. Thomas is depicted as a simple man and the tear in the seam on his shoulder which reveals the white shirt beneath both emphasises the poverty of the apostles and draws attention to the similar gash in Christ's side. The hands, the wound, St Thomas' elbow and the tear in his shirt all lie on one horizontal line. In neural terms there are thus several

⁵²⁰ Sandrart, *Joachim von Sandrart's Academie*, in Hibbard, *Caravaggio*, 377.

⁵²¹ Carlo Cesare Malvasia, *Felsina Pittrice*, vol. 2, (Bologna: Erede di Barbieri, 1678), 208.

⁵²² Malvasia, *Felsina Pittrice*, 205.

⁵²³ Friedlaender, *Caravaggio*, 161.

⁵²⁴ Friedlaender, *Caravaggio*, 162.

⁵²⁵ Danesi Squarzina, 'The Collections of Cardinal Benedetto Giustiniani. Part I.', 766-91 at 773.

possibilities for the engagement of the viewer. The touching of cloth, grabbing of hand, prodding of wound, pain of being prodded and surprised face all engage areas of the brain that include mirror neurons (or neurons that act like mirror neurons), and thus engage the viewer empathetically.

The story of St Thomas is from John 20:24. When Christ appeared to the apostles for the first time Thomas was not present. When told the good news, Thomas replied that he would not believe the others unless Christ appeared again and he could see the nail marks in his hands and touch the wound in his side. When Christ did reappear, he first asked whether Thomas now believed and proceeded to invite him to touch the wound. Christ then blessed those who believed even though they could not confirm their belief with their own eyes. The actual account does not recount that Thomas actually touched the wound; sight is the predominant vehicle for his belief. In fact, Caravaggio's depiction of the touching of the wound is uncommon. One of the most famous antecedents for this can be found in *The Small Passion* by Dürer (fig. 115).⁵²⁶ The emphasis on touch is integral to the subject matter and the painting demonstrates well the access gained to a narrative through sight alone.

The surprise on Thomas's face substantiates the narrative as it indicates the mental process that St Thomas goes through, from disbelief, through a sensual experience and a surprised response, to knowledge and inevitable belief. It is worth mentioning here that it is not clear what the source of the surprise is. In Caravaggio's painting Thomas does not actually look at the wound; equally the surprised St Matthew does not look at the text.⁵²⁷ In both cases, understanding seems to stem from the tactile aspects of the experience.

Sight is also important in the picture. While St Thomas does not look directly at the wound, the other apostles do. Christ looks, not at Thomas but rather on his own hand, which seizes St Thomas' hand. The apostles are in a similar position to the general viewer or Giustiniani who did not have tactile access to the knowledge in the way Thomas does through his empirical prodding. The saint gains knowledge through touching the wound, however for the viewer the understanding comes only through the sense of sight. The 'touching sight' provided by the neurons in the somatosensory cortex is thus particularly important in the viewing of this image. They allow for the

⁵²⁶ Friedlaender, *Caravaggio*, 162-3.

⁵²⁷ Varriano notes that Caravaggio's figures are not always looking in the direction which the spectator might expect, mentioning Judith in *Judith Beheading Holofernes* and the disciple to the right in *Supper at Emmaus*. Varriano, *Caravaggio*, 14.

understanding of Thomas' action and even assimilate that action. Furthermore, the grabbing would activate the mirror neurons and the prodding of the wound may activate pain processing areas, resulting in an empathetic response in the viewer.

The lack of direct access becomes a reminder for the believer that the senses are what connect us to the outer world but that God wants a faith that is not based in sense verification. The sceptical disciple who learns through empirical tests further recalls the scientific methods current in seventeenth-century Europe. Empirical enquiry has often been connected to a keen study of nature in the arts. This is especially the case for naturalism in painting from Northern Italy, where Leonardo has been associated with a growing empiricism in the sciences. That 'experience does not err'⁵²⁸ and is 'the mother of every certainty',⁵²⁹ was clear to Leonardo around 1500. This idea was particularly pertinent in early-seventeenth-century Rome due to Galileo, who was supported by the science-interested del Monte. It also influenced the study of natural specimens in collections, such as that of Ulisse Aldrovandi in Bologna or Johann Faber in Rome.⁵³⁰

The strand of curiosity collecting that particularly involved the recreation of life through artificial means is used by Pamela Smith to show the connection between empiricism in science and lifelikeness in art. She particularly mentions Dürer who connected the bodily experience involved in intense looking necessary for creating lifelikeness and the learning that the process affords. This could then feed back into his art.⁵³¹ Empiricism was thus as applicable within art as it was within science.

Varriano connects the realism of *Doubting Thomas* to the idea of empiricism in Caravaggio's working techniques. His argument is that the passage in the Bible is reinterpreted to bring this out and that the emphasis is on Christ urging Thomas to use his senses to believe. Scientists such as Galileo and interested patrons (for example del Monte) advocated the close inspection of things to enable learned reasoning and to increase knowledge of the world.⁵³² While this may seem to contradict the message of the Bible, it can be connected to the emphasis on evidence that preoccupied the Church

⁵²⁸ Leonardo da Vinci, *On Painting*, 10.

⁵²⁹ Leonardo da Vinci, *On Painting*, 10.

⁵³⁰ See Giuseppe Olmi, 'Science- Honour- Metaphor: Italian Cabinets of the Sixteenth and Seventeenth Centuries', in Oliver Impey and Arthur Macgregor (eds.), *The Origins of Museums*, (Oxford: Clarendon Press, 1985), 5-16.

⁵³¹ Pamela Smith, 'Artists as Scientists: Nature and Realism in Early Modern Europe', *Endeavour*, 24, (2000), 13-21.

⁵³² Varriano, *Caravaggio*, 60.

in early modern Rome. Tangible historical evidence, like the bodies of saints (St Cecilia was found in 1599), became an important factor in justifying the Roman Catholic faith.

John Moffitt connects the artist's struggle to create the appearance of life, or even actual life, to the religious idea of 'meraviglia' which was a term used increasingly in the sciences and was one of the components and subcategories of the label 'baroque'. As used in the sciences, it applied to the creations of God that were increasingly studied with new methods. Both microscopes and telescopes revealed the marvels of nature.⁵³³ The *Doubting Thomas*' reaction of surprise and astonishment is then interpreted as the precursor to depth of knowledge about the world, and as a consequence, belief in the Roman Catholic faith. Again, movement is at the centre of both engaging the spectator and is crucial to an understanding of the subject matter.

⁵³³ John Moffitt, *Caravaggio in Context, Learned Naturalism and Renaissance Humanism*, (London: McFarland & Company, 2004), 187-203.

4.5: CONCLUSION

Baxandall is certainly right in arguing that the consciously acquired skills of the patron are important in analysing a work of art. However, it is also crucial to consider automatic, emotional and empathetic responses in order to examine the patron and collector as a viewer and display. The habit of collecting is in itself a pervasive human behaviour which has evolved from the urge to hoard. It thus cannot simply be understood as a cognitive intellectual activity. It is also sensual, emotional and physical. This should not detract from, but rather contribute to, a discussion of the patron's skills, his collecting habits and his art-theoretical concerns. While Vincenzo Giustiniani was the most enthusiastic of Caravaggio's patrons, the circle of Caravaggio's closest patrons showed an interest in the emotional engagement of the viewer and followed intellectual pursuits closely connected to their collecting habits.

Crucially, the Giustiniani collection of Caravaggio's paintings reveals a variety of elements that suggest empathetic viewer-engagement. *Victorious Cupid*, *St Matthew and the Angel* and *Doubting Thomas* engage the viewer through movement. While several components are present, such as grabbing and pain, touch is certainly the most pertinent in all three. The tactility in the paintings is by means of the 'touching sight' reproduced in the viewer's brain and body. *St Matthew and the Angel* failed to impress, which most likely depended on issues of accessibility of the narrative, rather than Caravaggio's inability to engage the spectator. The first version included many features that only an intellectually skilled patron such as Vincenzo Giustiniani would appreciate and understand. In all three paintings, there is also an element of surprise, either in the facial expressions of the characters or as a part of the display. Surprise as an emotion in these paintings is connected to other phenomena of early seventeenth-century Rome; including lifelikeness in art, developments in the sciences and the counter-reformatory emphasis on historical accuracy. As a patron, Vincenzo Giustiniani was able to engage with the paintings on a personal level and to use his collection of paintings to engage his visitors both emotionally and intellectually.

Vincenzo encouraged competitions in the field of art. These were to improve the arts and the skills of the artists. The emphasis on lifelikeness, through illusion, relief or realism, is particularly prevalent in this context and the impact on the viewer is closely related to this feature. The human brain's capacity to 'complete' figures and to contextualise visual features is a main component of the functioning of the more

complex illusions in paintings and sculpture; these enable the brain to engage with the imagery. It is clear that the concern to engage the viewer through lifelikeness is also related to the skilful depiction of movement. Crucially, this is not limited to a few of Caravaggio's paintings; it is also an essential component in the work of Annibale Carracci and Bernini. The competitive advancement of art, as promoted by the patrons, comprised the adaptation of other painters' work methods, visual features and subject matters. So in competing with Leonardo, Caravaggio would aim for lifelikeness. In competing with Annibale on similar subject matter, he would include the feature of touch in his depiction of *Victorious Cupid*.

In placing Annibale Carracci and Caravaggio in the same category of painters, Vincenzo is the only author to assign both artists to the highest rank, on the grounds that they were skilled in painting both from nature and the imagination. Caravaggio can indeed be considered similar to Annibale Carracci and Bernini in his use of movement to create effects to engage the viewer. It is clear that Caravaggio's working practices, his 'realism' and his depictions of movement in paintings are closely linked. Vincenzo Giustiniani's interest in paintings was not restricted to a purely intellectual response. It is necessary to consider the full range of viewer experiences to understand the impact of the imagery.

PART 5: VIEWER ENGAGEMENT: THE PEOPLE IN ROME

5.1: INTRODUCTION

5.1.1: Caravaggio and his audience in Rome

Wittkower suggests that ‘(i) clarity, simplicity and intelligibility, (ii) realistic interpretation and (iii) emotional stimulus to piety’⁵³⁴ were the three categories that were the most important prescriptions for religious art in Italy around 1600. Paintings in churches were to be understandable and communicate directly to a range of viewers. They were to be realistic in the sense that they were not to depict the Crucifixion, for example, without a realistic level of suffering. And finally they were to move the spectator emotionally so that (s)he would be more likely to live piously.⁵³⁵ There was thus, already an expectation that paintings were supposed to engage their viewers.

Rome, around 1600, provided an environment in which audiences were particularly well adapted to experiencing empathy as an emotional response. This empathetic response has been connected both to the reawakened religious fervour of the Counter-Reformation papacy⁵³⁶ and to the ‘pan-human’ empathetic response mechanisms associated with mirror neurons.⁵³⁷ These two approaches are made to stand as opposing types of explanatory models: one cultural and one biological. This Part shows that such a separation is unhelpful and misleading.

It is worth exploring some of the basic elements of the situation before going into detail on the relation between nature, nurture and culture. Firstly, Caravaggio was not born or raised in Rome. Thus it is difficult not to relate his input back to his childhood and adolescence as well as to his professional training in the town of Caravaggio and the city of Milan. Even though the focus in this thesis is on Roman audiences, this restriction is problematic. Annibale Carracci provides a similar challenge, having been raised and trained as a painter in Bologna. They came from two different cultural backgrounds, and worked in the cultural context of Rome.

In many ways these factors work in favour of the argument that empathetic responses to painting are due to mirror neurons that are pervasive in human beings as well as other animal species. Freedberg’s argument about the human susceptibility to

⁵³⁴ Wittkower, *Art and Architecture*, 22.

⁵³⁵ Wittkower, *Art and Architecture*, 22.

⁵³⁶ Jones, *Altarpieces*, 103-10.

⁵³⁷ Freedberg and Gallese, ‘Motion, Emotion and Empathy’, 197-203.

movement in imagery being universal could be seen as particularly appropriate for a setting such as Rome where people from all over Italy and the rest of Europe gathered. However, Caravaggio's paintings constitute a break in the visual historical record. Indeed, both Caravaggio and Annibale Carracci are considered innovators in their field, providing the impetus for schools of new painters. This can clearly not be accounted for by some feature that is pan-human.

It is clear that art in the churches constituted an important part of the Roman Catholic Reform in the late sixteenth century and early seventeenth century. Paintings were used to move, to educate and to strengthen the belief of a variety of viewers. Art historians have used various tools to understand the impact of imagery on viewers. Pamela Jones' approach is strictly historical.⁵³⁸ In order to get an idea of what 'horizons of expectations',⁵³⁹ different types of viewers would have had, she contextualises commissions. The result is an overview of the types of issues audiences were interested in when looking at for example Caravaggio's *Madonna di Loreto*. While she acknowledges the importance of experience and draws on both Shearman⁵⁴⁰ and Freedberg⁵⁴¹ she finds both their approaches limited. Their approaches do not suit the rigorous historical context that she is interested in. Shearman takes a wide view of the Renaissance covering several hundred years of spectatorship while Freedberg focuses on universal emotional responses.

Jones refers to the connections between the viewer used to practising spiritual exercises and the art that functions as an aid in the process of creating real connections between the events of the scripture and the passions of the saints and the spectator. She writes that the 'intimate, personal relationship the pilgrim should have with the saints',⁵⁴² is connected to the paintings. However, her approach does not allow for a thorough investigation of this connection. The actual experience is not understood. Furthermore, it is only very rarely that direct textual evidence relating to viewer response can be found. Jones' approach of explaining spectatorship in terms of exhaustive contextualisation often falls short when it comes to analysing the experience of the viewer in depth because of her focus on the intellectual understanding of the works. However, ignoring the historical framework, as Freedberg does, creates other

⁵³⁸ Jones, *Altarpieces*.

⁵³⁹ Jones, *Altarpieces*, 2. Jauss, 'Literary History', 11-41.

⁵⁴⁰ Shearman, *Only Connect....*

⁵⁴¹ She refers to Freedberg, *The Power of Images*, and is equally true of the later Freedberg and Gallese, 'Motion, Emotion and Empathy', 197-203.

⁵⁴² Jones, *Altarpieces*, 107.

problems. The reasons for why people in Rome around 1600 would have been particularly susceptible to Caravaggio's innovations in art, such as movement, remain obscure.

The notion that neuroscience can only help the art historian to understand experience in the broad terms of common traits of the brain stems from a misunderstanding of how the human brain functions. This view is heavily dependent on the nature-versus-nurture debate. Misconceptions about the relation between these two categories thrive in both the humanities and the sciences. Importantly, the human brain develops through sensory and experiential input. Neuroscience can clarify how particular types of training and experiences would increase susceptibility to empathetic responses.

In Part 5 the emphasis will be on a much larger type of audience than those discussed in Part 3 (the artist) and Part 4 (the collector). Works in churches were very accessible to Rome's population and its visitors. These groups constituted a great variety of people. A diverse combination of family allegiances, birthplaces, political factions, status, professions (or lack of), confraternity loyalties, religious orders and social arenas would impact on how a person saw themselves in the setting of the city and thereby also what sort of viewer reaction that person might have. Additionally, in the Anno Santo of 1600, three quarters of the population of Rome over the year would have been visitors without permanent residence in the city. Many of these were pilgrims but there were many other groups. Immigrants came from all over Europe. In this group was a large population of returning soldiers, beggars and prostitutes drawn by the charities of the confraternities and the possibilities of work.⁵⁴³ What the different inhabitants of Rome had in common are a few quite specific circumstances. They inhabited the same changing city, to varying degrees they were dependent on the papacy and the papal court and they would get used to dealing with a vast variety of people.

⁵⁴³ Spear, 'Scrambling for *Scudi*', 310-19, Blastenbrei, 'Violence, Arms and Criminal Justice' 68-87 and Langdon, *Caravaggio*, 44-6.

5.2: NEUROSCIENCE AND THE HISTORICAL CONTEXT

5.2.1: Nature, culture and art

There is a perceived division between nature and culture, as exemplified by the approaches of Freedberg and Jones. The division is perpetuated within the humanities as well as within the new disciplines focusing on art and the brain. In Freedberg's and Jones' approaches, human perception and experience are simplified into categories of universal biology or historical/cultural relativity. An approach based on the contextual brain needs to take both these categories into consideration. If the divided categories 'nature', 'nurture' and 'culture' are understood through a neuroscientific perspective it is possible to show how training in empathy, as through the Jesuit Spiritual Exercises, could lead to increase in mirror neuron activity and thus in an empathetic engagement that is understood not simply as an intellectual response, but an emotional one.

It is not strange that the terms 'nature' and 'culture' persist as opposites. The humanities and the sciences still simplify matters of human experience in these terms. A revealing example is Ramachandran and Hirstein's position on the matter in the introduction to their article in the *Journal of Consciousness Studies*. They state that 'cultural factors undoubtedly influence what kind of art a person enjoys' and further that there might be 'some sort of universal rule' or 'deep structure' underlying all artistic experience'. They then go on to introduce eight such rules in the form of pan-human aesthetic preferences and their evolutionary advantages. For them the 'underlying structure' in neuroaesthetics is provided by the human brain and its functions. Thus, their statement reveals something about the general preconceptions regarding nature and culture. They suggest that biology is something that pertains to universality and that culture is everything that represents the differences between different people and individuals. The statement also suggests that the central issue is to what extent something is influenced by biological or cultural factors. This also allows them to simplify their argument and makes it more easily defensible as they admit to only being interested in 'universal' preferences. Among the comments on Ramachandran and Hirstein's article 'The science of Art'⁵⁴⁴ was a response from Partha Mitter who criticised the authors' focus on biology as opposed to culture. Mitter closes his critique with the following paragraph:

⁵⁴⁴ Ramachandran and Hirstein, 'Science of Art', 15-51.

‘In short, our response to art or aesthetics may have some biological elements but it is culture that provides the unique qualities of an artistic tradition. Similarly our own artistic responses are conditioned by the culture in which we are brought up, though these can undergo changes later on. Therefore, if the authors are to convince us of their theory, they would need to do cross-cultural experiments to prove the universality of artistic response. At present the data is too limited and culturally biased.’⁵⁴⁵

The first sentence does allow that each category has influence on the viewer’s response; however, it also presupposes that they are distinct entities which are connected but not integrated. The second sentence extends this to include the human response to art, stating that the response can change as a result of cultural input. The third sentence points toward the problem of using this type of research within art history. The authors’ biologically based theory cannot explain the specifics of different types of art production and response as it is focused only on universal attributes. Mitter then suggests that cross-cultural experiments might be able to prove their point, but quickly adds that ‘the data is too limited and culturally biased’.⁵⁴⁶ The idea that science is culturally biased is not an uncommon criticism and it is an obvious one. Research in the sciences and the humanities suffer from the same problem and, while it is an important issue to be aware of, it should not stifle academic work. Both the sciences and the humanities have become more transparent in addressing this issue.⁵⁴⁷

Mitter is surprisingly lenient on the issue of universality. To prove universality we would need to have access to every human being on the planet. However, the term is more frequently used to refer to an overwhelming majority. As the authors use the term ‘universality’ and as it is most regularly used by others, it assumes a quality or norm validated by a large enough sample and with margins for exceptions. It also implies that the factor under review is global and that it is the norm in all societies around the world, as in the statement that ‘people globally have the notion that fire is hot’. Further it can

⁵⁴⁵ Partha Mitter, ‘A Short Commentary on ‘The Science of Art’’, *Journal of Consciousness Studies*, 6/6-7, (1999), 64-5.

⁵⁴⁶ Mitter, ‘Commentary’, 64-5.

⁵⁴⁷ Leaving this hurdle, which is problematic for academia at large, as it would require more time and space in this thesis than called for in the context, it is important to state that this thesis does not pretend to use science as an ultimate database of secure knowledge and facts that are built on unquestionable principles and without faults. Instead this thesis approaches the sciences with the same suspicion generally reserved for the humanities, and the methodological, theoretical and analytical biases are taken into account when dealing with the material.

suggest innateness, as in the statement ‘humans have ten fingers’. There is of course the possibility that there are humans out there, particularly newborns who do not have a notion that fire is hot and there are certainly people who do not have ten fingers, which makes the term ‘universality’ misleading. A further point is that the vast majority of scientific research on humans is done in the Western world, making the sample biased to begin with. This needs to be taken into consideration within the sciences. However, if a feature is common across species (for example, human beings, chimpanzees and rats) the assumption that the vast majority of humans also have this feature is not far-fetched. Individual differences must be taken into account. Different biological makeup and environmental impact introduce differences from human to human. For example, while the vast majority of humans have two legs, there is also a significant number who do not, be it because of an individual’s genetic material, environmental input or an accident.

The nature/nurture debate has real consequences for several areas of everyday life. The foundation of the debate is still very much the domain of psychology, as this is where most of the research is done. The influence of heredity on intelligence and gender still occupy a large area of research. The third most discussed topic is child-rearing and what actually makes a human personality.⁵⁴⁸ Another issue in the debate is the heredity of emotional states. There is a wealth of material dealing with the genetic predispositions towards personality traits, for example anger, worry and thrill-seeking. Susceptibility to addiction can also be included in the study of emotion, as it has several emotional components.⁵⁴⁹ There are also various studies on the impact of this debate for how we think about the human brain (or mind or both). These tend to discuss the role of environment and nature in concept-formation; raising the question as to whether there are underlying, innate concepts that structure acquired ones and also the extent to which something is natural or nurtured, innate or acquired.⁵⁵⁰

There are also debates about where a belief in the dominance of nature or nurture may lead in society. The issue has an impact on how individuals regard their heritage and to what extent they might have the capacity to change certain behaviours;

⁵⁴⁸ Stephen Ceci and Wendy Williams (eds.), *The Nature Nurture Debate, The Essential Readings*, (Oxford: Blackwell Publishers, 1999), 1-9.

⁵⁴⁹ Dean Hamer and Peter Copeland, *Living with our Genes: Why they Matter more than you Think*, (London: Macmillan, 1999) is a short easily read primer on the impact of DNA on personality.

⁵⁵⁰ Joan Stiles, *The Fundamentals of Brain Development, Integrating Nature and Nurture*, Cambridge, Mass.: Harvard University Press, (2008), 1-29. Also see Richard Samuels, ‘Innateness in cognitive science’, *Trends in Cognitive Sciences*, 8/3, (2004), 136-41.

however, the debate can influence systems at every level of society. For example, it has consequences for the legal system; whether or not people have a hereditary predisposition to violence can have an impact on sentencing.⁵⁵¹ It is also a particularly important issue for in-vitro fertilisation and whether or not certain negative predispositions can and should be selected out. The issue of eugenics and various race and gender discriminations encountered in the twentieth century offers more than a caution to those working in the field of genetics today.

There are different factions within the research. There are ‘nativist’ arguments that focus on evidence that infants exhibit understanding of concepts without learning. At the opposite end of the spectrum there are proponents of nurture, often bracketed as ‘empiricists’, who argue that infant learning comes from engagement with the environment and do not see the necessity for innate concepts. There are also ‘constructivists’ who focus on the gradual acquisition of concepts on the basis of partial concepts. These entertain the possibility of learning mechanisms which enable concept-formation resulting from basic connections to the different senses. Currently there is interest in explaining the relation and interaction between the environment, experience and biological factors, rather than focusing on the extent of one or the other influence.⁵⁵²

The field of inquiry is varied, data is accumulated by researchers coming from different disciplines for different purposes and the research is marred by the malleability of the evidence. However, there are a few indicators that suggest that a rethink of nature/nurture as a dichotomy is long overdue. First, both nature and nurture range from the near universal to the particular. The basic structure of the human cortex, for example, is not only consistent across the human species, it is also very similar to the cortices of most other mammals. On the other hand any human brain will never be identical to another human brain at birth, as each individual has a particular genetic makeup, a particular set of innate components. Humans additionally have some experiences in common with most other humans. Humans have a disembodied viewing experience, for example, we are able to see our own body but not our head. Most humans have the experience of breathing, sleeping, eating and having relations with other humans. However, no human has ever had an identical experience as another. Not

⁵⁵¹ David Moore, *The Dependent Gene, The Fallacy of ‘Nature vs. Nurture’*, (New York: Times Books, 2001), 3-15.

⁵⁵² Stiles, *Brain Development*, 1-29.

even identical twins growing up in exactly the same environment have exactly the same experiences.⁵⁵³ The deductions drawn first by Ramachandran and then Mitter (and to some extent Freedberg and Jones), are thus severely simplified.

After some major breakthroughs in the past twenty years scientists now have a clearer idea of how biological, specifically genetic, environmental and experiential factors interact and impact on how the behaviour, perception and even the personality of each individual human being develops.⁵⁵⁴ One of the major discoveries is neural plasticity. As discussed on pp. 51-3, neural plasticity is how the brain develops as a result of experience, training and learning. It has an impact on human perception and crucially for the current study, mirror neuron activity. As such, it is one of the most important underpinnings of neuroarthistory.

5.2.2: Neural plasticity, visual preferences and viewer engagement

It will be useful here to review the type of research on neural plasticity has been used by art historians and to consider how it can be applied in the study of human visual perception. John Onians uses a variety of research on neural plasticity in the visual cortex to examine preferences for visual cues in different environmental contexts.⁵⁵⁵ The seminal paper by Hubel and Wiesel⁵⁵⁶ in 1963 showed that very early on in their visual development, kittens have particular cells that respond to lines of particular orientation. This research was developed by Hirsch and Spinelli⁵⁵⁷ who demonstrated that when the kittens were visually deprived and only shown vertical and horizontal lines, the neurons would only respond well to these particular orientations, as this area of the brain developed. In contrast, cats that are reared without visual deprivation have the full scale of orientations represented by different neurons. This shows that what an animal or a human looks at (particularly at the early stages of development) can have a drastic effect on the structure of the visual cortex.

⁵⁵³ Ceci and Williams, *Nature Nurture Debate*, 1-9.

⁵⁵⁴ Ceci and Williams, *Nature Nurture Debate*, 5-8.

⁵⁵⁵ In this section I present particularly research used by John Onians in his research on historically and spatially specific developments in the visual arts. Onians, 'Architecture and Painting: the Biological Connection', 1-14.

⁵⁵⁶ David Hubel and Torsten Wiesel, 'Receptive Fields of Cells in Striate Cortex of Very Young Visually Inexperienced Kittens', *Journal of Neuropsychology*, 26, (1963), 994-1002.

⁵⁵⁷ Helmut Hirsch and D. N. Spinelli, (full name not available), 'Modification of the Distribution of Receptive Field Orientation in Cats by Selective Visual Exposure During Development', *Experimental Brain Research*, 13, (1971), 509-27.

In his work on object recognition Tanaka has shown that the same happens in adult monkeys who are trained in responding to specific shapes. In both trained and untrained monkeys, the neurons responded to the seen shapes, but the response was over six times stronger in the trained monkeys.⁵⁵⁸ Equally we know in the case of human beings that what is seen on a daily basis effects perception. One prominent example is the Müller-Lyer illusion. Segall, Campbell and Herskovitz showed in the mid-1960s that the Müller-Lyer illusion was effective on people growing up and living in a ‘carpented world’, who automatically associated the acute and obtuse angles at the end of the Müller-Lyer arrows with the nearer or further parts of rectangular buildings, rooms, and furniture.⁵⁵⁹

Onians uses all this information in order to show how particular features in art develop as a result of environmental input. He argues, for example, that Brunelleschi’s discovery of linear perspective has its basis in a constant exposure to receding orthogonals. The city of Florence provided this environment with its rectangular layout and straight streets which drew attention to the receding lines of the coursed masonry. Coursed masonry became paramount after the reintroduction of it at Palazzo Vecchio and the Bargello and was used not only in Florence but also in smaller towns connected to the city. The exposure to this specific feature impacted on Brunelleschi’s neural networks (in the same way that the ‘carpented world’ impacts on the people living in it). Significantly, when he demonstrated his discovery, he did so using a representation of the Palazzo Vecchio (and the Baptistry). A similar effect can be seen in the painting of Masaccio and Piero della Francesca, two of the artists who adopted perspective most enthusiastically. The first was born in S. Giovanni in Valdarno and the second in Borgo S. Sepolchro, two towns in which rectangularity was particularly prominent. Onians shows how neural plasticity can be used as evidence to demonstrate how one pervasive, visual feature in the environment can lead to a particular neural network configuration and the inclusion of that feature in artistic practice.

⁵⁵⁸ Keiji Tanaka, ‘Neuronal Mechanisms of Object Recognition’, *Science*, 262, (1993), 685-8 and ‘Mechanisms of Visual Object Recognition: Monkey and Human Studies’, *Current Opinion in Neurobiology*, 7, (1997), 523-9.

⁵⁵⁹ Segall, Campbell, and Herskovits, *The Influence of Culture on Visual Perception*, 209-14.

5.2.3: The Spiritual Exercises and neural plasticity

Neural plasticity has an effect on mirror neuron systems and also the capacity to empathise. While Jones cannot discuss the connection between spiritual exercises and viewing images, a neuroarthistorical approach may be able to clarify the connection. The spiritual exercises provide training in empathy. Since the mirror neurons are susceptible to training it is highly likely that people in early modern Rome had developed particular networks to deal with their practices as well as to looking at the religious paintings in churches. Caravaggio's emphasis on movement would have played on this empathetic ability.

In recent years the categories 'emotion' and 'imitation' have been linked in studies of religious art in particular. The exhibition 'The Sacred Made Real' at the National Gallery in 2009 noted how Spanish painters (who were also influenced by Caravaggio's works) drew from realistic polychrome sculpture in their attempts to engage of the viewer. These were used as prompts to religious sentiment, something which was realised through emotional engagement. The realism of the sculptures was to move the viewer to devotion for the religious personages and was often based on pain and emotion, such as gory blood from gaping wounds and glistening tears. In the pursuit of this realism the artists use glass eyes and even real human hair for the eyelashes.⁵⁶⁰.

'Imitation' is linked both to issues of representation and the behaviour of the viewer. In spiritual biographies of holy women, so-called *Vidas*, there was usually a portrait image accompanying the text. In these images women were often represented in imitation of an earlier saint. For example Sor Francisca Dorothea's portrait showed her in the semblance of Saint Catherine of Siena, while another; Sor Isabel de San Francisco was depicted as Saint Teresa of Avila. The images suggest that imitation could be used as a religious tool. The viewer is to imitate the holy woman and so live a virtuous life. The holy woman is depicted in her role as imitating the earlier saints who in turn became saints through the imitation of Christ. The power of imitation is thus enforced through the imagery.⁵⁶¹ This emphasis on imitation is also clear in spiritual exercises.

Jones is not the first to connect Caravaggio's paintings to the spiritual exercises. Caravaggio's paintings have often been connected with private devotional practices. Chorpenning has provided the most measured account, in which he summarises how

⁵⁶⁰ Alfonso Rodrigues G. de Ceballos, 'The Art of Devotion', in Xavier Bray (ed.), *The Sacred Made Real*, (London, The National gallery, 2009).

⁵⁶¹ Mindy Nancarrow, 'The 17th-Century "Vida": Producing Sanctity with Words and Images', *Woman's Art Journal*, 25/1, 2004, 32-8.

various authors have dealt with Caravaggio and his personal devotion.⁵⁶² The spiritual exercises are meditational practices in which the practitioner uses the imagination to make the Christian mysteries tangible and real. This is done by focusing on the actual space where a religious narrative takes place and by using all the senses to engage with and become part of a spiritual narrative. This practice was most notably developed by St Ignatius of Loyola in the *Spiritual Practices* proper.⁵⁶³ However, as Chorpenning has observed, the actual practice has its roots in medieval traditions and was commonplace in Rome. The writings of St. Ignatius were a particularly successful example of a wider tradition. Two versions of St Ignatius's Spiritual Exercises were approved by the pope, Paul III, in 1548, while the most common version used today was compiled in 1593 and widely disseminated in Rome in 1615. Similar practices were also encouraged in other treatises, both in Latin and Italian, an example being the *Spiritual Combat* by the Theatine Lorenzo Scupoli (1530-1610), which was published in over thirty Italian editions between 1589 and 1610.⁵⁶⁴ All of the orders which commissioned works from Caravaggio, the Augustinians, Oratorians, Capuchins, Dominicans and Carmelites, not only practiced some form of the exercises but disseminated them to the public through preaching. Thus, the practice of placing oneself in the narrative of a saint's, the Virgin's or even Christ's life was popularised. Chorpenning argues further that Caravaggio's paintings serve as pictorial equivalents to the exercises, as they also bring religious narratives into the viewer space, making the action come alive in front of the spectator. Caravaggio's naturalism is related to this, involving the depiction of scriptural figures in modern dress, the portrayal of actual people, and the dramatic convention of showing the characters in the paintings spilling out into the space of the viewer. For example, in the *Madonna di Loreto* he breaks down the boundary between the depicted action and the spectator by introducing two contemporary pilgrims into the presence of the Virgin and Child.⁵⁶⁵

It is significant that St Ignatius promoted images as a visual aid in meditation. He commissioned the Jesuit Jerome Nadal to make a series of engravings for distribution to novices as an aid to meditation (fig. 116). Ignatius also personally used imagery to meditate on the Life of Christ and again this is not a solitary example. Teresa

⁵⁶² Chorpenning, 'Caravaggio and Religion', 149-58.

⁵⁶³ Ignatius of Loyola, *The Spiritual Exercises*, for example 66-68.

⁵⁶⁴ Lorenzo Scupoli, *The Spiritual Combat*, trans. William Lester and Robert Mohan, (Rockford, Illinois: Tan Books and Publishers, 1945).

⁵⁶⁵ Chorpenning, 'Caravaggio and Religion', 149-58.

of Avila (1515-1582) also famously relied on imagery in prayer and commissioned images of Christ, the Virgin, and her favourite saints, which aided her in worship and strengthened the emotional content of her faith. It is recorded that her famous ecstasies regularly occurred in front of divine images. She particularly found the Protestant objections to imagery to be at fault, believing that an absence of images would impoverish the faith.⁵⁶⁶ More closely related to Caravaggio's religious works is Filippo Neri, who expressed the wish that all altarpieces in the Chiesa Nuova, where Caravaggio worked after the saint's death, should be used in meditational practices.⁵⁶⁷ It is further consistent with statements in contemporary guides for the good Christian, such as that by Francis de Sales (1567-1622). He even describes the writing of his guide in terms of painting. He describes how Appelles was commissioned to make a portrait of the beautiful Campaspe and how through looking at her intently and impressing her features on a tablet he simultaneously 'impressed his love for them on his own heart'.⁵⁶⁸ He then continues by stating that 'it is my belief that it is God's will that I, a bishop, should paint on men's hearts not only the ordinary virtues but also God's dearest and most beloved devotion',⁵⁶⁹ and further that 'by engraving devotion on the minds of others my own mind will be filled with a holy love for it'.⁵⁷⁰ His words should work like a painting on the reader and further, the writer or painter has the devotion impressed on them through the act of writing or painting.

In this guide it was stipulated that the imagination was to be trained at least three times a day on different scenes. These were to be imagined as taking place in the here-and-now and the imagination was enjoined to call up the setting as the painter does on a canvas. This method formed a part of the meditational practices of the rosary which was an integral part of faith both in private and in church.⁵⁷¹

The personal focus of the spiritual exercises accords with the official line of the Church after the Council of Trent, which, as McNally has argued, often concerned itself with the individual member of the Roman Catholic Church.⁵⁷² The exercises were a

⁵⁶⁶ St Teresa of Avila, *The Life of Saint Teresa Of Avila by Herself*, trans. John Michael Cohen, (Harmondsworth: Penguin, 1957), 68.

⁵⁶⁷ Chorpenning, 'Caravaggio and Religion', 149-58.

⁵⁶⁸ Francis de Sales, *Introduction to the Devout Life*, trans. John Kenneth Ryan, (New York: Harper & Row, 1966), 31.

⁵⁶⁹ Francis de Sales, *Devout Life*, 31

⁵⁷⁰ Francis de Sales, *Devout Life*, 31

⁵⁷¹ Chorpenning, 'Caravaggio and Religion', 149-58.

⁵⁷² Robert McNally, 'The Council of Trent, the Spiritual Exercises and the Catholic Reform', *Church History*, 34/1, (1965), 36-49.

useful tool for the increasingly expanding Jesuit order, and played a major role in its endeavour to convert varied peoples across the globe. The exercises were widespread; Carlo Borromeo and Filippo Neri were only the most famous and influential of the churchmen who used them.

The basic structure of St Ignatius' exercises is fairly simple. The exercises are divided into four weeks and the practitioner is required to engage in some exercises every day. Ignatius suggests that if possible they should be adjusted to suit the user, adapted to the capacity of the individual. This flexibility brought the exercises within the reach of all age-groups and classes and Ignatius was keen that the exercises should reach the illiterate.⁵⁷³ The exercises begin with the exerciser imagining a particular setting for the meditation, such as hell, the place of the Nativity or the Crucifixion, so that before even beginning to think of characters in a narrative the 'length, breadth and depth of hell'⁵⁷⁴ is seen 'with the eyes of the imagination'.⁵⁷⁵ The second task is for the subject to ask for the appropriate emotion or physical state. These tasks can be compared to the types of statements made by the art theorists, Alberti, Leonardo and Lomazzo. In the case of hell, the exerciser is to 'ask for an interior sense of the pain which the lost suffer'⁵⁷⁶ or in the case of the Resurrection the participant is to ask for 'joy with Christ in His joy'.⁵⁷⁷ The senses are then activated one by one to aid the exercise and make it more real for the participant. In imagining hell, the exerciser is to see the fires and souls burning, to hear the screams and groans of those in the flames, to smell the smoke, the brimstone and the corruption, to taste the bitterness of tears and sadness and finally to feel the touch of the fire. The entire process is thus both very sensual and emotive. The exerciser is further encouraged to revisit his exercises in his daily routine. For example, in week three the participant is required to imagine the Last Supper (among other scenes). He is to rethink the scene as he takes his own food: 'let him do so as if he saw Christ our Lord eating with his disciples, and consider how he drinks, and looks, and speaks; and let him endeavour to imitate Him'.⁵⁷⁸

⁵⁷³ 'These spiritual exercises ought to be adapted to the disposition of those who wish to make them, that is to say, according to their age, education, or capacity, lest to one illiterate or of weak constitution there be given things which he cannot bear without inconvenience, and by which he cannot profit.' Ignatius of Loyola, *The Spiritual Exercises*, 17. See also a version published in Rome 1606, Ignatius of Loyola, *Exercitia Spiritualia*, (Rome: 1606), 16, (Annotation 18).

⁵⁷⁴ Ignatius of Loyola, *The Spiritual Exercises*, 66 and *Exercitia Spiritualia*, 39-40, (fifth meditation).

⁵⁷⁵ Ignatius of Loyola, *The Spiritual Exercises*, 66 and *Exercitia Spiritualia*, 40, (fifth meditation).

⁵⁷⁶ Ignatius of Loyola, *The Spiritual Exercises*, 66 and *Exercitia Spiritualia*, 40, (fifth meditation).

⁵⁷⁷ Ignatius of Loyola, *The Spiritual Exercises*, 54 and *Exercitia Spiritualia*, 33.

⁵⁷⁸ Ignatius of Loyola, *The Spiritual Exercises*, 146 and *Exercitia Spiritualia*, 82 (rules about eating).

The continuous training in empathy involved in these spiritual practices necessarily brought about changes in the practitioner's neural connections. Indeed, as with the musicians and dancers (pp. 65-7), the various neuron systems are very likely to have been involved in this process, especially since the exercises were supposed to engage the practitioner emotionally. As demonstrated on pp. 65-7, mirror neurons show plasticity and the repeated practice of mentally placing oneself in someone else's shoes would necessarily have impacted on the ability to empathise.

5.3: ROME AS A VIEWING CONTEXT

5.3.1: Uniting Rome as the Christian capital of the world

While spiritual exercises had been important in religious orders before 1548, when they were approved by the papacy, there was a new emphasis on reinvigorated piety around 1600 and the following sections will discuss the various ways in which Rome as a city would have provided the setting for emotional and empathetic responses from viewers. The invigorated piety included private, public and institutional components. Rome as a city was considered of utmost importance in the changes introduced by the papacy.

‘And has not this very city, which has been brought about by the dwelling together of so many diverse nations, finally attained that condition of harmonious life and of the most praiseworthy morals that the entire city can be seen as nothing other than a community of men joined together through the oath of benevolence?’⁵⁷⁹

This quote is from a eulogy delivered at the entombment of Paul V in S. Maria Maggiore in 1622.⁵⁸⁰ McGinness has shown how the rhetoric in Rome changed as a result of the Counter-Reformation and the example above shows the new found confidence in Rome as the centre of the Catholic faith. The oratory of the early-seventeenth-century papacy communicated a new positive view of Rome, countering Protestant descriptions of the City as a ‘New Babylon’ full of sin, common throughout the sixteenth century. Combating this particularly negative image was of the utmost importance.⁵⁸¹ The eulogy presents a particularly optimistic view of moral (and thus spiritual) life in Rome. It draws the attention of the audience to the fact that Rome was built on immigration, a feature generally associated with disharmony. However, through the morals of the Roman Catholic Church these men of different origins are now described as joined together. This community of men is used as evidence for the success

⁵⁷⁹ Lelio Guidiccioli, ‘L’Oratio’, original: ‘An non ipsa haec Civitas, tot inter se dissitarum nationum conflare convictu, ad eum tandem concordis vitae, morumque laudatissimorum statum devenit, ut non nisi hominum benevolentiae iureiurando adstrictorum conventus universa videri posit?’, trans. Frederick McGinness, *Right Thinking and Sacred Oratory in Counter-Reformation Rome*, (Princeton: Princeton University Press, 1995), 176 and for the original 311.

⁵⁸⁰ McGinness, *Right Thinking*, 176.

⁵⁸¹ Angela Groppi, ‘Roman Alms and Poor Relief in the Seventeenth Century’, in Kessel and Schulte (eds.), 180-91.

of a renewed Catholicism. The eulogy also describes how the pope Paul V, as the head of the Church, personally impacted on how well the people of Rome got along, and reminds the listener of his international connections. The importance of uniting different nations under a common Catholic faith had been well understood by Pope Paul V and his household welcomed visitors from all over the world, including ambassadors from Armenia, Abyssinia, Congo, Persia and Japan.⁵⁸²

Guidicciioni, the author of this oration, connects this Christian fervour in Rome with new building projects. Before he moves on to discuss the number of pious and splendid morals of the citizens, he begins by asking ‘whether there were more temples more marvellously constructed and adorned’.⁵⁸³ His emphasis was thus placed on unification of the different peoples of Rome and suggests that one of the ways in which this unification was manifested was through the construction and decoration of churches.

The quotation may exaggerate how successful Rome actually was, but it certainly effectively conveys the aspirations of the papacy at the beginning of the seventeenth century.

5.3.2: The importance of communication

Communication is an important factor in viewer responses to painting. Paintings were required to disseminate the religious narratives accurately. However, it is necessary to refer to more than visual communication to realise the extent to which communication was emphasised in early modern Rome. Burke has argued that communication was crucial in the promotion of Rome and Catholicism (necessarily seen as inseparable entities).⁵⁸⁴ The information dispersion (oral, textual and visual media) in Rome was indeed very efficient. To a large extent this was due to the papacy.

One of the most obvious channels of communication was the postal services and Rome’s services may have been the best in Europe.⁵⁸⁵ Taverns functioned as the bases for the couriers who would get letters from Rome to Vienna in as little as twelve days, to Paris in twenty and to London or Cracow in twenty-five. Much of the global information-flow was attached to the Roman Catholic cause in some way, either relating

⁵⁸² Peter Burke, ‘Rome as the Centre of Information and Communication’, in Pamela Jones and Thomas Worcester (eds.), *From Rome to Eternity, Catholicism and the Arts in Italy, ca. 1550-1650*, (Leiden: Brill, 2002), 253-69.

⁵⁸³ Guidicciioni, ‘L’Oratio’, 176 and for the original 311.

⁵⁸⁴ Burke, ‘Rome as the Centre of Information’, 253-69.

⁵⁸⁵ Jean Delumeau, *Vie Économique et Sociale de Rome*, 37.

directly to it or transmitted and received by the ambassadors or missionaries in various parts of the world. Bishops, bankers and foreign ambassadors were particularly important in the communication to the papacy regarding dioceses, European (and increasingly worldwide) finances, politics, cartography and culture. Papal nuncios also reported back from their residences in other countries. With the influx of information, the papacy became increasingly concerned with the recording and storage of documents, and Paul V even founded a secret archive for his own use. Information also came into Rome via the different religious orders. The Jesuits in particular had an efficient information system, rivalling that of the Pope.⁵⁸⁶

These examples are mainly concerned with the higher levels of society, but there is also evidence about information-dispersal to the masses. It is likely that the information-transfer within Rome was mainly oral, and there is evidence of news reporting within sermons, which would have spread news and devotion quicker and to a wider audience than books. Rhetoric became an integral weapon in the Roman Catholic Reform.⁵⁸⁷ Written information for a wider audience came in many formats. The Pasquino statue, which even in 1600 was a broken reminder of a distant crumbling (pagan) Rome, functioned as a notice-board for the display of often defamatory notes. By the early seventeenth century, printed leaflets, pamphlets, *avvisi*, were offered for sale at this same location in the same spot. It is significant that the most common themes of these newsletters were the threats from Protestants and Turks.⁵⁸⁸

Rome also drew a lot of scholars to work in the libraries, which were among the best-stocked in Europe. The papacy possessed the largest and most important collection of manuscripts and books in the city.⁵⁸⁹ However, educational institutes, most notably the Sapienza and the Collegio Romano, also had important holdings. These libraries were of particular importance for the resources they offered to scholars engaged in the history of the early Church, a major interest of this period. Furthermore, Rome was a centre for printing; the publishing house of Blado and Zanetti spread Church news from the rest of the world, most notably Mexico and Peru, to the rest of Europe. Jesuit letters from places as diverse as Japan, India, the Philippines and Ethiopia were also printed.

⁵⁸⁶ Burke, 'Rome as the Centre of Information', 253-69.

⁵⁸⁷ McGinness, *Right Thinking*, 3-8.

⁵⁸⁸ For Pasquino see Rose Marie San Juan, *Rome A City Out of Print*, (Minneapolis: University of Minnesota Press, 2001), 1-21 and Delmeau, *Vie Économique*, 25-36, Burke, 'Rome as the Centre of Information', 253-69.

⁵⁸⁹ For the Vatican library see Anthony Grafton (ed.), 'The Vatican and its Library', in *Rome Reborn; the Vatican Library and Renaissance Culture*, (New Haven: Yale University Press, 1993), 3-45.

To ensure the spread of Roman Catholic Reform, there was a new emphasis on translating religious texts into foreign languages, including Arabic and Persian.⁵⁹⁰

Finally, the papacy controlled the accuracy and ‘correctness’ of the information transmitted by employing its own nuncios to spread news abroad. The papacy exercised censorship in Rome, imprisoning and even executing ‘novellanti’ (newsmen) for spreading the wrong type of news. Even a note attached to Pasquino, criticising Clement VIII, led to legal prosecution.⁵⁹¹

The emphasis on correctness can also be seen in the history writing of the late sixteenth century. History as a subject matter and a means of confirming the foundations of the Church was increasingly being studied and published in Rome, much of due to the involvement and keen interest of Filippo Neri. Antiquarian discoveries fuelled this interest in history. Early basilicas of Rome were investigated and the catacombs were excavated. The findings were understood as evidence of Early Christianity. This historical evidence was used by the Church to build a history of the papacy and Christianity. Indeed, these antiquarian discoveries were used to legitimise Rome as the Christian Capital, and provided valuable ammunition in combating Protestantism.⁵⁹²

The challenge of Protestantism was often presented in terms of an interpretation of history. A critical history, such as *Ecclesiastica Historia*⁵⁹³ of the Protestant Matthias Flacius Illyricus (1520-1575) saw the Roman Church as increasingly corrupted from its original state.⁵⁹⁴ The papacy was presented as a diabolical institution headed by the antichrist, the Pope. Cesare Baronio, supported by Filippo Neri, responded with his *Annales Ecclesiatici*. Through the *Annales* he argued that the Roman Church had remained the same, and thus was the legitimate Church of Christ founded by St Peter. The annales became the official history of Roman Catholic Christianity as well as a source book for illustrators of religious narratives.⁵⁹⁵

⁵⁹⁰ Burke, ‘Rome as the Centre of Information’, 253-69.

⁵⁹¹ Burke, ‘Rome as the Centre of Information’, 253-69.

⁵⁹² Steven Ostrow, *Art and Spirituality in Counter-Reformation Rome*, (Cambridge: Cambridge University Press, 1996), 244-51.

⁵⁹³ Matthias Flacius Illyricus, *Ecclesiastica Historia*, (Nuremberg: Apud Ioannem Leonardum Langium, 1757-1760).

⁵⁹⁴ Ostrow, *Art and Spirituality*, 244-51.

⁵⁹⁵ Ostrow, *Art and Spirituality*, 244-51.

5.3.3: Commissions and audiences in Rome

While the above evidence relates to textual (and to some extent oral) information-transfer, religious paintings can also be considered as an aspect of this communication strategy. Promotion of Catholicism and Rome's place at the centre of the Christian Church was important not only in the textual and oral rhetoric, but also in the visual aspects of the churches. Art in many of the churches in Rome was accessible to a great variety of people.

In discussing spectators of Roman altarpieces, Pamela Jones focuses on the patrons and main users of specific churches.⁵⁹⁶ In doing so, she breaks from a tradition in which audience response has been examined predominantly on the basis of a few treatises on art, like Bellori's *Trattato*. She notes that the range of people accessing the works in the churches confuses the boundaries between popular and fine art in seventeenth-century churches in Rome. These paintings could be considered popular as they were available to any church visitor, irrespective of class, gender, nationality, education, and age. This made Catholic reformers increasingly see art as a useful tool.⁵⁹⁷

The religious orders were at the centre of spectatorship in churches. These were involved in the commission of paintings, and inevitably their display and use. They were also regular viewers. In some cases they are the predominant group of viewers. S. Stefano Rotondo is one such example. It was an exclusively Jesuit church on the outskirts of the city that provided training for Jesuit novices. The walls are painted with graphic depictions of martyrdoms particularly contrived to prepare the Jesuit monks for martyrdom. The thirty-four scenes were executed in 1581-5 by Niccolò Pomarancio, Matteo da Siena and Antonio Tempesta, specifically for the use of this small group.⁵⁹⁸ In contrast, Caravaggio's commissions in S. Maria del Popolo and the Chiesa Nuova (both located in churches in the densely inhabited centre of Rome) were easily accessible and open to all types of audiences.

Wealthy patrons, both male and female, were integral to church commissions as they supplied the often large monetary investment, employed artists and had input on

⁵⁹⁶ Jones, *Altarpieces*.

⁵⁹⁷ See Jones, *Altarpieces*, 1 and Paleotti, *Discorso* in Paola Barocchi (ed.), 461.

⁵⁹⁸ For S Stefano Rotondo see Richard Krautheimer, *Corpus Basilicarum Christianarum Romae*, iv, (Città del Vaticano: Pontificio Istituto di Archeologia Cristiana, 1970), 199-239 and Anna Menichella, et al., 'Rome', *Grove Art Online* (Oxford Art Online, Oxford University Press, 2007-9), University of East Anglia, 04.01.2009, <<http://www.oxfordartonline.com/subrciber/article/grove/art/T073229pg27>>.

the artistic choices. The Gesù, which was the principal church of the Jesuits, was financed by Alessandro Farnese (1520-1589), who was responsible for many of the major decisions, including the choice of architect and painters. In this he set a precedent and many commissions around 1600 were made as statements about family and status as much as piety. Pier Donato Cesi (1522-1586) decided to pay for the decoration of the Chiesa Nuova, with the implicit understanding that references to his family would be incorporated throughout the decorative scheme, just as the Farnese had been in the Gesù.⁵⁹⁹ These expressions of status were often competitive and when Scipione Borghese paid for the ceiling in S. Crisogono it was to rival the ceiling Pietro Aldobrandini built for S. Maria in Trastevere nearby.⁶⁰⁰ Female patrons were also common in Rome. Camilla Peretti's patronage was acknowledged as a mark of her piety. She helped a group of Cistercian nuns take possession of the dilapidated S. Susanna and proceeded to build a chapel to S. Lorenzo.⁶⁰¹

Most viewers are more difficult to trace. In the case of the Chiesa Nuova the decision to build a new church was taken by Filippo Neri, who had the old church demolished before he had actually secured funding for a replacement building. Much of the initial money for the build was raised by a faithful public, including people from various levels of society. This also meant that the wider audiences' capabilities in looking had to be taken into account.⁶⁰² Who these viewers actually were is not known in any great detail; however, that common people had access to the church is clear as the Oratorians provided popular sermons every afternoon.⁶⁰³

That all layers of society used the churches is also evident from other sources. The poor constituted a particularly problematic group for authors writing about the churches. S. Maria del Popolo, according to Leonardo Geruso, dubbed Il Letterato (man of letters), who used the church, was full of poor people. While the charities provided by the churches were accorded special emphasis in the Roman Catholic Reform, there were complaints (including one from Il Letterato) that the poor disturbed the services.⁶⁰⁴

⁵⁹⁹ Haskell, *Patrons and Painters*, 63-93.

⁶⁰⁰ Michael Hill, 'The Patronage of a Disenfranchised Nephew, Cardinal Scipione Borghese and the Restoration of San Crisogono in Rome, 1616-1628', *Journal of the Society of Architectural Historians*, 60/4, 2001, 432-49.

⁶⁰¹ Carolyn Valone, 'Women on the Quirinal Hill: Patronage in Rome 1560-1630', *The Art Bulletin*, 76/1, 1994, 129-46.

⁶⁰² Haskell, *Patrons and Painters*, 63-93.

⁶⁰³ Carolyn, Valone, 'The Pentecost: Image and Experience in Late Sixteenth-Century Rome', *The Sixteenth century Journal*, 24/4, 1993, 801-28.

⁶⁰⁴ Jones, *Altarpieces*, 75-136.

The charities also meant that churches actively endorsed participation of the lower strata of society, and for example attempted to reform prostitutes to lead religious lives.⁶⁰⁵

Children were also a part of the religious life in Rome. The tourist Gregory Martin discusses orphans, who were taken in by the church and there turned into respectable citizens. The boys were educated and put to work, while the girls were married off or trained as nuns. Martin mentions the boys in particular as active in the religious processions. They were dressed in white and carried crosses while singing litanies.⁶⁰⁶

Beyond the clamorous Roman inhabitants, there were throngs of visitors, primarily from Europe but also the rest of the world. Some European visitors have left extensive records of their journeys.⁶⁰⁷ The jubilee brought a mass of pilgrims to the city, who, following the prescribed routes laid out in the guidebooks of the time, visited the churches and holy sites in proper sequence to complete their pilgrimage. Even the poorest and least educated of the pilgrims were assisted by guides who could explain the significance of a particular place or help them reach a confessor who spoke their language.⁶⁰⁸ Jones has noted how Caravaggio takes this group into account in fitting two kneeling pilgrims into his *Madonna di Loreto*, dressing them in contemporary costume and showing their feet dirty from the road.⁶⁰⁹ There could hardly have been a better way to promote those viewers' empathy; the pilgrims would have recognised themselves in the characters in the painting and they would particularly have responded to the poses depicted in the narrative, as they were familiar to their own experiences.

While these various different groups are difficult to pinpoint in the historical record, the traces they leave indicate that the spectators of paintings in Roman churches were particularly diverse.

5.3.4: The church as a context

The Roman Catholic Church as an institution had changed dramatically during the sixteenth century, both in answer to the Reformation and from internal reform. Several

⁶⁰⁵ Storey, *Carnal Commerce*, 239, 245-7.

⁶⁰⁶ Gregory Martin, *Roma Sancta*, [1581], ed. George Bruner Parks, (Rome: Edizioni di Storia e Letteratura, 1969), 131.

⁶⁰⁷ See for example Michel de Montaigne's travel journals. In Montaigne's journal the section on Rome is mainly written by a secretary. (The originals from 1580-1 disappeared during the French Revolution and historians have been reliant on publications from the 1770's), for a modern translation see Michel de Montaigne, *The Complete Works*, trans. Donald Frame, (London: Everyman's Library, 2003), 1141-79.

⁶⁰⁸ Higginson, 'Time and Papal Power', 198.

⁶⁰⁹ Jones, *Altarpieces*, 75-136.

new religious orders had considerable influence in Rome, most notably the Jesuits and the Oratorians with their charismatic founding figures of St Ignatius di Loyola and Filippo Neri. The principal instrument of change in the Roman Church in this period is often seen as the Council of Trent, which had a major impact as it transferred much of the decision-making in ecclesiastical matters to the bishops. Men like Paleotti had newfound impetus to get involved in promoting Roman Catholicism. By the end of the century the results could be seen. The Oratorians in particular had made use of various media to renew faith and devotional practice within the Church. Neri, for example, was particularly interested in music and used Giovanni Pierluigi di Palestrina (c. 1525-1594), who at the time was in charge of the papal choir.

Evidence for public devotion in Rome is to be found mainly in the preparations leading up to jubilee years. Religious cohesion over all social levels was particularly promoted and an emphasis was placed on charity and education. In 1630 there were 352 churches in the city, 41 collegiate churches, 103 convents, 9 institutes for religious education and 28 hospitals. These were listed and described in the various guidebooks which now were designed more than ever to promote Rome as the Catholic centre of the world. Religious sites were attributed more importance than pagan monuments, and these were sometimes not even included at all.⁶¹⁰

Churches were not just repositories of paintings; these have to be considered in conjunction with the other things and experiences that churches could offer their varied audiences. The Roman Catholic Reform made an impact on the fabric of the churches as well as on the types of experiences people could have in front of the paintings. One of the first considerations of the Roman Catholic faith was the devotion paid to the saints, and in the context of particular churches, the titular saint was particularly important. The relation between the name-saint and the church was often reiterated in the decoration. More often than not very specific connections between the church and the saint were established, on the basis of tangible material evidence for the saint and his or her existence, and this evidence was often incorporated into the fabric and material culture of the building. This also connects back to the issue of historical accuracy. The church of S. Susanna provides an instance of this phenomenon, built on the spot where the early Christian Roman saint's house was believed to have stood and where she was

⁶¹⁰ Stefano Andretta, 'Religious life in Baroque Rome', in Kessel and Schulte (eds.), *Rome Amsterdam*, 168-74.

martyred for not obeying the pagan emperor Diocletian.⁶¹¹ St Cecilia's body famously was found and then reburied in her titular church in Trastevere, at the site of the bath where she had met her death. The focus on relics and their power is further perpetuated in the imagery. One very good example concerns St Carlo Borromeo who was canonized in 1610. His use of the relics of the Holy Nail to fight the plague of Milan was recorded in an altarpiece by Andrea Commodo (1560-1638), commissioned for the Roman church of S. Carlo ai Catinari. As the church was dedicated to St Carlo Borromeo it contained several images of him venerating the relic of the Nail, including that of Commodo which now serves as the main altarpiece. When the first stone of this church was laid in 1612, a piece of the nail, the rope that he carried around his neck during plague processions and a piece of St Carlo's flesh were used in the ceremony. Another instance is to be found at S. Prassede, Carlo Borromeo's titular church as a cardinal, which contains the Column of the Flagellation, which had been the focus of Borromeo's devotion while in Rome. A chapel was dedicated to Borromeo when he was canonized and a table top from his palace, from which he fed the poor, was incorporated into the structure as a relic of his saintly actions.⁶¹² Saints were made available through churches, either in relics, such as body parts or objects from their lives, or by direct topographical spatial relationship with the saint, as place of burial or site of martyrdom. The newer saints were incorporated into a system of artefacts. Borromeo was represented both through relics relating to his life and in his use of earlier relics.⁶¹³

Another integral aspect of the ecclesiastical context was preaching and it is worthwhile considering the rhetoric used in the churches to promote Catholicism and the centrality of Rome. Preaching well and effectively became a preoccupation in late sixteenth-century Rome, particularly under Pope Gregory XIII (Ugo Boncompagni, 1502-1585, elected in 1572). Rhetoric became a prominent part of the teaching both at the Sapienza and the Jesuit's Collegio Romano. It was also a crucial component in promoting a positive view of Rome and Catholicism. Between 1570 and 1610 there was an influx in preaching material. Practical guidelines to good practice were drawn up, exemplary sermons were published; it was thought that the ancient orators from whom much of the technique or ecclesiastical oratory was taken had been superseded by the modern Roman Catholic preacher. These developments can be construed as a response

⁶¹¹ Jones, *Altarpieces*, 13-9.

⁶¹² Jones, *Altarpieces*, 188-9.

⁶¹³ For the early use of relics see particularly, Peter Brown, *The Cult of the Saints; Its Rise and Function in Late Christianity*, (London: SCM Press, 1981), 86-105.

to poor preaching which was seen as one of the major reasons for people defecting to Protestantism. Just as Cesare Baronio had called for clarity in visual imagery, so there was a demand for brief and simple sermons which would leave an audience in no doubt over the choice between good and evil. The sermons as well as the visual apparatus in the churches were designed to serve the moral reform.⁶¹⁴ The sermons preached in the presence of the Pope (coram papa) were published and disseminated to the preachers across Rome. The most notable occasions for preaching in Roman churches were the full dress sermons that occurred on Sunday afternoons for particular feasts. In this period most of the notable ecclesiastics preached in front of the Pope. The printed versions of these were disseminated to the churches and there adapted for the people of Rome. Sermons in the Roman churches were thus often based on an approved text, already read at the papal court.⁶¹⁵

5.3.5: Public devotion

The relation between papal policy and popular devotional practices is not straightforward and attempts to control what the public were exposed to have already been discussed - the prosecution of newsmen to control their output, and the publication of Baronio's *Rituale Romanum*, to serve as a regulatory guide for priests.

The confraternities of Rome were deeply involved in the rituals taking place across the city. One of the most celebrated instances of this was the Passion of Christ play staged by the confraternity of the Gonfalone in the Colosseum on Good Friday in the early sixteenth century. The spectacle was set against a painted backdrop, and machinery and illumination was used to raise Christ and the Virgin into Heaven.⁶¹⁶ The use of plays did not please everyone as they were difficult to control. In 1539 an audience became so emotionally involved in the Colosseum play that it reacted to the maltreatment of the Christ figure by rushing into the amphitheatre and by stoning the actors playing the Jews and the soldiers of Pilate. Fear of the powerful effects of the drama and the emotional responses of the audience led the pope to close the production

⁶¹⁴ McGinness, *Right Thinking*, 9-61.

⁶¹⁵ McGinness, *Right Thinking*, 29-61

⁶¹⁶ Barbara Wisch, 'The Passion of Christ in the art Theatre and Penitential Rituals of the Roman Confraternity of the Gonfalone' in *Crossing the Boundaries*, Konrad Eisenbichler (ed.), (Western Michigan University, Michigan: Medieval Institute Publications, 1991), 237-262.

down.⁶¹⁷ Indeed, the relation between theatre and the papacy is not straightforward. While theatre was a powerful means of spreading the Roman Catholic faith through stirring the emotions of the public, this power was also considered dangerous. By 1574 the papacy no longer sanctioned the presence of cardinals at theatrical performances and only the Jesuits were allowed to perform them in their colleges. Nonetheless, the rise of theatre in the seventeenth century can be considered to have a basis in the use of theatre as a Roman Catholic pedagogical tool.⁶¹⁸

Regulations were still strict and plays were not to become regular occurrences. However; there was concern that the art might die if it were not practiced to some extent. It is crucial that Jesuit theatre was still popular in 1599 and used to train the novices who could even win prizes for their theatre skills.⁶¹⁹ By the mid 1650s the Gesù provided the setting for spectacular theatre productions with illusionistic sets by the architect Carlo Rainaldi (1611-1691). In the Anno Santo 1650 a theatre set by Rainaldi presented the people with the Eucharist in the midst of clouds in Piazza Navona. Rainaldi was Bernini's colleague and the theatre sets have been related to the theatricality of Bernini's work. Particularly the Cornaro Chapel, where Teresa is presented in ecstasy in front of an audience carved in stone, has been compared to the theatre.⁶²⁰

Beyond the problems concerning potentially unruly audiences, the players might add their own political views, or present the viewer with versions of the religious narratives not approved by the papacy. Even though theatrical performance was not endorsed by the papacy, companies associated with theatrical performances came into Rome for the jubilee of 1600, from Pisa, San Ginesio and Foligno. As the Compagnia della Misericordia entered Rome, they highlighted the City's piety with a parade. They entered at night with torches and children dressed as angels and several carts with scenery from the Passion.⁶²¹ Thus, even though theatrical performances were not a part of the papacy's reform policies, the effects of performance were still cultivated in different forms.

⁶¹⁷ Wisch, 'The Passion', 237-262.

⁶¹⁸ Larry Norman, *The Theatrical Baroque*, (Chicago: The David and Alfred Smart Museum of Art and the University of Chicago, 2001), 2-3.

⁶¹⁹ Louis Oldani, *An Introduction to Jesuit Theatre*, (St Louis: Institute of Jesuit Sources, 1983), 11-8.

⁶²⁰ Per Bjurström, 'Baroque Theatre and the Jesuits', in Rudolf Wittkower and Irma Jaffe (eds.), *Baroque Art: The Jesuit Contribution*, (New York: Fordham University Press, 1972), 99-110.

⁶²¹ Wisch, 'The Passion', 237-262.

The Gonfalone was at this point the oldest and perhaps most famous confraternity in Rome. They had been established between 1264-7 but were still active in 1601 when Camillo Fanucci stated that their oratory was the most beautiful in the city. This praise was incorporated in a treatise describing pious works in Rome. The oratory, with paintings by Federico Zuccaro, Cesare Nebbia, Raffaellino da Reggio and Marco Pina da Siena, had the Passion as the narrative cycle over three walls.⁶²² The performances in the Colosseum may have been forbidden but the history was still spelt out on the walls of the oratory.

Towards the end of the century, Holy Week processions that were held every year included contributions from most of the confraternities in Rome, including the Gonfalone. The imitation of Christ formed a part of the confraternities' penitential programme. Holy Week offered many opportunities for the members to exercise many of the tasks, including feeding and washing the feet of the poor, as well as flagellation in the processions.⁶²³

The use of relics and imagery in this process is well known. The procession ended in St Peter's where the Veronica was shown to all participants, followed by a presentation of other relics of the passion. The Gonfalone had a relic under their care that had particular importance to Clement VIII. This was the icon of the Virgin and Child believed to have been made by St Luke, which was kept in S. Maria Maggiore, as it is today. In 1600 the image was carried in the procession that was held in honour of the opening of the Holy Door.⁶²⁴

Such public performances, both condoned and prohibited, allowed for and encouraged empathetic viewer engagement. While the theatrical performances were limited as a consequence of rowdy crowds engaging excessively, the imitation of Christ provided a yearly opportunity to connect with Christ on a behavioural level.

⁶²² Wisch, 'The Passion', 237-262.

⁶²³ Wisch, 'The Passion', 237-262.

⁶²⁴ Ostrow, *Art and Spirituality*, 120-32. For information on this particular icon see also Gerhard Wolf, 'Icons and Sites. Cult Images of the Virgin in Mediaeval Rome', in Maria Vassilaki (ed.), *Images of the Mother of God; Perceptions of the Theotokos in Byzantium*, (Aldershot: Ashgate, 2005), 23-49 and his *Salus Populi Romani, Die Geschichte Römischer Kultbilder im Mittelalter*, (Weinheim: Acta Humaniora, 1990), 171-95. See also Hans Belting, *Likeness and Presence; A History of the Image before the Era of Art*, (Chicago: University of Chicago Press, 1994), 63-77.

5.4: VIEWER ENGAGEMENT; THE PEOPLE IN ROME – CASE STUDY 3: THE COMMISSIONS IN S. MARIA DEL POPOLO AND THE CHIESA NUOVA

5.4.1: Caravaggio's public commissions

As a painter competing for commissions in Rome it was imperative for Caravaggio to produce large works for churches and for these works to both make an impact on their viewers and conform to the needs of the Roman Catholic Church. His full success as a painter depended on such opportunities and the jubilee offered more possibilities for artists to make a name for themselves. At S. Giovanni in Laterano, for example, Cesari, Cristofano Roncalli, Giovanni Baglione and Orazio Gentileschi were involved in the prestigious redecoration of the basilica. However, this and several other commissions required work in fresco, and Caravaggio did not work in fresco. Even the 'Jove, Neptune and Pluto' which he painted directly onto a plastered ceiling was made in oil colours (fig. 117). His lack of experience in fresco painting may to some extent explain why he did not win public commissions early in his career.

Caravaggio's first public commission was for the paintings in the Contarelli Chapel in S. Luigi dei Francesi. Each measured over three metres in width and in height and according to Spike marked the beginning of a fashion for large-scale oil painting of this kind in Rome. Spike observes that the effects of light and shadow so integral to Caravaggio's new contribution to pictorial style in Rome are more effectively achieved in oil than fresco.⁶²⁵ This commission, comprising the *Calling of St Matthew* and *The Martyrdom of St Matthew* (figs. 1 and 3), executed in 1599-1600, was to finish a job started by Cesari, whose painting in the ceiling is still in position, and who had abandoned the project in favour of other more prestigious commissions.

For Caravaggio it provided a launch pad and in 1600 he started work on a similar theme of conversion and martyrdom for the Cerasi chapel in S. Maria del Popolo, with the *Conversion of Saint Paul* and the *Crucifixion of Saint Peter* (figs. 14 and 15). These two compositions were designed to flank an altarpiece by Annibale Carracci, who at the time was finishing the celebrated ceiling in the Farnese Gallery. Two of the most prominent new artists on the Roman scene were thus competing against one another in the same chapel. The legal document of the commission famously terms Caravaggio 'Egregius in Urbe Pictor' - distinguished painter in the City

⁶²⁵ Spike, *Caravaggio*, 92-4.

(of Rome). Subsequently, when Jacob Cobaert's sculpture of St. Matthew for the Contarelli chapel was criticised and removed in 1602, Caravaggio was presented with the opportunity to compose his first altarpiece to accompany the two existing flanking paintings. His first version of *Saint Matthew and the Angel* (fig. 13) was (see pp. 184-9) rejected and acquired for the Giustiniani collection. A second version was accepted (Fig. 2). In January of the same year he got the commission for an altarpiece for the Pietà Chapel in the Chiesa Nuova, the *Entombment* (fig. 16), which was to prove one of his most celebrated works. The *Madonna di Loreto* (fig. 5) for S. Agostino was completed during 1603-4.

1603 marked a turning point in Caravaggio's career. While the libel trial and the problems he encountered over his first version of *St Matthew and the Angel* had been resolved, his patrons, albeit faithful, did distance themselves from him. After being released from prison, he was forced to find his own rented accommodation. The *Death of the Virgin* (fig. 55), for S. Maria della Scala was commissioned in 1601 but was never installed and was rejected in 1606. Caravaggio was one of the first painters to receive a commission from the confraternity of the papal grooms at the new basilica of St Peter; however, after only two days in position, the *Madonna dei Palafrenieri* (fig. 102) was taken down.⁶²⁶

The reception of Caravaggio's public works is a problematic topic. While modern scholars assume empathetic reactions on behalf of the seventeenth-century viewers, there is very little in the historical records directly relating to the paintings to suggest that this was actually the case.⁶²⁷ The biographers' accounts are critical, sounding almost triumphant about the rejections, moralising about the breaches of decorum. They are also contemptuous of the attention paid to his work; the fuss over the Contarelli pieces and the *Madonna dei Palafrenieri*. Bellori was able to praise a few paintings, including *The Rest on the Flight to Egypt* and *The Cardsharps* (figs. 118 and 51), neither of which were church commissions. He also wrote that many (younger) painters in Rome were taken with the novelty, his new manner of painting, the sharp contrasts he drew between light and shadow, while the older painters attacked him for his shortcomings in *disegno* and *invenzione*. Bellori also mentions Marino's praise of the painter. He revels in Caravaggio's disbelief at the outrage shown at his *St Matthew*

⁶²⁶ For biographical data on Caravaggio's public commissions while in Rome see Spike, *Caravaggio*, 94-182, Langdon, *Caravaggio*, 154-318 and Puglisi, *Caravaggio*, 143-199.

⁶²⁷ Langdon is one very clear example, writing that 'his greatest gift was for empathy', *Caravaggio*, 1.

and Angel. After criticising the composition and movements of the characters in the *Martyrdom of St Matthew*, he wrote that people held the *Entombment* in great esteem, agreeing with the common opinion that this is one of Caravaggio's finest works. He also records Giustiniani's unfaltering support of the artist and mentions that other Roman gentlemen too praised and coveted his work. Bellori is thus even-handed in reference to the praise and the censure which fell on Caravaggio. However, he cannot agree with the new painters, who adapted Caravaggio's style, with the gentlemen who spent money on commissioning works from him or putting him up in their palazzo, or with the general public who held his works in high esteem.⁶²⁸ With so little written evidence on the contemporary reception of Caravaggio's work, there is a need to turn to other sources of information.

Jones' careful consideration of the various different types of viewers that might be found in the viewing public provides a more extensive context – for example, she discusses the priests who would have looked at the painting on a regular basis. However, her inquiry focuses on the intellectual understanding of the painting. In discussing the viewer experience of the Cerasi Chapel paintings and *The Entombment*, I shall try to proceed further by using contextual evidence (admittedly less extensive than that assembled by Jones), visual evidence and neuroscience. The paintings show that Caravaggio was rethinking the movement of the characters. The emphasis on movement suggests that through mirror neuron activity any audience would be engaged by the imagery. A Roman audience, in particular, would be likely to connect and empathise with imagery of this kind. Any person used to engaging in the spiritual exercises would most likely also be particularly prepared to empathise with imagery that was used by the Church as a means of reaching and communicating with a wider audience.

5.4.2: *The Conversion of St Paul* and *The Crucifixion of St Peter*

The Cerasi Chapel is situated just to the left of the sanctuary and high altar in S. Maria del Popolo, positioned at the gate of Via Flaminia, one of the major entries to the city. The majority of pilgrims and visitors travelling by road from northern Italy and Europe would have entered the city through this gate.⁶²⁹ Tiberio Cerasi (died in 1601), the patron, was the Treasurer General for the Pope, a very wealthy man and the most

⁶²⁸ Bellori, *Le Vite*, in Hibbard, *Caravaggio*, 361-74.

⁶²⁹ Langdon, *Caravaggio*, 36.

illustrious employer Caravaggio had worked for to that date. When Cerasi's duties had brought him to Rome, he purchased this prominent chapel from the resident Augustinians and proceeded to decorate it as he saw fit. Choosing to employ two of the up-and-coming stars of the Roman art world must have increased the prestige and expectations of the commission. When he died in 1601, Carracci's *Assumption* (fig. 91) was most likely already completed. Caravaggio was paid 400 scudi and was commissioned first to show sketches for the work to follow.⁶³⁰

The subject matter was traditional. Sts Peter and Paul had a special dignity in Rome, as the two princes of the Apostles, who had taken the teaching of Christ to the Jews and the gentiles, and as the arch-martyrs, whose martyrdoms and continuing presence made Rome a doubly apostolic city.⁶³¹ Saul's own conversion was also a useful exemplar for the Roman Catholic cause of converting Protestants and other infidels. *The Crucifixion of St Peter* (fig. 14) and the *Conversion of St Paul* (fig. 15) together constituted models of perfect Christian behaviour and faith, confirming Rome, the place of martyrdom of the two saints as the centre of the Christian Church.⁶³²

The paintings have their most famous precedent in the Cappella Paolina, the private chapel of Pope Paul III (Alessandro Farnese, 1468-1549, elected in 1534) at the Vatican, where Michelangelo painted exactly these two complementary scenes (figs. 119 and 120).⁶³³ This was Michelangelo's last commission before his death. The two pictures were continuously ignored throughout the late sixteenth and seventeenth centuries as they were considered failures. Michelangelo's reputation was kept intact through this wilful neglect.⁶³⁴ Caravaggio was aware of these images and in his compositions he was competing with Michelangelo as much as with Annibale Carracci.⁶³⁵

In *The Crucifixion of St Peter* the pose of the saint is very similar to that in Michelangelo's fresco. In both versions of the scene, St Peter has slightly raised his upper body from the cross and looks away from it. The main difference in the composition is that Michelangelo has St. Peter and the cross facing the viewer, while

⁶³⁰ Langdon, *Caravaggio*, 179-80.

⁶³¹ Ruth Wilkins Sullivan, 'Saints Peter and Paul: Some Ironic Aspects of their Imaging', *Art History*, 17/1, (1994), 59-80.

⁶³² Langdon, *Caravaggio*, 181-2.

⁶³³ See Leo Steinberg, *Michelangelo's Last Paintings: the Conversion of St. Paul and the Crucifixion of St. Peter in the Cappella Paolina*, (London: Phaidon, 1975).

⁶³⁴ Steinberg, *Michelangelo's Last Paintings*, 17-20.

⁶³⁵ Friedlaender notes the debt Caravaggio has to Michelangelo's work, this being only one example. Friedlaender, *Caravaggio*, 89-94

Caravaggio shows the cross being raised towards the altar and away from the viewer. This allows for St Peter's upper body to be raised towards the viewer, and as a consequence the address to the viewer is less forced than in Michelangelo's fresco. Caravaggio has also limited the amount of characters in the composition to three, while in Michelangelo's version there are several groups of spectators. The man crouching in the foreground of Caravaggio's image pushes the cross upward with his shoulder, whereas the man in a similar position in Michelangelo's version is preparing a hole to receive the foot of the cross, digging with his bare hands while the spade lies next to him. In Caravaggio's version the man grips the spade on the ground and this visually supports the effort with which he heaves the cross upward. The pose of the man is also reversed, so that the first thing that a viewer is confronted with in the image on approaching the chapel is this man's dirty feet and backside. The other two men in Caravaggio's version do not have equivalents in Michelangelo's fresco. One grasps the cross at the level of St Peter's feet. His is the only face of the executioners that is discernable, even though it is mainly steeped in shadow. A third man raises the cross by pulling on a rope tied around its top. His face is hidden by his arm and only his side and back are visible.

All three executioners look like contemporary workmen. Their faces are hidden or partly obscured, making St Peter's the only face on which the viewer can really focus. His expression is one of effort rather than showing a particular emotion and his mouth is half open. His visible hand and his feet are pierced by nails. A noticeably small and faint trickle of blood can be seen on St Peter's right foot. The prominent rock in the foreground reminds the viewer of St Peter's place in the history of Christianity. Christ named him in Aramaic 'Cephas' meaning 'rock' (becoming 'Petros' in Greek and finally 'Peter' in English), saying 'and on this rock I will build my church.⁶³⁶ In this proclamation the Church of Rome saw its justification and the foundations of its faith.⁶³⁷ As a visual component the rock also serves as a point of entry for the viewer as it is at eye-level.

In comparison to the Michelangelo fresco with its groups of spectators, in Caravaggio's composition the figures are pressed towards the viewer who becomes a part of the narrative. All four figures are caught in strenuous movement, be it St Peter raising his chest off the cross or the executioners pushing, pulling and lifting the cross.

⁶³⁶ Matthew, 16:18. *The Holy Bible*.

⁶³⁷ Wilkins Sullivan, 'Saints Peter and Paul', 59-80.

Michelangelo's figures show a variety of poses which neither get in the way of the cross nor obstruct a full view of St Peter. Caravaggio's reversed poses and tight composition cleverly upstages this. The reversion of the cross allows for an emphasis on movement without the characters getting in the way of St Peter, who in raising his upper body from the cross is more easily presented to the viewer. The low position of the cross both accentuates the effort in the raising and allows for St Peter's whole body to be displayed.

In Caravaggio's version of *The Conversion of St Paul* movement is equally important. There is some controversy about how the whole commission actually progressed after the contract. It is not clear whether or not Caravaggio made the sketches which had been stipulated, and Baglione says that the first attempts were rejected and bought by Cardinal Giacomo Sannesio (d. 1621).⁶³⁸ Since the painting of *The Conversion of St Paul*, which is now in the Odescalchi collection (fig.121) and generally accepted as one of these canvases, is very different from that in the Cerasi chapel, it is unclear how reliable this statement is.⁶³⁹

The Odescalchi version is an entirely different depiction of the scene. The main difference lies in the number of people. The composition is crowded, with St Paul on the ground covering his eyes and Christ and an angel appearing in the sky in the top right corner. St Paul's horse is in the background. In front of the animal an older soldier points a spear towards Christ. The diagonal (top right to bottom left) runs along Christ's arm through the spear to St Paul's head. It is likely that this image was intended for the Cerasi chapel as the two canvases are very similar in size (the Odescalchi version only centimetres larger) and the composition mirrors that of the *Crucifixion of St Peter*.

In the second version there is no strong diagonal accent in the composition and the number of characters is reduced. Instead of including Christ and the angel, Caravaggio simply replaces them with a light source in the right-hand corner. The rays are painted with minute dots of white paint. The horse takes a much more dominant role and the soldier of the first version has become a man tending to it in the background. In the Odescalchi version Caravaggio depicted this man as an old soldier with an elaborately feathered helmet, whereas in the Cerasi chapel he is a simple workman. His role in the narrative is to calm the animal which, although passive, raises its hoof and

⁶³⁸ Baglione. *Le Vite*, in Hibbard, *Caravaggio*, 354.

⁶³⁹ Langdon, *Caravaggio*, 179-184.

foams at the mouth. He seems oblivious to St Paul's conversion and the presence of God.

The Cerasi version shows a much calmer conception of the narrative in comparison to both other interpretations, such as Raphael's cartoon (fig. 122) or Zuccaro's treatment in his painting on the same subject (fig. 123), or to Caravaggio's first version of the subject. For example, Raphael's tapestry cartoon shows St Paul with his arms outstretched, palms towards Christ who flies in from above. Additionally there are Roman soldiers on foot and horseback, moving in from the right as well as people fleeing towards the left. The faces of both Paul and the audience of the scene show astonishment. In Taddeo Zuccaro's (1529-1566) *Conversion of St Paul*, Paul is shown in the process of falling off the horse, while the people around him move in different directions. Christ, again appearing from above, is followed by angels on clouds. Caravaggio's imagery is motionless, by comparison.

However, Caravaggio in fact considered the movement in the painting very carefully. Caravaggio's St Paul mirrors Annibale Carracci's Virgin in the *Assumption*, stretching out his arms to embrace the divine light. This stands in contrast to the other versions. Paul covers his face in the Odescalchi version, he holds up his arms almost as a defence in Raphael's cartoon, and stretches them out as a consequence of the fall in Zuccaro's painting. Caravaggio has depicted the moment at which he acknowledges God, rather than his astonishment at being knocked off a horse or his fright at hearing the voice of God.

Spike has observed that Caravaggio's new technique of breaking the picture plane, to allow the figures to enter the space of the viewer, offers 'the viewer an empathy with the painted image'.⁶⁴⁰ He continues 'this is the baroque quality, and it is invented here by Caravaggio'.⁶⁴¹ That this pictorial device makes its first appearance in this particular painting is debatable. The images in the Cerasi Chapel are often seen as a new step in Caravaggio's career at which he introduces shallow sets, deep shadows and monumental characters in religious paintings with serious subject matter.⁶⁴² Spike seems to be saying that these are the first large-scale pieces which force the viewer to confront the figures in the painting as a result of Caravaggio depicting them as imposing, close to the picture plane, without a backdrop of perspective. Spike claims

⁶⁴⁰ Spike, *Caravaggio*, 105.

⁶⁴¹ Spike, *Caravaggio*, 105.

⁶⁴² Puglisi states that the paintings 'break decisively with his youthful manner, signalling his artistic maturity', Puglisi, *Caravaggio*, 165.

that no one had painted ‘such tangible, solid bodies, no doubt because no previous painter had envisioned Bible stories as drama enacted in the first person in real time’.⁶⁴³ There is thus a firm notion that Caravaggio’s imagery is supposed to make the viewer emotionally engaged. It is even seen by Spike as the defining feature of Caravaggio’s contribution. This notion finds a context both in Lomazzo’s and Paleotti’s treatises on art and in the *Spiritual Exercises* of Loyola and the patterns of thought and practice associated with the promotion of Roman Catholicism around 1600.

Langdon, for example, emphasises that the themes of martyrdom and conversion are particularly important in Roman Catholic renewal and that the spiritual exercises are common means for the believers to practice their faith. With the subject matter of Sts Peter and Paul, the paintings function as poignant reminders of the historical foundations of the church in Rome; Sts Peter and Paul were thought to have been martyred in the city on the same day. On a purely intellectual level, these images can be understood to communicate specifically Roman Catholic ideas, fitting for the jubilee year (the paintings were commissioned in 1600 and finished the year after).⁶⁴⁴ Spike on the other hand chooses to focus on the emphasis on movement in the imagery, connecting this with the work of Galileo and the scientific pursuits of Francesco Maria del Monte’s elder brother Guibaldo.⁶⁴⁵ The neuroscientific material ties the emphasis on movement and the religious impetus of the jubilee year together. Implied movement and expression in images directly link the spectator to the painted characters because of the parts of the brain that deal with emotion and ultimately empathetic reactions. This occurs in most human brains; but in a human brain that is trained in empathy through spiritual exercises and furthermore has an expectation that images can help in this process, this type of empathetic experience would be more acutely felt. Caravaggio most likely understood that by focusing on movement and emphasising the bodies in his narratives he would be able to communicate and engage with his audiences more effectively.

⁶⁴³ Spike, *Caravaggio*, 105.

⁶⁴⁴ Langdon, *Caravaggio*, 180-90.

⁶⁴⁵ Spike, *Caravaggio*, 106-9. While the careful consideration of movement can be linked more directly to Lomazzo’s treatise and the art theory around 1600 than to the scientific culture at time it is clear that the emphasis on studying nature coincides with a move to such empiricism in the sciences.

5.4.3: The Entombment

Perhaps the only piece by Caravaggio to win the praise of all of the critics was *The Entombment* (fig. 16) commissioned by the Oratorians in S. Maria in Vallicella, popularly called the Chiesa Nuova, in 1602. This painting was by far Caravaggio's most successful work, with Baglione, Scanelli and Bellori conceding to its success. Baglione states that the painting 'is said to be his best',⁶⁴⁶ while Bellori even comments that Caravaggio's realistic depiction of Christ's body is 'forceful'.⁶⁴⁷ One testament of its success was Rubens' affection for it and his careful copy (fig. 124).⁶⁴⁸

The chapel belonged to the Vittrice family and when Pietro Vittrice died in 1600 it was his nephew, Gerolamo, who commissioned the altarpiece from Caravaggio. Gerolamo also owned another of Caravaggio's paintings, a *Fortune-teller*. The chapel, which is situated between the chapels dedicated to the Crucifixion (with a widely acclaimed altarpiece by Scipione Pulzone, (1544-1598, fig. 125) and the Ascension (with a painting by Girolamo Muziano, fig. 126), was dedicated to the Pietà.

Caravaggio's style worked well with Pulzone's *Crucifixion* next door, which was sharply lit with a dark background. Filippo Neri who had initiated the rebuilding of the church, had been particularly fond of the main altarpiece, the *Visitation*, by Federico Barocci (fig. 127). It was well known that Neri spent hours in contemplation in front of this painting.⁶⁴⁹ This is important as the use of the images in Chiesa Nuova would have been influenced by Neri's actions there. It is very likely that the images throughout the church were used in contemplating the religious narratives. This is also something that Caravaggio could easily have been aware of.

The Oratorians favoured images that were simple and direct, of the type that Baronio, who was a keen follower of Filippo Neri, was promoting. Baronio wrote already in 1564 of a wooden Crucifixion which he himself had commissioned that 'the nearer it draws to nature, the more it arouses devotion'.⁶⁵⁰ The paintings in the Chiesa Nuova conformed to the wishes of the Oratorians even though the commissions were executed for different patrons and by different painters. It is likely that the sequence of

⁶⁴⁶ Baglione, 'e questa dicono, che sia la migliore opera di lui', *Le Vite*, in Hibbard, *Caravaggio*, 354.

⁶⁴⁷ Scanelli, *Il Microcosmo*, in Hibbard, *Caravaggio*, 358 and Bellori, *Le Vite*, in Hibbard, *Caravaggio*, 366.

⁶⁴⁸ Puglisi, *Caravaggio*, 174-7.

⁶⁴⁹ Langdon, *Caravaggio*, 241-5

⁶⁵⁰ Baronio is most likely referring to both the wood of the cross as well as simplicity of the imagery. The phrase is 'per che tanto più è di divozione, quanto più si accosta al naturale'. I use the paraphrasing by Langdon, *Caravaggio*, 242. Originally from a quote from a manuscript in Allessandro Zuccari 'Cultura e predicazione nelle immagini dell'Oratorio', *Storia dell'Arte*, 85, (1995), 340-54 at 342.

works was suggested by an Oratorian scholar and it is possible that Baronio was involved in creating the narrative programme of the church.⁶⁵¹ Caravaggio's realism may thus have appealed to the priests of Chiesa Nuova.

There is some controversy about the subject matter of the image, especially since Bellori defines it as a Deposition. Further, it replaced an image of the Pietà which is the dedication of the chapel.⁶⁵² Representations of the Entombment generally have Christ's body as their focus, as indeed Caravaggio's painting does; however, there is no record of the Virgin being at the event and John who is holding Christ's upper body is more frequently represented at the Deposition. The Pietà, by contrast, has Christ and the Virgin as its focus.

The Entombment is described in the Gospels and a closer look at the figures generally included in the narrative, as described in the Gospels, is useful to show the problems of identification which arise. Matthew (27:55-61) writes that a rich follower of Jesus, Joseph of Arimethea, begged Pilate for the body. He then wrapped it and placed it in his own tomb, with Mary Magdalene and another Mary present at the burial. John (19:38-42) includes details of Nicodemus who anointed the body of Christ with spices. The inclusion of St John is thus an addition without scriptural justification. This may be why Bellori identifies the subject as the Deposition.⁶⁵³

Mary Ann Greave assumes that the tomb would be behind the bearers and thus argues that the action represented does not fit the traditional identification. She argues instead that the stone so prominently jutting out in the foreground is the stone of unction, a venerated relic in Jerusalem, and proposes that that Caravaggio is here depicting the moment before Christ's body is anointed by Nicodemus.⁶⁵⁴ However, the majority of Caravaggio scholars⁶⁵⁵ think that the scene is the Entombment and that Christ is shown being lowered into the spectators' space by John and Nicodemus.

Nicodemus has a firm grasp around Christ's knees and also holds up the white sheet underneath the body. He faces out, but his eyes do not meet those of the spectators. He does not look at Christ but seems almost disconnected from the scene. John, on the other hand, looks at Christ, while touching the wound in his side. Mary

⁶⁵¹ Langdon, *Caravaggio*, 241-5.

⁶⁵² Mary Ann Graeve, 'The Stone of Unction in Caravaggio's Painting for the Chiesa Nuova', *The Art Bulletin*, 40/3, (1958), 223-238.

⁶⁵³ Langdon, *Caravaggio*, 241-5.

⁶⁵⁴ Graeve, 'The Stone of Unction', 223-238.

⁶⁵⁵ See in particular Georgia Wright, 'Caravaggio's Entombment considered in Situ', *Art Bulletin*, 60/1, (1978), 35-42.

Magdalene mourns with a cloth in her hand and her head bowed, while the second Mary throws her arms up in the air. Her gesture recalls the form of the cross. The figures contrast with each other in types of grief; one very overt and the other showing restraint. The Virgin is shown as an old woman with her arms stretched out almost protectively. Her pose is reminiscent of both the Pietà (fig. 128) and the Madonna della Misericordia. Depicting the Virgin as old is consistent with the Bible narrative. She must have been old at the time of Christ's death, a factor which Michelangelo, for example, ignores in his early sculpture of the Pietà. In the Caravaggio, the characters are all depicted as poor and suffering. In any other setting Nicodemus could be taken for a weather-beaten Roman workman. Realism is an important issue in this painting in terms of both style and content.

The arch at the entrance of the apsidal chapel has stucco work depicting the shroud of Turin, the relic believed to be the shroud in which Christ was wrapped for burial, bearing the imprint of his crucified body. When Marino later wrote of the Shroud of Turin and painting, he made a comparison between God and the naturalistic painter. God moves the emotions of the spectator with an image on the shroud which surpasses even the grapes of Zeuxis.⁶⁵⁶ This shroud is the white sheet underneath Christ's body in the picture. Realism is thus present in the discourse about God the creator, here the creator of the realistic marks on the Turin cloth, a miraculous image with superior power of engaging the spectator. The emotional effect of realism was thus based in religious as well as art theoretical discourse. It was also an issue for the Oratorians who wanted their imagery to be realistic in terms of historical accuracy. The characterisation of the Virgin as an old woman could be significant in this context.

To understand the impact of this painting, it is necessary to consider the effects of Caravaggio's depiction of movement. The hand and head movements of the figures in the scene enforce the movement of Christ's body down into the viewer space. Mary's arms and face point upward. She is followed by the Virgin and Mary Magdalene, who both face down. They are contrasted in terms of age and dress. Mary Magdalene is young and beautiful and her bare shoulder is emphasised by the light. The Virgin is old and dressed like a nun. Her arms stretch across the picture, one catching the light just above Christ's head and the other appearing behind Mary Magdalene. Nicodemus and John are both bent over and finally Christ's hand is shown slipping over the edge of the

⁶⁵⁶ Langdon, *Caravaggio*, 241-5.

stone slab. The light emphasises Christ's body and particularly the white sheet underneath his body (which will become the miraculous cloth of Turin), the lightest part of the painting. Nicodemus's forehead, the Magdalene's hand and shoulder and to a lesser extent the other Mary's face and hand are also lit. The diagonal composition, which again emphasises the movement, is tempered by the Virgin's outstretched arms, by the body of Christ and by the rock which juts out into the space of the viewer. The shadows on Christ's body render it sculptural, a device that Caravaggio also used in the Cerasi Chapel to emphasise the figures. Caravaggio created his composition with a range of sources in mind. In particular, Peterzano's version of the subject seems important with its dark setting and arrangement of the figures. The Virgin, in particular, is reminiscent of Peterzano's work. He also seems again to be competing with Michelangelo and his Pietà, turning the Virgin into an older woman and making her outstretched arms a gesture of blessing rather than of presentation. He has also rethought the body of Christ, which is more substantial and heavier, to the advantage of the composition.

The significance of lowering the body into the viewer-space would most likely have been understood best at the celebration of mass in the chapel, when the Eucharist would have been celebrated by the priest below the altarpiece. The action of the celebrant holding up the bread and saying the words 'this is my body', with the body of Christ in the painting being lowered from above, would have underlined the actuality of Christ's sacrifice for the spectator.⁶⁵⁷ Hibbard even suggests that the painting was a visual counterpart to the ritual. What becomes important above and beyond the narrative is the depiction of Corpus Domini (the body of Christ).⁶⁵⁸ More than many of Caravaggio's pictures, this seems accessible to a wide audience because of the incorporation of the image in the setting of the church. Through referring to the ritual and the space, Caravaggio is emphasising how the picture could be engaged with. Indeed, the circumstances surrounding the image make it very easily accessible to a viewer trained in spiritual exercises.

This argument has been elaborated by Georgia Wright who has noticed that the action of the painting is completed by the priest at mass, as the host is held up to the congregation. She also notes the continuation of the narrative in the church, drawing attention to the similarities between Caravaggio's depiction of St John and the figure of

⁶⁵⁷ Puglisi, *Caravaggio*, 174-7.

⁶⁵⁸ Hibbard, *Caravaggio*, 171-9.

John in Pulzone's altarpiece in the neighbouring chapel. The facial type is similar and Caravaggio has borrowed the red cloak from Pulzone's St John. The continuity of the narrative and its decisive role in the ritual of the church makes it incisively poignant to the viewer. The reference to ritual here is particularly important as Filippo Neri had insisted on frequent communion and confession and the Oratory offered mass twenty times a day. The celebration of mass and the memory of Filippo Neri were further connected, as he was said to often levitate during the ritual, something which would still have been a vivid memory at the time Caravaggio painted this visual evocation of the mystery of transubstantiation.⁶⁵⁹

⁶⁵⁹ Wright, 'Caravaggio's Entombment', 35-42.

5.5: CONCLUSION

The audiences for Caravaggio's church commissions included a great diversity of different people. Effective written, spoken and visual communication became particularly important to a renewed Catholicism because of the multifarious population and the variety of visitors to early modern Rome. A range of media were used in public and institutional contexts as well as private devotion. These are crucial in examining how an early modern Catholic individual in Rome practised and experienced his or her faith, as well as how (s)he engaged with religious imagery.

Clarity and historical accuracy of the imagery was important. A new history of the Church, which addressed the criticisms voiced in Protestant histories and was built on material evidence (such as the catacombs), bound the Catholic faith and the city of Rome together, promoting Rome as the Christian capital of the world. The decoration of the churches and the relics played a part in this new image, which was further expounded in the papal chapel at the Vatican Palace and then disseminated to the general Roman public. Emotional engagement was also important in several aspects of faith and it was achieved through imitation. The spiritual exercises were common practice, encouraging the participant to use all the senses in imagining the religious narratives and, for example, to suffer with Christ on the cross or the inhabitants of hell. Personal devotion was endorsed and the spiritual exercises were effective particularly because they were a common and personal tool for the Roman Catholic believer. The reconstruction and representation of episodes from scriptural history were not confined to imaginary activities; even though religious plays were no longer endorsed by papal policy, the penitential programme of the confraternities included several public acts of re-enacting Christ's activities on earth. The use of imagery in private and public devotion substantiates the hypothesis that empathetic engagement was an integral part of viewer experience in early modern Rome.

The expectation of being moved in front of an image was supported by a number of factors, including the popular memories of Filippo Neri's ecstatic contemplations in the Chiesa Nuova and the engravings used as aids to the spiritual exercises.

Caravaggio's commissions in S. Maria del Popolo and the Chiesa Nuova fit into this context. The paintings would engage the viewer through the emphasis on movement, such as the cross being raised, Christ's body being lowered, the grief on the onlookers' faces and the outstretched arms of the Virgin. The movements of the characters were accentuated through neglecting the background, creating compositions with large

figures in a limited space and the use of sharp contrasts of light and shadow. Mirror neurons and other similar neurons in other areas of the brain reacting to pain, facial expressions and touch would elicit empathetic responses. Neuroscience also shows that with empathy training, which most viewers would have received through the spiritual exercises, the empathetic response would have been felt more keenly.

Freedberg's approach could explain why anyone would empathise with Caravaggio's imagery. Jones' approach leads her to realise that there is a connection between doing the spiritual exercises and looking at religious paintings. Their approaches of historical relativism and biological determinism can now be reconciled. A focus on either biological or cultural aspects is common within both the sciences and the humanities. However, an overview of how human genetic material and the environment can shape the character and experiences of human beings, suggests that the two factors are inseparable. Neural plasticity is the phenomenon by which the brain changes structure due to external input. John Onians is the first art historian to show how neural plasticity is particularly relevant to art history. While he examines the visual preferences of the visual cortex, the mirror neuron system is equally dependent on training and development. The connections between neurons in several areas have a major impact on the ways in which human beings are able to empathise. This is crucial evidence for showing how empathetic ability can be enhanced by training in disciplines such as the spiritual exercises. The variety of factors that structure a human brain and the ways in which these impact on human perception makes statements such as Ramachandran's and Mitter's look simplistic, and academic positions such as those of Freedberg and Jones dated and in need of revision. Viewer engagement with Caravaggio's imagery was much more likely in early modern Rome because of the contextually specific training provided by the spiritual exercises.

PART 6: CONCLUSION

That the audience made a fuss over Caravaggio's paintings was made clear by Caravaggio's biographers. However, what their responses involved cannot be explained by the historical records alone. Previously, art historians have been forced to rely on two contrasting opinions of the artist. The main body of the evidence is supplied by his early biographers, a group of unenthusiastic informants who focused on Caravaggio's putative realism and who offered largely negative responses to his work. The evidence provided by the patron Vincenzo Giustiniani is more problematic. He describes Caravaggio as a painter who, together with Annibale Carracci, possesses the best skills and therefore makes the best type of paintings. According to Giustiniani these skills consist of painting *di maniera* and imitating nature well. The combination of these two factors lies behind the superior quality of the works. Furthermore, it is clear that Caravaggio's followers and the collectors of his works found several features of his paintings appealing. However, in order to understand the 'fuss' it is necessary to consider a wide variety of viewers. This thesis has focused on three categories; artists, patrons and the public in Rome.

My own approach is designed to expand on current theories regarding responses to Caravaggio's work. The hope is that it is applicable to viewer engagement in general. It makes use of new neuroscientific data and involves, what I have termed, the 'contextual brain'; that is the human brain, as shaped by evolution and genetics *and* by experience, training and learning. I have made use of several neuroscientific tools. The first draws on current knowledge concerning the way humans respond to implied movement in imagery. What this knowledge demonstrates is that the human brain deals with represented movement in the same area as it deals with real movement, effectively anticipating the next step.

The second tool uses knowledge relating to mirror neurons and other types of neurons that function similarly, but in different areas of the brain. Mirror neurons in the pre-motor cortex respond to seeing particular hand and mouth movements (such as grabbing, tearing and other precision related tasks) and other communicative actions as if they were performed by the viewer. This creates a crucial link between the viewer and the characters represented in paintings, so facilitating an understanding of what is happening in the picture. The same happens in the somatosensory cortex in the case of seeing touch, in various areas of the cingulate cortex in the case of facial expressions

and also in several areas related to the experience of pain. These neurons have been connected to understanding action, empathetic reactions and emotional responses. Indeed Freedberg has suggested that they constitute the basis for a universal aesthetic response.

The third tool exploits knowledge of neural plasticity, the phenomenon that ensures that the brain changes as a result of experiences and training. While plasticity in other aspects of the visual system is used by Onians, I have used data on the plasticity of mirror neuron systems. The data demonstrates that plasticity in these systems has a substantial effect on empathetic responses. Instead of focusing on the universal responses suggested by Freedberg, this thesis makes use of these tools to discuss context-specific responses.

The first case study in the argument consisted of a comparison of Caravaggio's version of *Judith Beheading Holofernes* and Artemisia Gentileschi's versions of the same subject. This juxtaposition allowed for an investigation of the artists' engagement with imagery. Artemisia's paintings illustrate her interest in Caravaggio's use of chiaroscuro and movement, as she adopts the first feature and develops the second to suit her own aims and practices. Caravaggio innovatively used the most dynamic part of the narrative. Artemisia adapted the representation further, increasing the focus on violent action in her version. The movements depicted in the imagery, such as the features of grabbing, the facial expressions, the slicing of Holofernes' neck, would have activated various areas of the viewers' brains making them engage with the imagery. In this painting there are also traces of Caravaggio's working technique (visible incisions around Holofernes' head) that in particular may have elicited a response in a practitioner used to making and looking at the marks left by earlier painters. Here the skills of the artist are closely bound with empathetic engagement with the images. Using mirror neurons in examining how one artist adapts features from other artistic sources facilitates an otherwise problematic discussion on intention.

The second case study focused on the collector's viewer engagement. Three of Caravaggio's most debated paintings were in Vincenzo Giustiniani's collection. In all three, movement and expression are crucial in understanding and engaging with the subject matter. Vincenzo Giustiniani's favourite painting, *Victorious Cupid*, was particularly hailed for its lifelikeness. In terms of Vincenzo's consciously acquired skills, this painting flaunts the collector's abilities and interests. It also plays on a culturally specific erotic wit, common in Rome at this time. In seventeenth-century

statements about the image, the lifelikeness is related both to Caravaggio's alleged realism and the effect on the viewer. It is also clear that Caravaggio's depiction of Cupid displays a pose borrowed from Michelangelo, something Vincenzo would have been aware of. Caravaggio's Cupid is caught in movement as the boy is represented as if he were about to step down from the table and enter the space of the viewer. Caravaggio's use of light and shadow emphasises the body of the boy.

Cupid is represented as a contradictory figure. The focus on the vulnerability of the pose and the focus on touch sit uneasily with the boy's facial expression and the firm hold he has on the arrows. These qualities are picked up and understood automatically because of mirror neurons and similar neurons elsewhere in the brain. Here the intellectual understanding of the image, the boy Cupid being possibly the most dangerous child in the world, is emphasised through the emotional impact resulting from the depiction of movement, gesture and expression.

Doubting Thomas also engages the viewer through touch and the expression of surprise on his face. This is particularly interesting as the subject matter deals with the sensual basis of knowledge. Through the image, the viewer can explore the relation between experience based knowledge and belief that is not based on empirical evidence. Again, the sensual aspects of the image are crucial to understanding and engaging with the narrative. The depiction of movement, gesture and expression in *St Matthew and the Angel* suggests God's role as the ultimate author of the gospels; the saint's experience as the mediator is also emphasised. Even though Caravaggio's rendering of the saint closely follows the narrative, it may not have been understood in that way by the common viewer, and the image was rejected. The full meaning of the depiction would, however, not have been lost on Vincenzo.

The final case study involved Caravaggio's church commissions and the large groups of people who viewed them. The *Crucifixion of St Peter* and the *Conversion of St Paul* in S. Maria del Popolo are discussed by scholars as having constituted a break in Caravaggio's career. His distinctive modelling of bodies (through the use of dark shadows and brightly lit areas) is made more noticeable by the lack of background detail and the closeness of the characters to the picture plane. Again, the model for his composition is ultimately Michelangelesque, but Caravaggio upstages the old master through reconsidering the movement in the imagery. While his depiction of the *Crucifixion of St Peter* in particular is a virtuoso performance in which Caravaggio's skill is measured against Michelangelo, the *Conversion of St Paul* shows a different

type of conversion, in which instead of shielding himself with his hands, the saint accepts the light of God.

In the *Entombment* in the Chiesa Nuova, which was considered Caravaggio's most successful work, Christ's body is offered directly to the viewer. As the figure of Christ seems to be lowered into the viewers' space, it becomes comparable to the Host which would have been held up in front of the picture and then offered to the audience. Here the movement implied in the imagery makes the representation a part of the ritual. The responses of viewers in the churches of Rome were expected to contain an element of emotional engagement. Training in spiritual exercises would have made these images more accessible to contemporary viewers, who were used to imagining themselves as taking part in the religious narratives. The training would most likely have increased their capability to respond to imagery, encouraging them to engage with it emotionally and empathetically.

Caravaggio tended to focus on particularly action-oriented parts of the narratives he was commissioned to produce. He emphasised the movement of objects, such as the sword slicing through Holofernes' neck or the wing touching Cupid's thigh. However, the representations of the human body and face are even more notable. Caravaggio creatively borrowed, invented and developed poses, gestures and facial expressions which would convey the character and action in the narrative. In the paintings described above, he rethought each subject matter, reflecting on what types of movement and expressions were required to make the painting both accessible and engaging. It is clear from the examples that Caravaggio's use of movement was a part of his innovation, and the use of chiaroscuro, more commonly associated with his 'realism', can be seen as a way of emphasising the bodies and faces of the characters, making the gestures and expressions more explicit to the viewer. In terms of his technique, it is also clear that poses were adapted from earlier models and not exclusively a product of the study of nature.

Jones and Freedberg use very different methods in analysing viewer engagement and consider their approaches as antithetical to one another. A neuroarthistorical approach shows how the two can be reconciled. Through taking into account a contextual brain, it is possible to suggest how its structure would change through continual training in spiritual exercises and it is very likely that people in Rome were particularly susceptible to Caravaggio's imagery. This is not to say that his works were always successes. Many of his paintings were rejected and how much emotional

engagement was useful was debated (as seen in the case of excessive emotional responses to dramas, such as the Passion play organised by the Gonfaloni).

Nonetheless, Caravaggio was not the only one who used emphasis on different types of movement as an innovative way of engaging the spectator. For example, Annibale Carracci focused intently on both movement and touch in the ceiling of the Farnese Gallery. Indeed, the emphasis on violent action seen in the imagery in S. Stefano Rotondo and on movement exemplified by Lomazzo's art theory in the late sixteenth century is extended around the turn of the century by Caravaggio and Annibale Carracci and then adapted and amplified by several artists throughout the seventeenth century. Artemisia, Rubens and Elsheimer borrowed from Caravaggio in their depictions of *Judith Beheading Holofernes*. Bernini was to use movement as a crucial factor in his display of skill in his sculptures.

This is also an area where more work is necessary. There is little research on the rendering of movement in the work on Caravaggio's followers, besides Artemisia, and a neuroarthistorical approach to features in their paintings would be useful in understanding the adaptation of his work more fully. Such a study would also have to take into account artists who were influenced by Caravaggio but are more commonly treated seriously in their own right, such as Rubens and Velasquez.

The paintings used in this thesis were chosen to demonstrate that Caravaggio emphasised movement in different types of paintings in a variety of settings. There are several other works that could also be discussed in the same way. For example, the paintings by Caravaggio in Scipione Borghese's collection include the *David with the Head of Goliath* where David holds Goliath's head out for inspection. Here, the facial expressions, David's grasp of Goliath's hair and the movement of the arm can all be discussed in terms of mirror neuron response. Further, Borghese owned the *Madonna dei Palafrenieri* in which the Christ Child and the Virgin together step on a writhing snake, in a similar way to the examples used by Shearman in discussing stepping movements in general. Other works by Caravaggio in which movement needs to be considered in greater detail, includes *Boy Bitten by Lizard*, which features the bite of the lizard, an expression of surprised pain and detailed hand movements, and the series of paintings that are now in S. Luigi dei Francesi, Caravaggio's first major church commission, in which there are several striking poses. There is also a marked difference in the work Caravaggio executed after leaving Rome for Naples, something that most likely could be further understood through focusing on the viewers there and their

reactions. It is clear that movement and illusionism became a critical part of seventeenth-century culture and neuroarthistory may provide a useful approach in reconsidering various visual features that have been associated with the ‘baroque’.

There is also a need for more in-depth material on each church and the practices related to the works. For example, it may be useful to do a detailed study of the daily activities in the Chiesa Nuova, including the sermons delivered, the rituals performed and the uses of all of the paintings in the church as a coherent group. Another particularly interesting subject for further study is S. Stefano Rotondo and its gruesome didactic imagery. These types of groups of paintings cannot be fully understood without an account of viewer experience and emotional engagement. Neuroarthistory provides the tools to start investigating these viewer reactions in greater detail.

The tools used here are circumscribed by the project. There is more neuroscientific data that could be used in understanding how people look at paintings, and there is more and more material to work with, particularly concerning neural plasticity and mirror neurons. However, the work produced by neuroaestheticians, such as Zeki’s understanding of how the brain completes features in art, should also be tried and tested for contextual purposes. There is additionally the possibility for art historians to develop new ways of practising visual analysis with neuroscientific data. Baxandall’s discussion of Braque’s *Violin and Pitcher* provides a good foundation for this type of work; but delving further into the human brain may offer many more insights than those gained from his study of the eye alone.

The main benefit of using a neuroarthistorical approach to Caravaggio is the new means it offers art historians to analyse the otherwise elusive emotional and empathetic responses suggested by the biographers. This in turn also helps to re-evaluate the term ‘realism’ and in discussing the viewer engagement stemming from Caravaggio’s technique of using harsh shadows to emphasise the movements of bodies and facial expressions. Being able to employ an approach that combines contextual relativism and human biology is particularly useful. This can combine and expand on approaches such as those by Jones and Freedberg. The use of a contextual brain may also improve and modernise Baxandall’s ‘period eye’, an approach that has been shown to be very useful to art history at large.

Onians’ work demonstrates another great benefit. Neuroarthistory can be applied globally and to any time period. It can easily change focus; analysing the near universal, features similar across a continent, within one country, within one specific social group

or features which are unique to an individual. It offers the opportunity to break free from the view that culture is autonomous, without having to sacrifice the context specific features that art historians are interested in studying.⁶⁶⁰ Moreover, neuroarthistory can be applied to support existing theories presented in other approaches.

In conclusion, this thesis posits that beyond the conscious intellectual responses, there is a need to understand the emotional, empathetic and visceral engagement viewers have with material artefacts. In particular, it has shown how people in seventeenth-century Rome engaged empathetically and emotionally with Caravaggio's paintings. Neuroscientific evidence has been used in two capacities. Firstly, it was applied to demonstrate how human brains engage with different types of movement as represented in works of art. Secondly, data on how human brains change, as a result of experience and training, was used to demonstrate that empathetic ability could be enhanced through different types of spiritual exercises.

When Bryson commented on the value of a neurologically based approach, he was particularly struck by the applicability of the tools provided by neuroscience. This is an important point. A neuroarthistorical approach can be applied to areas, like emotional response, that have resisted systematic analysis by available approaches. It is indeed necessary for art historians to keep up to date with neuroscientific material, or risk making unfounded statements about human nature. Art historians need to understand the way in which vision functions in order to make claims about features in works of art. At the same time, the primacy of cognition and culture can be tempered by a more inclusive and yet flexible way of approaching human behaviour and engagement with artefacts.

⁶⁶⁰ See, Onians, 'Introduction', *Atlas*, 10-13.

BIBLIOGRAPHY

Grove Art Online (Oxford Art Online, Oxford University Press, 2007-9),
<<http://www.oxfordartonline.com/subscriber/>>.

The Holy Bible, (containing the Apocrypha of the Old Testament) Revised Standard Edition, (London: Thomas Nelson and Sons Ltd., 1959).

Oxford English Dictionary, 2nd ed., (Oxford: Oxford University Press, 1989).

ABROMSON, MORTON, 'Clement VIII's Patronage of the Brothers Alberti', *The Art Bulletin*, 60/3, (1978), 531-547.

---, *Painting in Rome during the Papacy of Clement VIII (1592-1605)*, (New York: Garland Publishing, 1981).

ACKERMAN, GERALD, 'Lomazzo's Treatise on Painting', *The Art Bulletin*, 49/4, (1967), 317-26.

AGO, RENATA, *Il Gusto delle Cose, Una Storia degli oggetti nella Roma del Seicento*, (Rome: Donzelli, 2006)

ALBERTI, LEON BATTISTA, *On Painting* and *On Sculpture*, trans. Cecil Grayson (ed.), (London: Phaidon, 1972).

ALBERTI, ROMANO, *Origine et Progresso dell' Academia del Disegno de Pittori, Scultori & Architetti di Roma*, (Pavia: Pietro Bartolli, 1604).

AMARAL, DAVID, 'The Anatomical Organisation of the Central Nervous System', in Kandel, Schwartz and Jessell (eds.), *Principles of Neural Science*, 317-36.

ANDERSON, STEVEN, DAMASIO, HANNAH and DAMASIO, ANTONIO, 'A Neural Basis for Collecting Behaviour in Humans', *Brain*, 128/1 (2004), 201-12.

ANDRETTA STEFANO, 'Gli Anni Santi del Seicento', in *La Storia dei Giubilei, 1600-1775*, (Florence, BNL, 1999).

---, 'Religious life in Baroque Rome', in Kessel and Schulte (eds.), *Rome Amsterdam*, 168-74.

ARISTOTLE, *Poetics*, trans. Malcolm Heath, (London: Penguin, 1997).

AYTO, JOHN, *Dictionary of Word Origins*, (London: Bloomsbury, 1990).

BACON, FRANCIS, *The Advancement of Learning*, (Oxford: Oxford University Press, 1906).

BAGLIONE, GIOVANNI, *Le Vite de' Pittori, Scultori et Architetti dal Pontificato di Gregorio XIII del 1572, in fino a tempi di Papa 'Urbano Ottavo nel 1642*, [Rome, Stamperia d'Andrea Fei 1642], (High Wycombe: University Microfilms, 1973).

---, *Le Vite de' Pittori, Scultori, et Architetti...*, [Rome: Stamperia d'Andrea Fei, 1642], reproduced and trans. Hibbard, *Caravaggio*, 351-6.

BAILEY, GAUVIN ALEXANDER, *Between Renaissance and Baroque: Jesuit Art in Rome, 1565-1610*, (Toronto: University of Toronto Press, 2003).

BALDINUCCI, FILIPPO, *Notizie dei Professori del Disegno*, vol. 3, Ferdinando Ranalli (ed.), (Florence: V. Batelli e Compagni, 1846).

BANGERT, MARC et al., 'Shared Networks for Auditory and Motor Processing in Professional Pianists: Evidence from fMRI Conjunction', *Neuroimage*, 30 (2006), 917-926.

BARASH, MOSHE, *Giotto and the Language of Gesture*, (Cambridge: Cambridge University Press, 1987).

BARBIERI, COSTANZA, BARCHIESI, SOFIA and FERRARA, DANIELLE, *Santa Maria in Vallicella*, (Rome: Fratelli Palombi Editori, 1995), 66.

BARONIO, CESARE, *Annales Ecclesiastici*, 12 vols. (Antwerp: Moreti, 1597-1612).

BAZIN, GERMAIN, *The Baroque, Principles, Styles, Modes, Themes*, (London: Thames and Hudson, 1968).

BAXANDALL, MICHAEL, *Painting and Experience in Fifteenth Century Italy*, 2nd ed., (Oxford: Clarendon Press, 1988).

---, *Patterns of Intention, On the Historical Explanation of Pictures*, (New Haven: Yale University Press, 1985).

---, 'Fixation and Distraction: The Nail in Braque's Violin and Pitcher', in John Onians (ed.), *Sight and Insight; Essays on Art and Culture in Honour of E. H. Gombrich at 85*, (London: Phaidon, 1994), 399-415.

BEAR, MARK et al. (eds.), *Neuroscience; Exploring the Brain*, (Baltimore: Lippincott Williams and Wilkins, 1996, 2001 and 2007).

BEDAUX, JAN BAPTISTE and COOKE, BRETT (eds.), *Sociobiology and the Arts*, (Amsterdam: Editions Rodophi, 1999).

BELL, JANICE, 'Some Seventeenth-Century Appraisals of Caravaggio's Coloring', *Artibus et Historiae*, 14/27 (1993), 103-29.

BELLORI, GIOVANNI PIETRO, *The Lives of Annibale & Agostino Carracci*, trans. Catherine Enggass, (University Park: Pennsylvania State University Press, 1968).

---, *Le Vite de' Scultori e Architetti Moderni*, [Rome: 1672], Evelina Borea (ed.), (Turin: Giulio Einaudi, 1976).

---, *Le Vite de' Scultori e Architetti Moderni*, [Rome: 1672], reproduced and trans. Hibbard, *Caravaggio*, 360-74.

BELTING, HANS, *Likeness and Presence; A History of the Image before the Era of Art*, (Chicago: University of Chicago Press, 1994).

BERENSON, BERNARD, *Del Caravaggio, delle sue Incongruenze e della sua Fama*, (Florence: Electa, 1950).

BISSELL, RAYMOND WARD, *Artemisia Gentileschi and the Authority of Art*, (University Park: Pennsylvania State University Press, 1999).

BJURSTRÖM, PER, 'Baroque Theatre and the Jesuits', in Rudolf Wittkower and Irma Jaffe (eds.), *Baroque Art: the Jesuit Contribution*, (New York: Fordham University Press, 1972), 99-110.

BLACKMORE, SUSAN, *Consciousness, A Very Short Introduction*, (Oxford: Oxford University Press, 2005).

BLAKE MCHAM, SARAH, 'Donatello's Bronze *David* and *Judith* as Metaphors of Medici Rule in Florence', *Art Bulletin*, 83/1, (2001), 32-47.

BLASTENBREI, PETER, 'Violence, Arms and Criminal Justice in Papal Rome, 1560-1600', *Renaissance Studies*, 20/1 (2006), 68-87.

BODMER, HEINRICH, 'Le Note Marginali di Agostino Carracci nell'Edizione del Vasari del 1568', *Il Vasari*, 10, (1939), 89-127.

BOER, WIETSE DE, *The Conquest of the Soul; Confession, Discipline, and Public Order in Counter-Reformation Milan*, (Leiden: Brill, 2001).

BOLOGNA, FERDINANDO, 'Caravaggio, the final years (1606-1610)', in Silvia Cassani and Paolo Altieri (eds.) *Caravaggio: the Final Years*, (Naples: Electra Napoli, 2005), 16-47.

BORROMEO, CARLO, *Instructiones Fabricae et Supellectilis Ecclesiasticae*, [Milan: 1577], trans. and commentary by Evelyn Carole Voelker, (Ann Arbor, Michigan: University Microfilms, 1982).

BORROMEO, FEDERICO, *De Pictura Sacra*, [Milan: 1624], Carlo Castiglioni (ed.), (Sora: Pasquale Castro Camastro, 1932).

BOSCHLOO, ANTON WILLEM ADRIAAN, *Annibale Carracci in Bologna*, 2 vols., trans. Robert Symonds, (The Hague: Government Publishing Office, 1974).

BROWN, BEVERLY LOUISE (ed.), *The Genius of Rome*, (London: Royal Academy of Arts, 2001).

BROWN, PETER, *The Cult of the Saints; Its Rise and Function in Late Christianity*, (London: SCM Press, 1981)

BRYSON, NORMAN, 'Introduction: The Neural Interface', in Warren Neidich, *Blow-up: Photography, Cinema and the Brain*, (New York: Distributed Art Publishers, 2003), 11-9.

---, HOLLY, MICHAEL ANN and MOXEY, KEITH (eds.), *Visual Theory*, (Cambridge: Polity Press, 1991).

BUCCINO, GIOVANNI, BINOFSKY, FERDINAND and RIGGIO, LUCIA, 'The Mirror Neuron System and Action Recognition', *Brain and Language*, (Aug. 2003), 1-7.

BURKE, PETER, 'Rome as the Centre of Information and Communication', in Pamela Jones and Thomas Worcester (eds.), *From Rome to Eternity, Catholicism and the Arts in Italy, ca. 1550-1650*, (Leiden: Brill, 2002), 253-69.

BUSER, THOMAS, 'Jerome Nadal and Early Jesuit Art in Rome', *The Art Bulletin*, 58/3, 1976, 424-33.

CALVO-MERINO, BEATRIZ et al., 'Action Observation and Acquired Motor Skills: An fMRI Study with Expert Dancers', *Cerebral Cortex*, 15 (2005), 1243-49.

CAMIZ, FRANCA TRINCHIERI, 'The Castrato Singer: From Informal to Formal Portraiture', *Artibus et Historiae*, 9/18, (1988), 171-86.

---, 'Music and Painting in Cardinal del Monte's Household' Author(s): *Metropolitan Museum Journal*, 26, (1991), 213-26.

CARR, LAURIE et al., 'Neural Mechanisms of Empathy in Humans: A Relay from Neural Systems for Imitation to Limbic Areas', *Proceedings of the National Academy of Sciences*, 100/9, (2003), 5497-5502.

CAVAZZINI, PATRIZIA, 'Documents Relating to the Trial of Agostino Tassi', in Keith Christiansen and Judith Mann, *Orazio and Artemisia Gentileschi*, (New Haven: Yale University Press, 2001), 432-44.

CEBALLOS, ALFONSO RODRIGUES G. DE, 'The Art of Devotion', in Xavier Bray (ed.), *The Sacred Made Real*, (London, The National gallery, 2009).

CECI, STEPHEN and WILLIAMS, WENDY, *The Nature Nurture Debate, The Essential Readings*, (Oxford: Blackwell Publishers, 1999).

CELLINI, BENVENUTO, *The Life of Benvenuto Cellini*, trans. John Addington Symonds, (London: Phaidon, 1949).

CHALUPA, LEO and WERNER, JOHN (eds.), *The Visual Neurosciences*, 2 vols. (Cambridge Mass.: MIT Press, 2004).

CHANGEUX, JEAN-PIERRE, *Neuronal Man; The Biology of the Mind*, (New York: Pantheon Books, 1985).

---, 'Art and Neuroscience', *Leonardo*, 27/3, (1994), 189-201.

CHORPENNING, JOSEPH, 'Another Look at Caravaggio and Religion', *Artibus et Historiae*, 8/16 (1987), 149-58.

CHRISTIANSEN, KEITH 'Caravaggio and "L'esempio davanti del Naturale"', *Art Bulletin*, 68/3, (1986), 421-45.

---, and MANN, JUDITH, *Orazio and Artemisia Gentileschi*, (New Haven: Yale University Press, 2001).

CICERO, *De Oratore*, 2 vols., trans. Edward William Sutton and Harris Rackham, (The Loeb Classical Library, London: William Heinemann Ltd, 1942).

COHEN, ELISABETH, 'Seen and Known: Prostitutes in the Cityscape of Late-Sixteenth Century Rome', *Renaissance Studies*, 12/3 (1998), 392-409.

---, 'The Trials of Artemisia Gentileschi: A Rape as History', *Sixteenth Century Journal*, 31/1 (2000), 47-75.

COLE, JONATHAN, 'Empathy Needs a Face', *Journal of Consciousness Studies*, 8/5-7, (2001), 51-68.

COLIVA, ANNA, 'Scipione Borghese as a Collector', in Moreno and Stefani (eds.), *The Borghese Gallery*, 16-29.

COLMAN, ANDREW, (ed.), *A Dictionary of Psychology*, (Oxford: Oxford University Press, 2006). *Oxford Reference Online*, Oxford University Press, University of East Anglia, 04.03.2009, <<http://www.oxfordreference.com>>.

CONTARDI, BRUNO, 'Caravaggio e la Lombardia', in *Caravaggio; La Luce nella Pittura Lombarda*, (Bergamo: Electa, 2002), 23-7.

COONEY, PATRICK, *L'Opera Completa di Annibale Carracci*, (Milan: Rizzoli, 1976).

COSTAMAGNA, ALBA, 'Introduction', in Moreno and Stefani (eds.), *The Borghese Gallery*, 6-14.

COUNCIL OF TRENTO, *Canones et Decreta Sacrosancti Oecumenici et Generalis Concilii Tridentini sub Paulo III, Iulio III, Pio III, Pontificibus Max.*, (Rome: Apud P. Mantium, 1564)

CROPPER, ELIZABETH, 'Review: Caravaggio and the Giustiniani. Rome and Berlin', *The Burlington Magazine*, 143/1180, (2001), 449-52.

DANDELET, THOMAS, 'Spanish Conquest and Colonization at the Center of the Old World: The Spanish Nation in Rome, 1555-1625', *The Journal of Modern History*, 69/3 (1997), 479-511.

DANESI SQUARZINA, SILVIA, 'The Collections of Cardinal Benedetto Giustiniani. Part I.', *The Burlington Magazine*, 139/1136, (1997), 766-91.

DARWIN, CHARLES, *The Expression of the Emotions in Man and Animal*, [1872], (London: Harper Collins, 1998).

DELUMEAU, JEAN, *Vie Économique et Sociale de Rome*, (Paris: E. de Boucard, 1957).

DEMPSEY, CHARLES, 'Et Nos Cedamus Amori': Observations on the Farnese Gallery', *The Art Bulletin*, 50/4 (1968), 363-74.

---, 'The Carracci Postille to Vasari's Lives', *The Art Bulletin*, 68/1, (1986), 72-6.

DENT WEIL, PHOEBE, Technical Art History and Archeometry II; An Exploration of Caravaggio's Painting Techniques, *Revista Brasileira de Arqueometria, Restauração e Conservação*. 1/3, 2007, 106-10.

DEREKOWSKI, JAN, 'Illusion and Culture', in Richard Gregory and Ernst Gombrich (eds.), *Illusion in Nature and Art*, (London: Duckworth, 1973).

DESCARTES, RENÉ, *The Passions of the Soul*, [1649], (Cambridge: Hackett Publishing Company, 1989).

DISSANAYAKE, ELLEN, *Homo Aestheticus, Where Art Comes From and Why*, (New York: Free Press, 1992).

---, 'Sociobiology and the Arts: Problems and Prospects' in Jan Baptiste Bedaux and Brett Cooke (eds.), *Sociobiology and the Arts*, (Amsterdam: Editions Rodophi, 1999), 27-42.

EHRLICH, TRACY, *Landscape and Identity in Early Modern Rome, Villa Culture at Frascati in the Borghese Era*, (Cambridge: Cambridge University Press, 2002).

EISENBICHLER, KONRAD, (ed.), *Crossing the Boundaries*, Medieval Institute publications, (Michigan: Western Michigan University, 1991).

EKMAN, PAUL, FRIESEN, WALLACE and ELLSWORTH, PHOEBE (eds.), *Emotion in the Human Face*, (New York: Pergamon, 1972).

--- and ROSENBERG, ERIKA (eds.), *What the Face Reveals*, (Oxford: Oxford University Press, 2005).

EVANS, DYLAN, *Emotion, the Science of Sentiment*, (Oxford: Oxford University Press, 2001).

FADIGA, LUCIANO et al., 'Motor Facilitation during Action Observation: a Magnetic Stimulation Study', *Journal of Neurophysiology*, 73, (1995), 2608-2611.

FICINO, MARCILIO, *Commentary on Plato's Symposium on Love*, trans. Sears Jayne, (Dallas: Spring Publications, 1985).

FLACIUS ILLYRICUS, MATTHIAS, *Ecclesiastica Historia*, (Nüremberg: Apud Ioannem Leonardum Langium, 1757-1760).

FRAGNITO, GIGIOLA, 'Cardinal's Courts in Sixteenth-Century Rome', *The Journal of Modern History*, 65/1 (1993), 26-56.

FREEDBERG, DAVID, 'Johannes Molanus on Provocative Painting', *Journal of the Warburg and Courtauld Institutes*, 34, (1971), 229-45.

---, *The Power of Images*, (Chicago: University of Chicago Press, 1989).

---, 'Action, Empathy and Emotion in the History of Art', paper given at *From Mirror Neurons to the Mona Lisa: Visual Art and the Brain*, at the New York Academy of Sciences on 05.11.2005. University of East Anglia, 27.04.2007, <<http://www.nyas.org/ebriefreps/ebrief/000500/presentations/freedberg/player.html>>.

---, 'Empathy, Motion and Emotion', in Klaus Herding and Antje Krause Wahl (eds.), *Wie sich Gefühle Ausdruck verschaffen: Emotionen in Nahaufnahme*, (Berlin: Driesen, 2007), 17-51.

--- and GALLESE VITTORIO, 'Motion, Emotion and Empathy in Esthetic Experience', *Trends in Cognitive Sciences*, 11/5, (2007), 197-203.

FREEDBERG, SYDNEY JOSEPH, *Painting in Italy 1500-1600*, (Pelican History of Art Series, London: Penguin Books, 1971).

---, *Circa 1600: A Revolution of Style in Italian Painting*, (Cambridge, Mass.: Harvard University Press, 1983).

FRIEDLAENDER, WALTER, *Caravaggio Studies*, (Princeton: Princeton University Press, 1955).

GALLESE, VITTORIO, 'The 'Shared Manifold' Hypothesis: From Mirror Neurons To Empathy', *Journal of Consciousness Studies*, 8/ 5-7, (2001), 33-50.

GARRARD, MARY, *Artemisia Gentileschi around 1622: The Shaping and Reshaping of an Artistic Identity*, (Berkeley: University of California Press, 2001).

GASER, CHRISTIAN and SCHLAUG, GOTTFRIED, 'Brain Structures Differ between Musicians and Non-Musicians', *The Journal of Neuroscience*, (Oct. 2003), 9240-5.

GENTILI, AUGUSTO, BARCHAM, WILLIAM and WHITELEY, LINDA, *Paintings in the National Gallery, London*, (London: Little, Brown and Company, 2001).

GILBERT, CREIGHTON, *Caravaggio and his two Cardinals*, (University Park: Pennsylvania State University Press, 1995).

GILIO, GIOVANNI ANDREA, *Due Dialoghi*, [Rome: Antonio Gioioso, 1564], Paula Barocchi (ed.), (Florence: Studio per Edizioni Scelte, 1986).

GIUSTINIANI, VINCENZO, 'From a Letter Written by Giustiniani to Amayden', in Robert Enggass and Jonathan Brown (eds.), *Italy and Spain 1600-1758: Sources and Documents*, (New Jersey: Englewood Cliffs, 1970).

GLICKSTEIN, MITCHELL, 'Vision Structure and Function: The Early History', in Leo Chalupa and John Werner (eds.), *The Visual Neurosciences*, 2 vols. (Cambridge Mass.: MIT Press, 2004), 3-13.

GOLDTHWAITE, RICHARD, *Wealth and the Demand for Art in Italy, 1300-1600*, (Baltimore: The Johns Hopkins University Press, 1993).

GOODSON, CAROLINE, 'Material Memory: Rebuilding the Basilica of S. Cecilia in Trastevere', *Early Medieval Europe*, 15, (2007), 2-34.

GOMBRICH, ERNST, *Art and Illusion: A Study in the Psychology of Pictorial Representation*, (London: Phaidon Press Limited, 1960).

---, *Meditations on a Hobby Horse and other Essays on the Theory of Art*, (London: Phaidon, 1963).

---, 'Ritualized Gesture and Expression in Art', *Philosophical Transactions of the Royal Society of London*, 251, (1966), 393-401.

---, *The Image and the Eye; Further Studies in the Psychology of Pictorial Representation*, (Oxford: Phaidon, 1982).

---, *The Sense of Order, A Study in the Psychology of Decorative Art*, 2nd edn., (London: Phaidon, 1984).

---, *Art and Illusion*, 6th edn., (London: Phaidon, 2002).

---, and GREGORY, RICHARD (eds.), *Illusion in Nature and Art*, (London: Gerald Duckworth, 1973).

GRAEVE, MARY ANN, 'The Stone of Unction in Caravaggio's Painting for the Chiesa Nuova', *The Art Bulletin*, 40/3 (1958), 223-238.

GRAFTON, ANTHONY (ed.), 'The Vatican and its Library', in *Rome Reborn; the Vatican Library and Renaissance Culture*, (New Haven: Yale University Press, 1993), 3-45.

GREENBLATT, STEPHEN, *Renaissance Self-Fashioning; From More to Shakespeare*, (Chicago: The University of Chicago Press, 1980).

GREGORY, RICHARD, *Eye and Brain, The Psychology of Seeing*, (London: Weidenfeld & Nicolson, 1966).

GROPPi, ANGELA, 'Roman Alms and Poor Relief in the Seventeenth Century', in Kessel and Schulte (eds.), *Rome Amsterdam*, 180-91.

GUIDICCIoni, LELIO, 'L'Oratio', trans. Frederick McGinness, *Right Thinking and Sacred Oratory in Counter Reformation Rome*, (Princeton: Princeton University Press, 1995), 176 and for the original 311.

HADJIKHANI, NOUCHINE et al., 'Anatomical Differences in the Mirror Neuron System and Social Cognition Network of Autism', *Cerebral Cortex*, 16 (2006), 1276-82.

HAMER, DEAN and COPELAND, PETER, *Living with our Genes: Why they Matter more than you Think*, (London: Macmillan, 1999).

HAMMER, L. R., (full name unavailable), 'Further Hoarding Preferences of Hamsters', *Psychonomic Science*, 26, (1972), 139-40.

HANLON, GREGORY, *Early Modern Italy, 1550-1800*, (London: Macmillan Press, 2000).

HARRISON, CHARLES, WOOD, PAUL and GAIGER, JASON (eds.), *Art in theory: 1815-1900*, (London: Blackwell, 1998).

HASKELL, FRANCIS, *Patrons and Painters*, (New Haven: Yale University Press, 1980).

HERRMANN FIORE, KRISTINA, 'Scipione Borghese's New All'antica Villa', in Moreno and Stefani (eds.), *The Borghese Gallery*, 24-31.

HERTLING, LUDWIG and KIRSCHBAUM, ENGELBERT, *The Roman Catacombs and their Martyrs*, (London: Darton, Longman & Todd, 1956).

HERZ, ALEXANDRA, 'Cardinal Cesare Baronio's Restoration of SS. Nereo ed Achilleo and S. Cesareo de'Appia', *The Art Bulletin*, 70/4 (1988), 590-620.

HIBBARD, HOWARD, *Caravaggio*, (London: Thames and Hudson, 1983).

HIGGINSON, PETER, 'Time and Papal Power. The Pilgrim's Experience of the Old and New in Early Modern Rome', in Antoinette Roesler-Friedenthal and Johannes Nathan (eds.), *The Enduring Instant: Time and the Spectator in the Visual Arts: a Section of the XXXth International Congress of the History of Art, London*, (Berlin: Gebr. Mann, 2003), 193-208.

HILL, MICHAEL, 'The Patronage of a Disenfranchised Nephew, Cardinal Scipione Borghese and the Restoration of San Crisogno in Rome, 1616-1628', *Journal of the Society of Architectural Historians*, 60/4, 2001, 432-49.

HIRSCH, HELMUT, and SPINELLI D. N. (full name not available), 'Modification of the Distribution of Receptive Field Orientation in Cats by Selective Visual Exposure during Development', *Experimental Brain Research*, 13 (1971), 509-27.

HOLLINGSWORTH, MARY, *Patronage in Sixteenth Century Italy*, (London: John Murray, 1994).

HOLT, ELIZABETH GILMORE (ed.), *A Documentary History of Art*, vol. 2, (New York: Doubleday & Company, 1958).

HORACE, *Ars Poetica*, trans. Henry Rushton Fairclough, (The Loeb Classical Library, London: William Heinemann Ltd., 1926).

HORN, GABRIEL, 'Novelty, Attention and Habituation', in Christopher Riche (ed.), *Attention in Neurophysiology*, (London: Butterworth's, 1969), 230-46.

HUBEL, DAVID and WIESEL, TORSTEN, 'Receptive Fields of Cells in Striate Cortex of very young Visually Inexperienced Kittens', *Journal of Neuropsychology*, 26 (1963), 994-1002.

HUGHES, ANTHONY, *Michelangelo*, (London: Phaidon, 1997).

HUTTENLOCHER, PETER, *Neural Plasticity: The Effects of Environment on the Development of the Cerebral Cortex*, (Cambridge, Mass.: Harvard University Press, 2002).

HYDE MINOR, VERNON, *Baroque and Rococo: Art and Culture*, (London: Laurence King, 1999).

IGNATIUS OF LOYOLA, *The Spiritual Exercises*, 5th ed., trans. William Hawks Longbridge, (London: Mowbray, 1955).

---, *Exercitia Spiritualia*, (Rome: 1606).

JACKSON, PHILIP et al., 'Empathy Examined through the Neural Mechanisms Involved in Imagining how I Feel versus how you Feel Pain', *Neuropsychologia*, 44 (2006), 752-761.

---, MELTZOFF, ANDREW and DECETY, JEAN, 'How do we Perceive the Pain of Others? A Window into the Neural Processes involved in Empathy', *Neuroimage*, 24/3, (2005), 771-9.

JAUSS, HANS ROBERT, 'Literary History as a Challenge to Literary Theory', in Ralph Cohen (ed.) *New Directions in Literary History*, (London: Routledge and Kegan Paul, 1974), 11-41.

JONES, PAMELA, *Altarpieces and Their Viewers in the Churches of Rome from Caravaggio and Guido Reni*, (London: Ashgate, 2008).

KANDEL, ERIC, SCHWARTZ, JAMES and JESSELL, THOMAS (eds.), *Principles of Neural Science*, 4th ed., (New York: McGraw-Hill, 2000).

--- and WURTZ, ROBERT, 'Constructing the Visual Image', in Kandel, Schwartz and Jessell (eds.), *Principles of Neural Science*, 492-506.

KESSEL, PETER VAN and SCHULTE ELISJA (eds.), *Rome Amsterdam, Two growing Cities in Seventeenth-Century Europe*, (Amsterdam: Amsterdam University Press, 1997).

KEYSERS, CHRISTIAN et al., 'A Touching Sight: SII/PV Activation during the Observation and Experience of Touch', *Neuron*, 42, (2004), 335-46.

KING, CATHERINE, *Representing Renaissance Art, c. 1500-1600*, (Manchester: Manchester University Press, 2007), 61-102.

KOLB, BRYAN, CIOE, JAN and COMEAU, WENDY, 'Contrasting Effects of Motor and Visual Spatial Learning Tasks on Dendritic Arborization and Spine Density in Rats', *Neurobiology of Learning and Memory*, 90, (2008), 295-300.

--- and WHISHAW, IAN, *An Introduction to Brain and Behaviour*, (New York: Worth Publishers, 2001).

KOURTZI, ZOE and KANWISHER, NANCY, 'Activation in Human MT/MST by Static Images with Implied Motion', *Journal of Cognitive Neuroscience*, 12/1, (2000), 48-55.

KRAUTHEIMER, RICHARD, *Corpus Basilicarum Christianarum Romae*, vol. 4, (Città del Vaticano: Pontificio Istituto di Archeologia Cristiana, 1970).

LANGDON, HELEN, *Caravaggio: A Life*, (London: Pimlico Press, 1999).

LANGMUIR, ERIKA, *National Gallery Companion Guide*, (London: National Gallery Publications, 1994).

LATES, ADRIENNE VON, 'Caravaggio's Peaches and Academic Puns', *Words & Image*, 11/1, (1995), 55-60.

LAVIN, IRVING, 'Divine Inspiration in Caravaggio's Two St Matthews', *The Art Bulletin*, 56/1, (1974), 59-81.

LE BRUN, 'Lecture on Expression' [Paris: 1688], in Jennifer Montague, *The Expression of the Passions, the Origin and Influence of Charles Le Brun's Conférence sur l'Expression Générale et Particulière*, (New Haven: Yale University Press, 1994), 126-40.

LEONARDO DA VINCI, *On Painting: An Anthology of Writing*, trans. Martin Kemp (ed.) and Margaret Walker, (New Haven: Yale University Press, 1989).

LOH, MARIA, 'New and Improved: Repetition as Originality in Italian Baroque Practice and Theory', *Art Bulletin*, 86/3, (2004), 477-504.

LOMAZZO, GIOVANNI PAOLO, *Trattato dell' Arte de la Pittura*, [Milan: 1584], (Hildesheim: Georg Olms Verlagsbuchhandlung, 1968).

---, Rabisch dra Academiglia dor Compà Zavargna, nabad dra vall d'Bregn, ed tuchh i sù fidigl sohit, con rà ricenciglia dra Valada, [1577], (Milan: 1627).

MAHON, DENIS, 'Egregius in Urbe Pictor: Caravaggio Revised', *The Burlington Magazine*, 93/580, (1951), 223-235.

---, 'Caravaggio's Chronology Again', *The Burlington Magazine*, 93/582, (1951), 286-292.

---, *Studies in Seicento Art and Theory*, (Westport, Conn.: Greenwood Press, 1971).

MANCINI, GIULIO, *Considerazioni sulla Pittura*, 2 vols., ed. Adriana Marucchi, (Rome: Accademia Nazionale dei Lincei, 1957).

---, *Considerazioni sulla Pittura*, [Rome: Accademia Nazionale dei Lincei, 1957], reproduced and trans. Hibbard, *Caravaggio*, 346-51.

MANDER, CAREL VAN, *Het Schilder-Boeck...*, (Harleem: Passchier van Wesbusch, 1604).

---, *Het Schilder-Boeck...*, [Harleem: Passchier van Wesbusch, 1604], reproduced and trans. Hibbard, *Caravaggio*, 343-5.

MALLGRAVE, HARRY (ed.), *Empathy Form and Space. Problems in German Aesthetics 1873-1893*, (Santa Monica: Getty Center for the History of Art and the Humanities, 1994).

MARINI, MAURIZIO, *Io Michelangelo da Caravaggio*, (Rome: Studio 'B' di Bestetti e Bozzi, 1974).

MARTIN, GREGORY, *Roma Sancta*, [1581], ed. George Bruner Parks, (Rome: Edizioni di Storia e Letteratura, 1969), 131.

MARTIN, JOHN, 'Inventing Sincerity, Refashioning Prudence: The Discovery of the Individual in Renaissance Europe', *The American Historical Review*, 102/5 (1997), 1309-1342.

MARTIN, JOHN RUPERT, *The Farnese Gallery*, (Princeton: Princeton University Press, 1965).

MCGINNESS, FREDERICK, *Right Thinking and Sacred Oratory in Counter-Reformation Rome*, (Princeton: Princeton University Press, 1995).

MCNALLY, ROBERT, 'The Council of Trent, the Spiritual Exercises and the Catholic Reform', *Church History*, 34/1, (1965), 36-49.

MISSIRNI, MELCHIOR, *Memorie per servire alla storia della Romana Accademia di S.Luca fino al morte di Antonio Canova*, (Rome: 1823).

MITTER, PARTHA, 'A Short Commentary on 'the Science of Art'', *Journal of Consciousness Studies*, 6/6-7, (1999), 64-5.

MOFFITT, JOHN, *Caravaggio in Context, Learned Naturalism and Renaissance Humanism*, (London: McFarland & Company, 2004), 187-203.

MOIR, ALFRED, *The Italian Followers of Caravaggio*, 2 vols., (Cambridge, Mass.: Harvard University Press, 1967).

MONTAIGNE, MICHEL DE, *The Complete Works*, trans. Donald Frame, (London: Everyman's Library, 2003).

MOORE, DAVID, *The Dependent Gene, The Fallacy of 'Nature vs. Nurture'*, New York: Times Books, 2001).

MORENO, PAOLO and STEFANI, CHIARA, (eds.), *The Borghese Gallery*, (Milan: Touring Club Italiano, 2000).

NANCARROW, MINDY, 'The 17th-Century "Vida": Producing Sanctity with Words and Images', *Woman's Art Journal*, 25/1, 2004, 32-8.

NELSON, CHARLES, 'Neural Plasticity and Human Development', *Current Directions in Psychological Science*, 8/2, (1999), 42-5.

NEIDICH, WARREN, *Blow-Up: Photography, Cinema and the Brain*, (New York: Distributed Art Publishers, 2003).

NICHOLSON, BENEDICT, *The International Caravaggesque Movement*, (Oxford: Phaidon, 1979)

NORMAN, LARRY, *The Theatrical Baroque*, (Chicago: The David and Alfred Smart Museum of Art and the University of Chicago, 2001).

NUSSDORFER, LAURIE, 'The Vacant See: Ritual and Protest in Early Modern Rome', *Sixteenth Century Journal*, 18/2, (1987), 173-189.

OBERHUBER, KONRAD, *Raphael: The Paintings*, (Munich: Prestel, 1999).

OLDANI, LOUIS, *An Introduction to Jesuit Theatre*, (St Louis: Institute of Jesuit Sources, 1983).

OLMI, GIUSEPPE, 'Science- Honour- Metaphor: Italian Cabinets of the Sixteenth and Seventeenth Centuries', in Oliver Impey and Arthur Macgregor (eds.), *The Origins of Museums*, (Oxford: Clarendon Press, 1985), 5-16.

O'MALLEY, MICHELLE and WELCH, EVELYN (eds.), *The Material Renaissance*, (Manchester: Manchester University Press, 2007)

ONIANS, JOHN, 'The Origins of Art', *Art History*, 1/1, (1978), 1-2, 11-7 and 20-2.

---, *Bearers of Meaning, The Classical Orders in Antiquity, the Middle Ages, and the Renaissance*, (Princeton: Princeton University Press, 1988).

---, 'I wonder...': A short History of Amazement', in *Sight and Insight; Essays on Art and Culture in Honour of E. H. Gombrich at 85* (London: Phaidon Press, 1994), 11-34.

---, 'World Art Studies and the Need for a new Natural History of Art', *Art Bulletin*, 78/2, (1996), 206-9.

---, 'The Biological Basis of Renaissance Aesthetics', in Francis Ames-Lewis and Mary Rogers (eds.), *Concepts of Beauty in Renaissance Art*, (Aldershot: Ashgate, 1998), 12-27.

---, 'The Nature of Art in Lin Fengmian's China', in *The Centenary of Lin Fengmian*, (Shanghai: 1999), 690-715.

---, 'Architecture and Painting: the Biological Connection', in Christy Anderson (ed.), *The Built Surface*, vol. 1, (Architecture and the Pictorial Arts from Antiquity to the Enlightenment; London: Ashgate, 2002), 1-14.

---, 'A Natural Anthropology of Art', *International Journal of Anthropology*, 18, (2003), 259-264.

---, 'Gombrich and Biology', in Paula Lizarraga (ed.), *E.H. Gombrich in Memoriam*, (Pamplona: Ediciones Universidad de Navarra, 2003), 95-119.

---, 'Inside the Brain: Looking for the Foundations of Art History', in Margaretha Rossholm Lagerlöf and Dan Karlholm (eds.), *Subjectivity and Methodology in Art History*, (Stockholm: University of Stockholm, 2003), 125-138.

---, (ed.), *Atlas of World Art*, (London: Laurence King Publishing, 2004).

---, 'Michael Baxandall's "Period Eye": From Social Art History to Neuroarthistory', *Quintana*, 4, (2005), 109-114.

---, *Neuroarthistory*, (New Haven: Yale University Press, 2007).

---, 'Neuroarchaeology and the Origins of Representation in the Grotte de Chauvet', in Colin Renfrew and Iain Morley (eds.), *Image and Imagination; A Global History of Figurative Representation*, (Cambridge: Cambridge University Press, 2007), 307-320 at 307.

---, 'Understanding Art Worldwide: the Need to Take More Account of Nature. Or the 'autonomy of culture' delusion' paper given at the conference *Ways Forward*, The University of East Anglia, Norwich, 08.11.2007.

---, 'Neuroarthistory as the New Art History', paper given at *Intersections*, the 35th Annual Conference of the Association of Art Historians, Manchester, 03.04.2009.

OPPÉ, ADOLF PAUL, *Raphael*, (London: Methuen and Co., 1909).

ORBAN, GUY and VANDUFFEL, WIM, 'Functional Mapping of the Motion Regions', in Leo Chalupa and John Werner eds., *The Visual Neurosciences*, vol. 2, (Cambridge, Mass.: MIT, 2004), 1229-46.

OSTROW, STEVEN, *Art and Spirituality in Counter-Reformation Rome*, (Cambridge: Cambridge University Press, 1996).

PALEOTTI, GABRIELE, *Discorso Intorno alle Imagini Sacre et Profane*, [Bologna, 1582], in Paola Barocchi (ed.), *Trattati d'Arte del Cinquecento*, vol. 2, (Bari: Laterza, 1961), 119-509.

PARTNER, PETER, *Renaissance Rome, 1500-1559, A Portrait of a Society*, (Berkley: University of California Press, 1979).

PASTOR, LUDWIG, *The History of the Popes*, vol. 24, (London: Routledge and Kegan Paul, 1952).

PELLEGRINO, GIUSEPPE DI et al., 'Understanding motor events: a neurophysiological study', *Experimental Brain Research*, 91, (1992), 176-180.

PEVSNER, NIKOLAUS, *Academies of Art Past and Present*, (New York: Da Capo Press, 1973).

PLINY THE ELDER, *The Elder Pliny's Chapters on the History of Art*, trans. Katharine Jex-Blake, (Chicago: Argonaut, 1968).

PUGLISI, CATHERINE, *Caravaggio*, (London: Phaidon, 1998).

PULLAPILLY, CYRIAC, *Caesar Baronius Counter-Reformation Historian*, (Notre Dame, Indiana: University of Notre Dame Press, 1975).

PURVES, DALE, et al. (eds.), *Neuroscience*, (Sunderland, Mass.: Sinauer, 2004).

QUICCHEBERG, SAMUEL Á, 'Samuel á Quiccheberg's third and fourth Classes', [*Inscriptiones Vel Tituli Theatri Amplissimi*, Munich: 1565]', in Susan Pearce and Kenneth Arnold (eds.), *The Collector's Voice: Early Voices*, vol. 2, (Aldershot: Ashgate, 2000).

QUINTILIAN, *The Institutio Oratoria of Quintilian*, trans. Harold Edgeworth Butler, (The Loeb Classical Library, London: William Heinemann Ltd., 1921).

RAGERT, PATRICK et al., 'Superior Tactile Performance and Learning in Professional Pianists: Evidence for Meta-Plasticity in Musicians', *European Journal of Neuroscience*, 19, (2004), 473-8.

RAMACHANDRAN, VILAYANUR and HIRSTEIN, WILLIAM, 'The Science of Art, A Neurological Theory of Aesthetic Experience', *Journal of Consciousness Studies*, 6/6-7, (1999).

RICCI, CORRADO, *Beatrice Cenci*, (Milano: Fratelli Treves, 1925).

RIZZOLATTO, GIACOMO et al., 'Functional Organization of Inferior Area 6 in the Macaque Monkey: II Area F5 and the Control of Distal Movements', *Experimental Brain Research*, 71/3, (1988), 491-507.

---, 'Premotor Cortex and the Recognition of Motor Actions', *Cognitive Brain Research*, 3, (1996), 131-141.

---, 'Language Within our Grasp', *Trends in Neuroscience*, 21, (1998), 188-94.

---, 'Resonance behaviours and Mirror Neurons', *Archives Italiennes de Biologie*, 137, (1999), 85-100.

ROELE, MARCEL and WIND, JAN, 'Sociobiology and the Arts. An Introduction', in Bedaux and Cooke (eds.), *Sociobiology*, 9-26.

RÖTTGEN, HERWARTH, 'Il Cavaliere Giuseppe Cesari d'Arpino', in *Il Cavalier d'Arpino*, (Rome: De Luca Editore, 1973), 19-57.

SALES, FRANCIS DE, *Introduction to the Devout Life*, trans. John Kenneth Ryan, (New York: Harper & Row, 1966).

SALERNO, LUIGI, 'The Roman World of Caravaggio: His Admirers and Patrons', *The Age of Caravaggio*, (New York: The Metropolitan Museum of Art, 1985), 17-21.

---, 'The Picture Gallery of Vincenzo Giustiniani I: Introduction', *The Burlington Magazine*, 102/682, (1960), 21-27.

---, 'The Picture Gallery of Vincenzo Giustiniani II: Inventory, Part I', *The Burlington Magazine*, 102/684, (1960), 92-105.

---, 'The Picture Gallery of Vincenzo Giustiniani III: The Inventory, Part II', *The Burlington Magazine*, 102/685, (1960), 135-59.

SAMUELS, RICHARD, 'Innateness in Cognitive Science', *Trends in Cognitive Sciences*, 8/3, (2004), 136-41.

SAN JUAN, ROSE MARIE, *Rome A City Out of Print*, (Minneapolis: University of Minnesota Press, 2001), 1-21.

SANDRART, JOACHIM VON, *Joachim von Sandrart's Academie der Bau-, Bild- und Mahlerey-Künste von 1675*, (Nürnberg: 1675).

---, *Joachim von Sandrart's Academie der Bau-, Bild- und Mahlerey-Künste von 1675*, [Nürnberg: 1675], reproduced and trans. Hibbard, *Caravaggio*, 375-80.

SAPER, CLIFFORD, IVERSEN, SUSAN and FRACKOWIAK RICHARD, 'Integration of Sensory and Motor Function: The Association Areas of the Cerebral Cortex and the Cognitive Capabilities of the Brain', in Kandel, Schwartz and Jessell (eds.), *Principles of Neural Science*, 349-80.

SCANNELLI, FRANCESCO, *Il Microcosmo della Pittura*, (Cesena: Peril Neri, 1657).

---, *Il Microcosmo della Pittura*, [Cesena: Peril Neri, 1657], reproduced and trans. Hibbard, *Caravaggio*, 356-60.

SCUPOLI, LORENZO, *The Spiritual Combat*, trans. William Lester and Robert Mohan, (Rockford, Illinois: Tan Books and Publishers, 1945).

SEGALL, MARSHALL, CAMPBELL, DONALD, and HERSKOVITS, MELVILLE, *The Influence of Culture on Visual Perception*, (Indianapolis: Bobbs Merrill, 1966).

SELLA, DOMENICO, *Italy in the Seventeenth Century*, (London: Longman, 1997).

SHEARMAN, JOHN, *Mannerism*, (London: Penguin Books, 1967).

---, *Only Connect... Art and the Spectator in the Italian Renaissance*, (The A. W. Mellon Lectures at The National Gallery of Art, Washington: Princeton University Press, 1992).

SMITH, PAMELA, 'Artists as Scientists: Nature and Realism in Early Modern Europe', *Endeavour*, 24, (2000), 13-21.

SOANES, CATHERINE and STEVENSON, ANGUS (eds.), *The Oxford Dictionary of English* (revised edition), (Oxford: Oxford University Press, 2005), *Oxford Reference Online*, Oxford University Press. University of East Anglia, 22.04.2009, <<http://www.oxfordreference.com>>.

SOHM, PHILIP, 'Caravaggio's Deaths', *The Art Bulletin*, 84/3, (2002), 449-468.

SONNINO, EUGENIO, 'The Population in Baroque Rome', in Kessel and Schulte (eds.), *Rome Amsterdam*, 50-70.

SPEAR, RICHARD, *Caravaggio and His Followers*, (Cleveland: The Cleveland Museum of Art, 1971).

---, *From Caravaggio to Artemisia, Essays on Painting in Seventeenth-Century Italy and France*, (London: The Pindar Press, 2002).

---, 'Scrambling for *Scudi*: Notes on Painters' Earnings in Early Baroque Rome', *The Art Bulletin*, 85, (2003), 310-19.

SPEZZAFERRO, LUIGI, 'Baroque Rome: a 'Modern City'', in Kessel and Schulte (eds.), *Rome Amsterdam*, 2-12.

SPIKE, JOHN, *Caravaggio*, (London: Abbeville Press Publishers, 2001).

STAFFORD, BARBARA MARIA, *Visual Analogy, Consciousness as the Art of Connecting*, (Cambridge, Mass.: MIT, 1999).

---, *Echo Objects, The Cognitive Work of Images*, (Chicago: University of Chicago Press, 2007).

STEINBERG, LEO, *Michelangelo's Last Paintings: the Conversion of St. Paul and the Crucifixion of St. Peter in the Cappella Paolina*, (London: Phaidon, 1975),

STILES, JOAN, *The Fundamentals of Brain Development, Integrating Nature and Nurture*, (Cambridge, Mass.: Harvard University Press, 2008).

STOREY, TESSA, *Carnal Commerce in Counter-Reformation Rome*, (Cambridge: Cambridge University Press, 2008).

TANAKA, KEIJI, 'Neuronal Mechanisms of Object Recognition', *Science*, 262, (1993), 685-8.

---, 'Mechanisms of Visual Object Recognition: Monkey and Human Studies', *Current Opinion in Neurobiology*, 7, (1997), 523-9.

TERESA OF AVILA, ST, *The Life of Saint Teresa Of Avila by Herself*, trans. John Michael Cohen, (Harmondsworth: Penguin, 1957),

TESSIER-LAVIGNE, MARC, 'Visual Processing by the Retina', in Kandel, Schwartz and Jessell (eds.), *Principles of Neural Science*, 507-22.

THOMAS, TROY, 'Expressive aspects of Caravaggio's first St Matthew', *The Art Bulletin*, 67/4, (1985), 636-52.

VALONE, CAROLYN, 'Women on the Quirinal Hill: Patronage in Rome 1560-1630', *The Art Bulletin*, 76/1, 1994, 129-46.

---, 'The Pentecost: Image and Experience in Late Sixteenth-Century Rome', *The Sixteenth century Journal*, 24/4, 1993, 801-28.

VARRIANO, JOHN, *Caravaggio, The Art of Realism*, (Pennsylvania, Pennsylvania University Press, 2006).

---, 'Fruits and Vegetables as Sexual Metaphor in Late Renaissance Rome', *Gastronomica: The Journal of Food and Culture*, 5/4, (2005), 8-14.

VASARI, GIORGIO, *Lives of the Artists*, [1550], vol. 1, trans. George Bull, (London: Penguin Books, 1987).

VENTURI, LIONELLO, *Il Caravaggio*, (Novara: Istituto geografico de Agostini, 1951).

---, *Botticelli*, (London: Phaidon, 1961).

VISCHER, FRIEDRICH THEODOR, ‘Critique of My Aesthetics’, [1866] in Charles Harrison, Paul Wood and Jason Gaiger (eds.), *Art in Theory: 1815-1900*, (Oxford: Blackwell Publishing, 1998), 687-8.

VISCHER, ROBERT, ‘The Aesthetic Act and Pure Form’, [1873] in Charles Harrison, Paul Wood and Jason Gaiger (eds.), *Art in Theory: 1815-1900*, (Oxford: Blackwell Publishing, 1998), 690-3.

VOELKER, CECILIA, ‘Borromeo’s Influence on Sacred Art and Architecture’, in John Headly and John Tomaro (eds.), *San Carlo Borromeo, Catholic Reform and Ecclesiastical Politics in the Second Half of the Sixteenth Century*, (London: Folger Books, 1988).

VOSS, HERMANN, *Baroque Painting in Rome*, [1925], rev. and trans. Thomas Pelzel, (San Francisco: Alan Wofsy Fine Arts, 1997).

WARWICK, GENEVIEVE, ‘Speaking Statues: Bernini’s *Apollo and Daphne* at the Villa Borghese’, *Art History*, 27/3, (2004), 353-381.

WATERHOUSE, ELLIS, *Italian Baroque Painting*, (London: Phaidon, 1962).

WELCH, EVELYN, *Shopping in the Renaissance*, (New Haven: Yale University Press, 2005).

WICKER, BRUNO, et al., ‘Both of Us Disgusted in *My Insula*, the Common Neural Basis of Seeing and Feeling Disgust’, *Neuron*, 40/3, (2003), 655-664.

WILKINS SULLIVAN, RUTH, ‘Saints Peter and Paul: Some Ironic Aspects of their Imaging’, *Art History*, 17/1, (1994), 59-80.

WILSON-SMITH, TIMOTHY, *Caravaggio*, (London: Phaidon, 1998).

WITTKOWER, RUDOLPH, *Art and Architecture in Italy 1600-1750*, (Pelican History of Art Series: New Haven: Yale University Press, 1958).

WISCH, BARBARA, ‘The Passion of Christ in the art Theatre and Penitential Rituals of the Roman Confraternity of the Gonfalone’ in *Crossing the Boundaries*, Konrad Eisenbichler (ed.), (Western Michigan University, Michigan: Medieval Institute Publications, 1991), 237-262.

WOLF, GERHARD, *Salus Populi Romani, Die Geschichte Römischer Kultbilder im Mittelalter*, (Weinheim: Acta Humaniora, 1990).

---, 'Icons and Sites. Cult Images of the Virgin in Mediaeval Rome', in Maria Vassilaki (ed.), *Images of the Mother of God; Perceptions of the Theotokos in Byzantium*, (Aldershot: Ashgate, 2005).

WÖLFFLIN, HEINRICH, 'Prologomena to a Psychology of Architecture', [1886] in Charles Harrison, Paul Wood and Jason Gaiger (eds.), *Art in Theory: 1815-1900*, (Oxford: Blackwell Publishing, 1998), 711-17.

---, *Principles of Art History: the Development of Style in Later Art*, [1932], (New York: Dover Publications, 1950).

WRIGHT, GEORGIA, 'Caravaggio's Entombment considered in Situ', *Art Bulletin*, 60/1, (1978), 35-42.

WURTZ, ROBERT and KANDEL, ERIC, 'Central Visual Pathways', in Kandel, Schwartz and Jessell (eds.), *Principles of Neural Science*, 523-5.

--- and ---, 'Perception of Motion, Depth and Form', in Kandel, Schwartz and Jessell (eds.), *Principles of Neural Science*, 548-9.

XENOPHON, *Memorabilia*, book 3, trans. Edgar Cardew Marchant, (The Loeb Classical Library, London: William Heinemann Ltd., 1926).

ZEKI, SEMIR, *Inner Vision; an Exploration of Art and the Brain*, (Oxford: Oxford University Press, 1999).

---, 'Art and the Brain', *Journal of Consciousness Studies*, 6/6-7, (1999).

---, 'Neural Concept Formation & Art, Dante, Michelangelo, Wagner', *Journal of Consciousness Studies*, 9/3, (2002), 53-76.

ZERI, FEDERICO, *Pittura e Controriforma: L'arte senza Tempo di Scipione da Gaeta*, (Turin: Giulio Einaudi, 1957).

ZUCCARI, ALESSANDRO, 'Cultura e predicazione nelle immagini dell'Oratorio', *Storia dell'Arte*, 85, (1995), 340-54.

APPENDIX 1

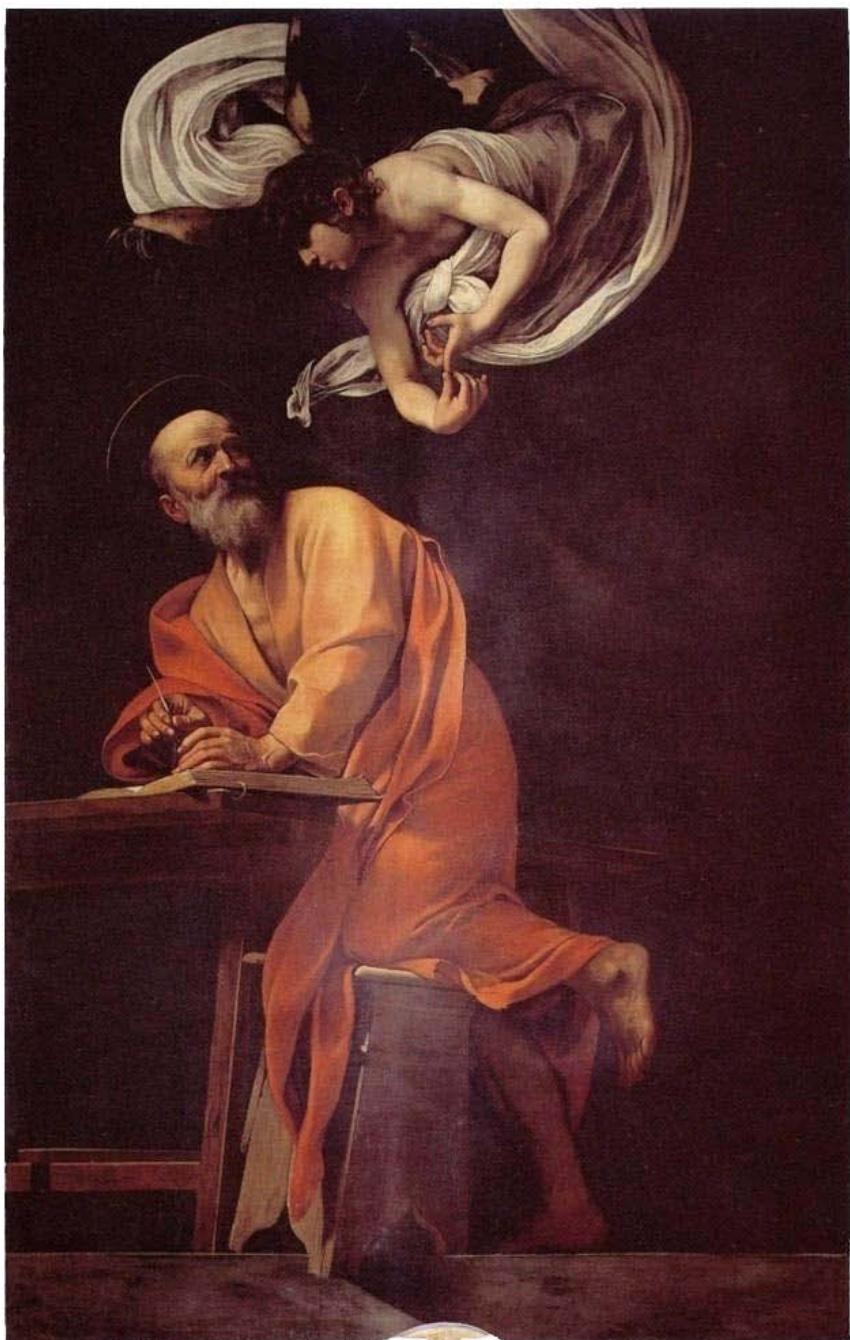
Giovanni Paolo Lomazzo, *Trattato dell' Arte de la Pittura*, [Milan: 1584], (Hildesheim: Georg Olms Verlagsbuchhandlung, 1968), 105.

‘Perchio che, si come naturalmente uno che rida, o pianga, o faccia altro effetto, muoue per il piu gl'altri che lo veggono al medesimo affetto d'allegrezza o di dolore onde diceua colui, si vis me flere dolendum est primum ipsi tibi, tunc tua me infortunia ledent; cosi & non altrimenti una pittura rappresentata come dianci diceua con moti al-naturale ritratti fara senza dubbio ridere, con che ride pensare con chi pensa, ramaricarsi, con chi piange, rallegrarsi, & gioire con chi s'allegria; & oltre di cio marauigliarsi con chi si marauiglia, desiderare une bella giouane per moglie vedendone una ignuda, com patire con chi s'affliga, & anco in pigliar di mangiare vedendo chi mangi di pretiosi, & delicati cibi, cader di sono vedendo chi dol cemente dorma, commouersi ne l'animo, & quasi entrar in furore con quelli che si veggono combattere animosamente in battaglia, espressi co' i propri, & conuenti moti, mouersi a sdegno, & a stomaco di quelli da veggono fare cosa lorda & dishonesta, & simili altri effettii infiniti.’

ILLUSTRATIONS



1. *The Calling of St Matthew.*



2. *St Matthew and the Angel.*



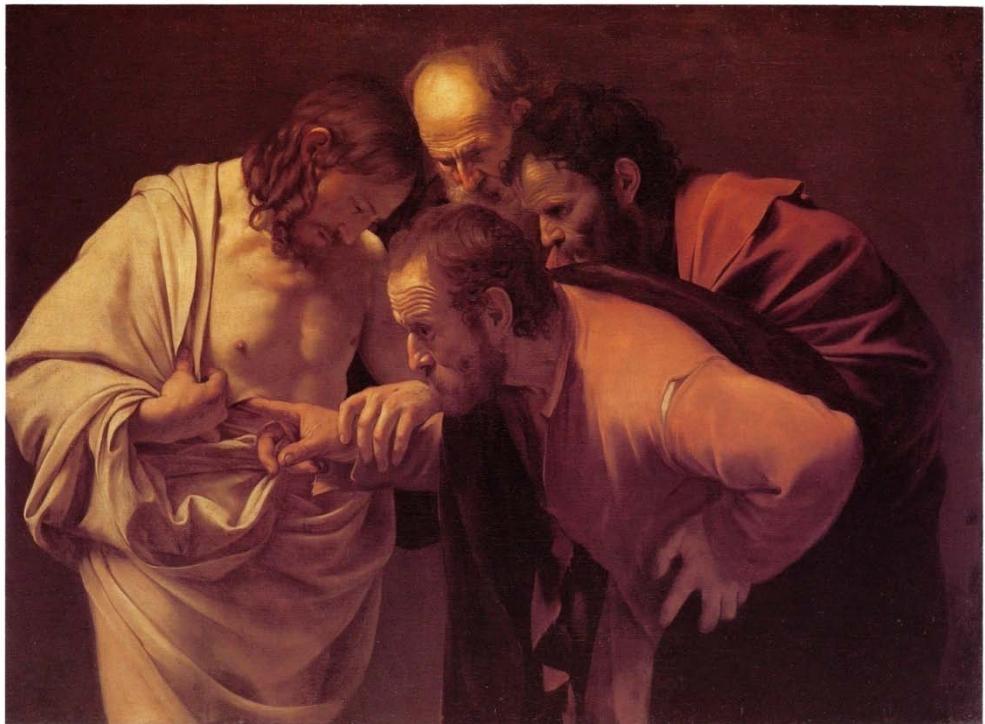
3. *The Martyrdom of St Matthew.*



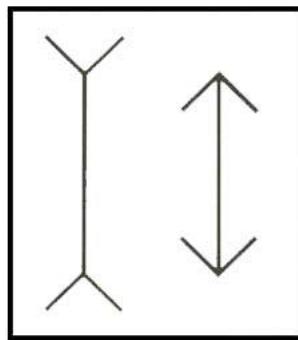
4. *Boy Bitten by a Lizard.*



5. *Madonna di Loreto.*



6. Doubting Thomas.



7. The Müller-Lyer illusion with representations of how it is seen in buildings. The first part of the illusion looks longer as it is associated with the furthest part of, for example, a room. The second part seems shorter because it is associated with the closest part of, for example, a building. This is equally true of other rectangular objects such as tables and boxes.



8. *Que Hay Que Hacer Mas?*, Goya.



9. Judith Beheading Holofernes.



10. *Judith Beheading Holofernes*, Artemisia Gentileschi.



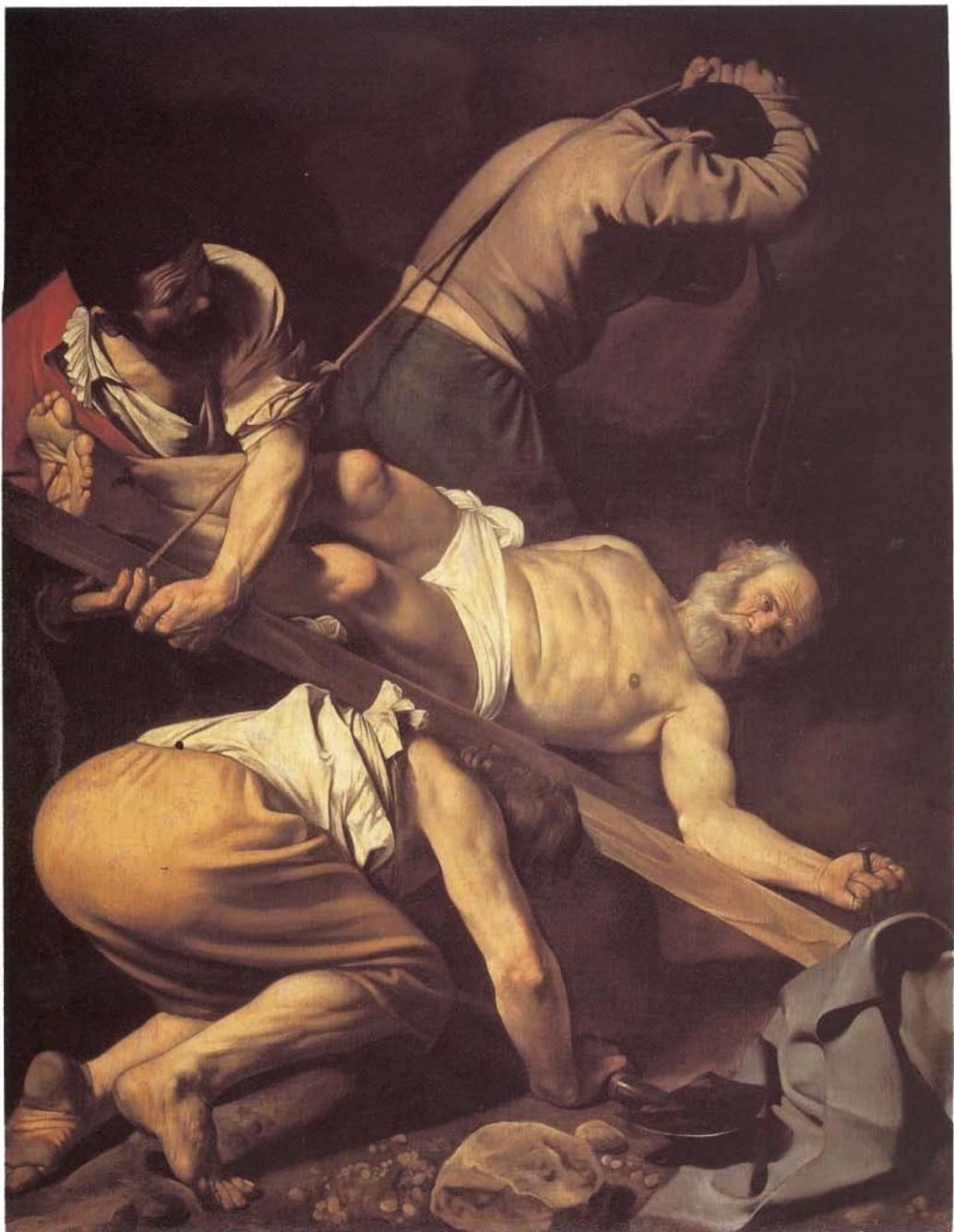
11. *Judith Beheading Holofernes*, Artemisia Gentileschi.



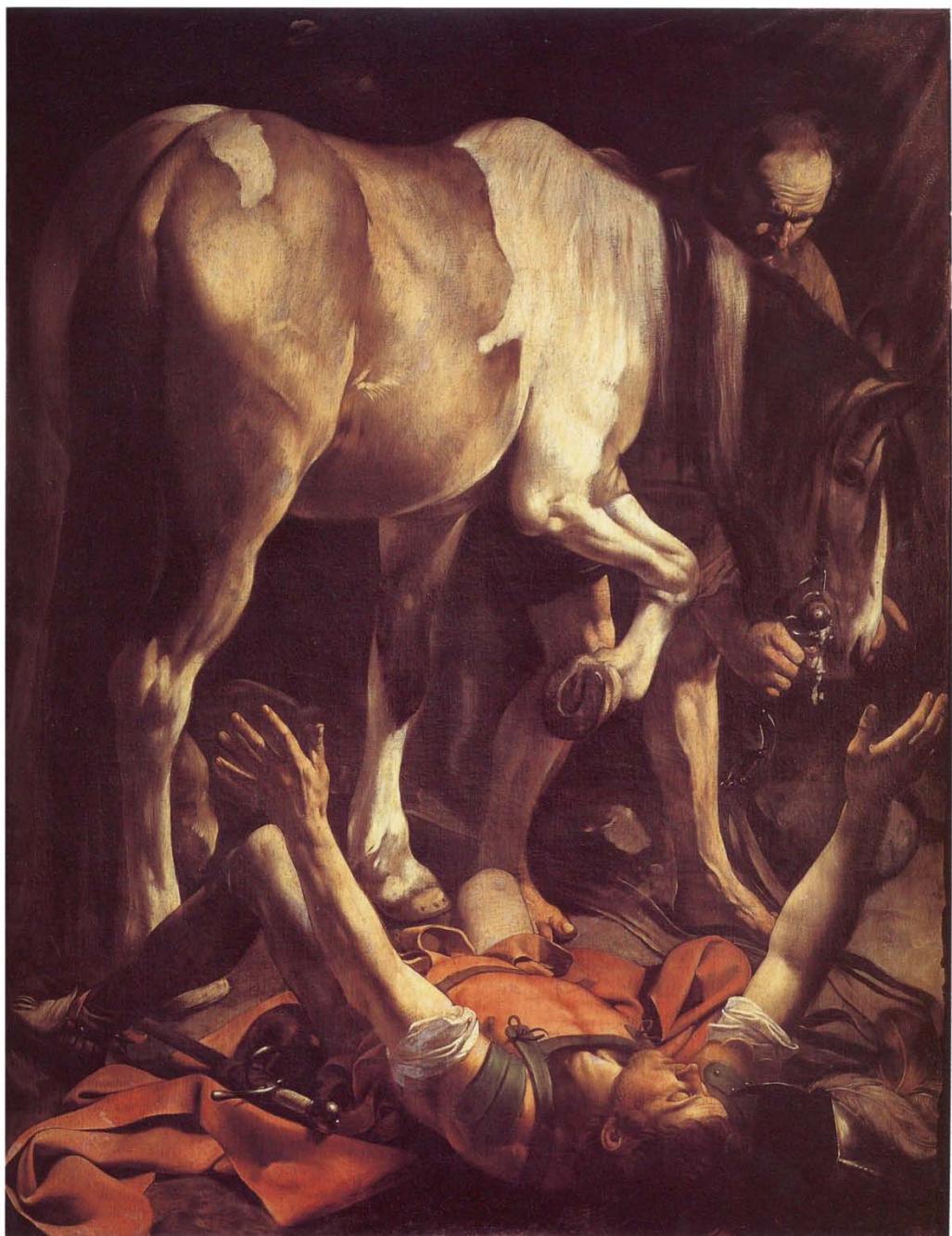
12. *Victorious Cupid*.



13. *St Matthew and the Angel.*



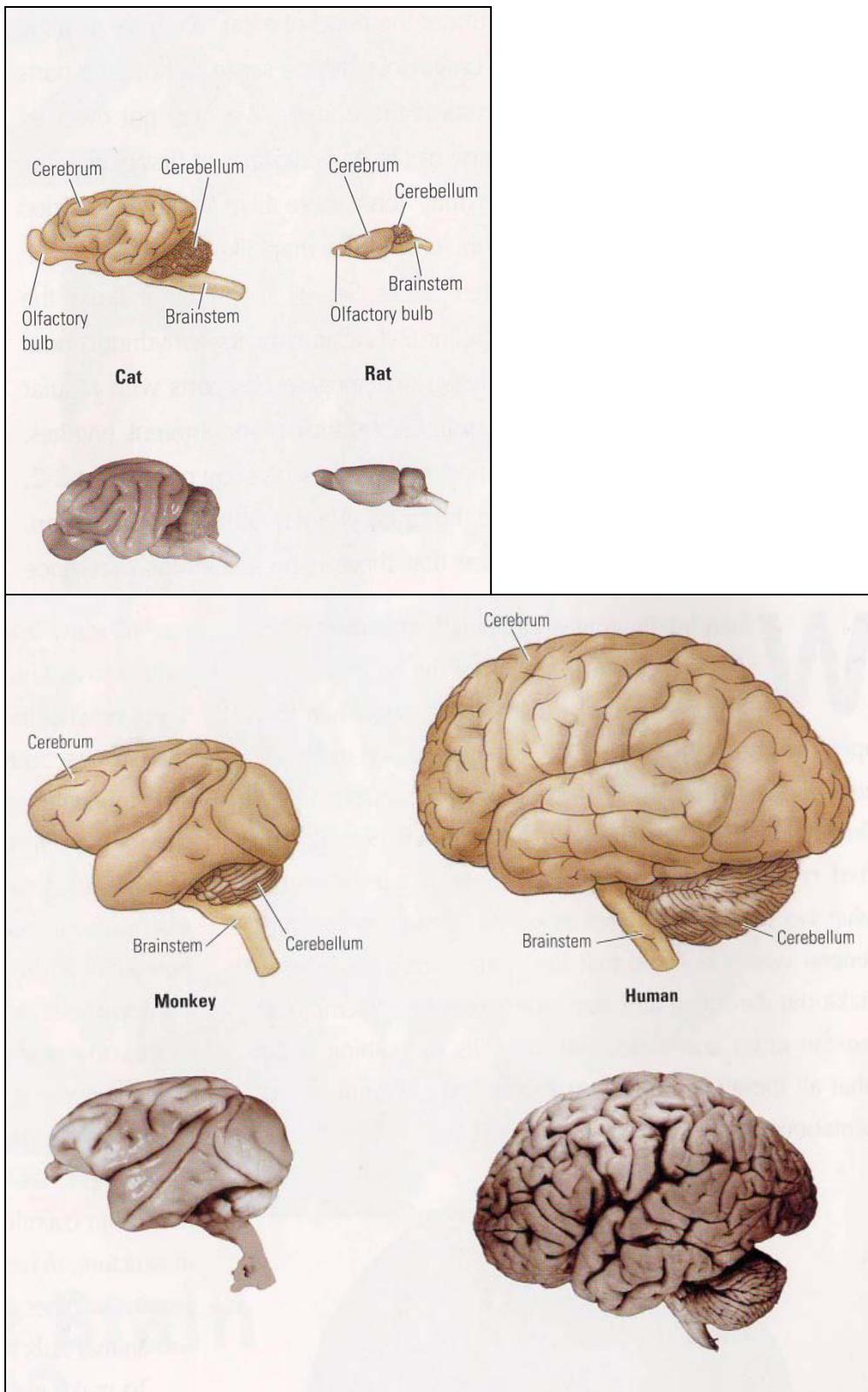
14. *The Crucifixion of St Peter.*



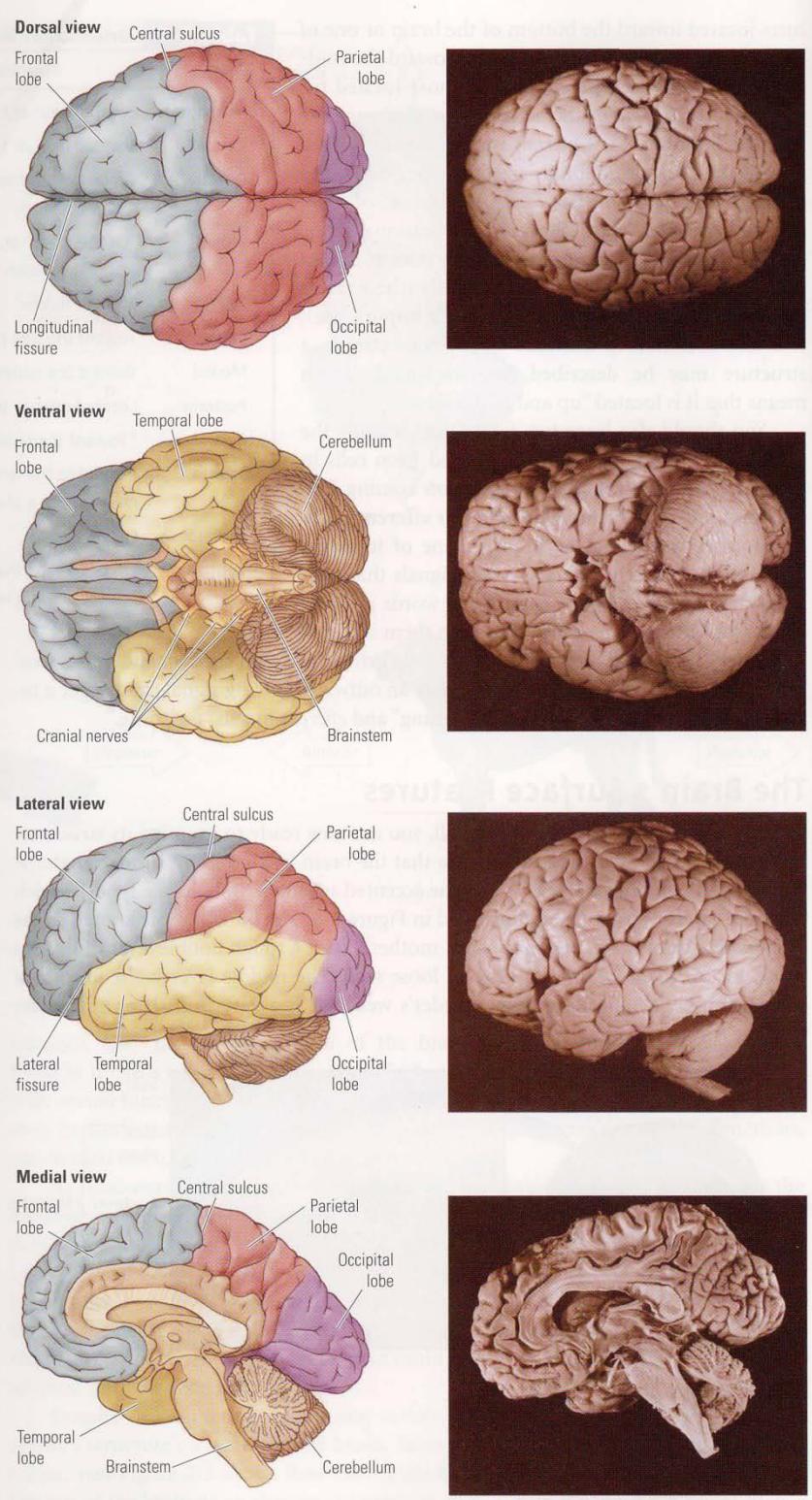
15. *The Conversion of St Paul.*



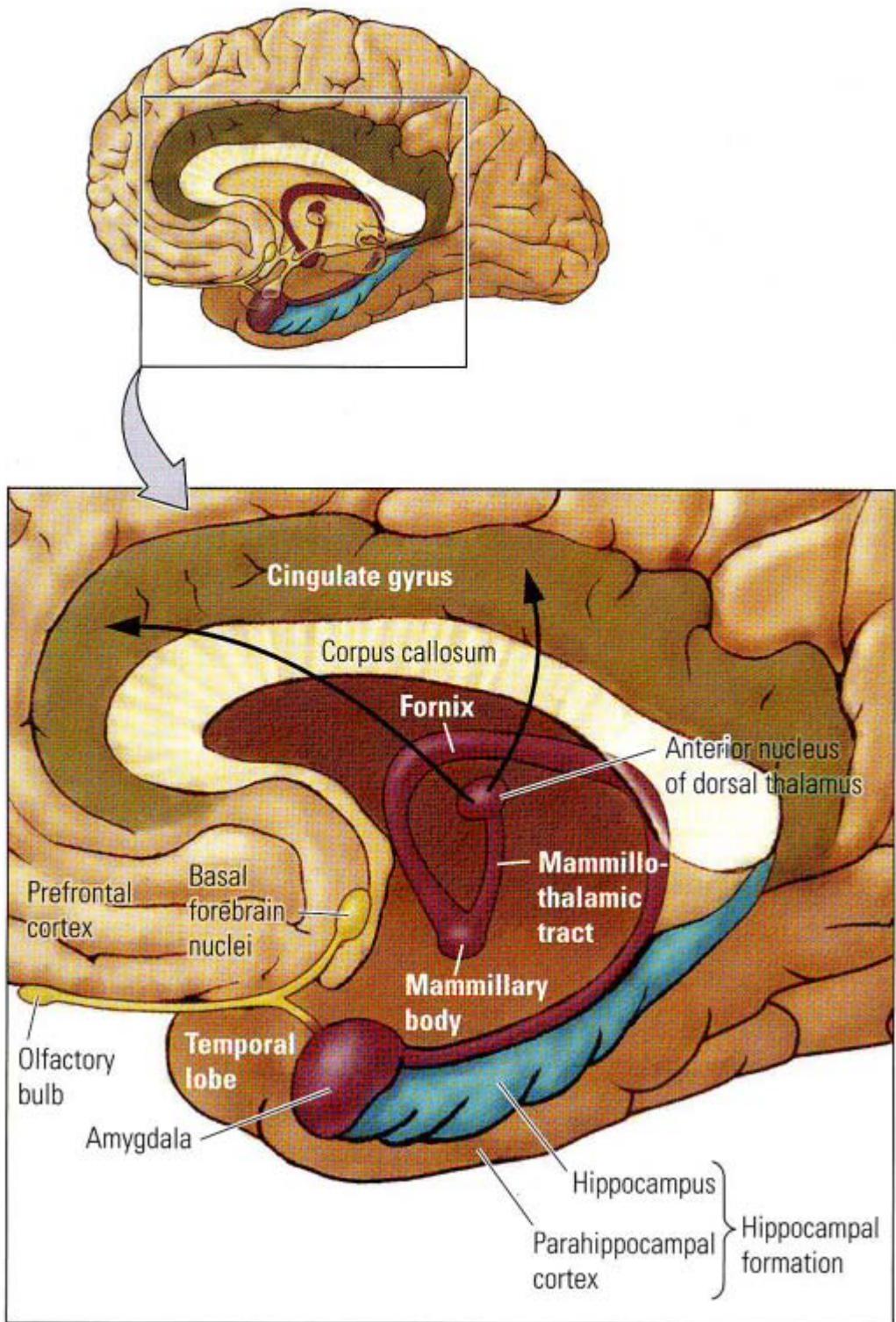
16. *The Entombment.*



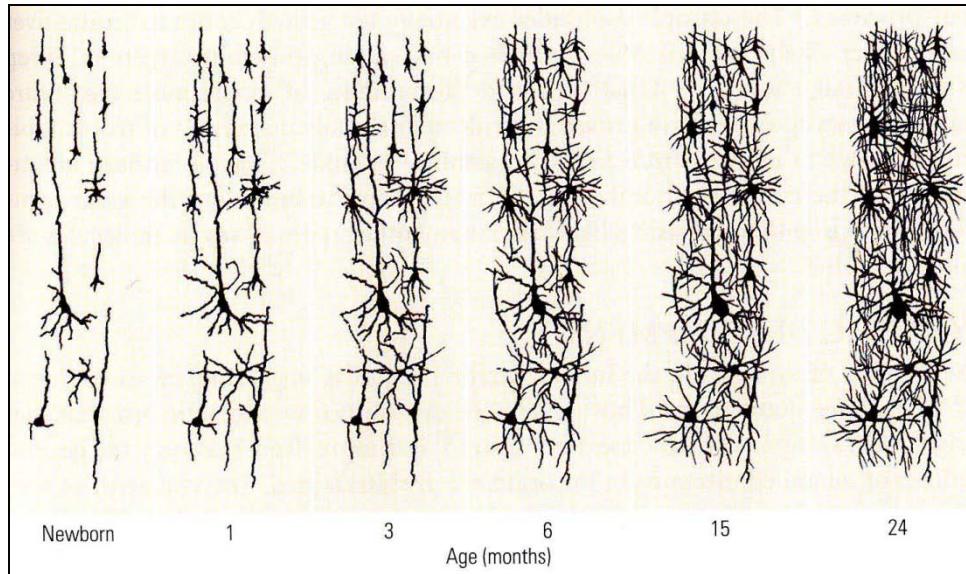
17. The nervous systems of a cat, rat, monkey and human.



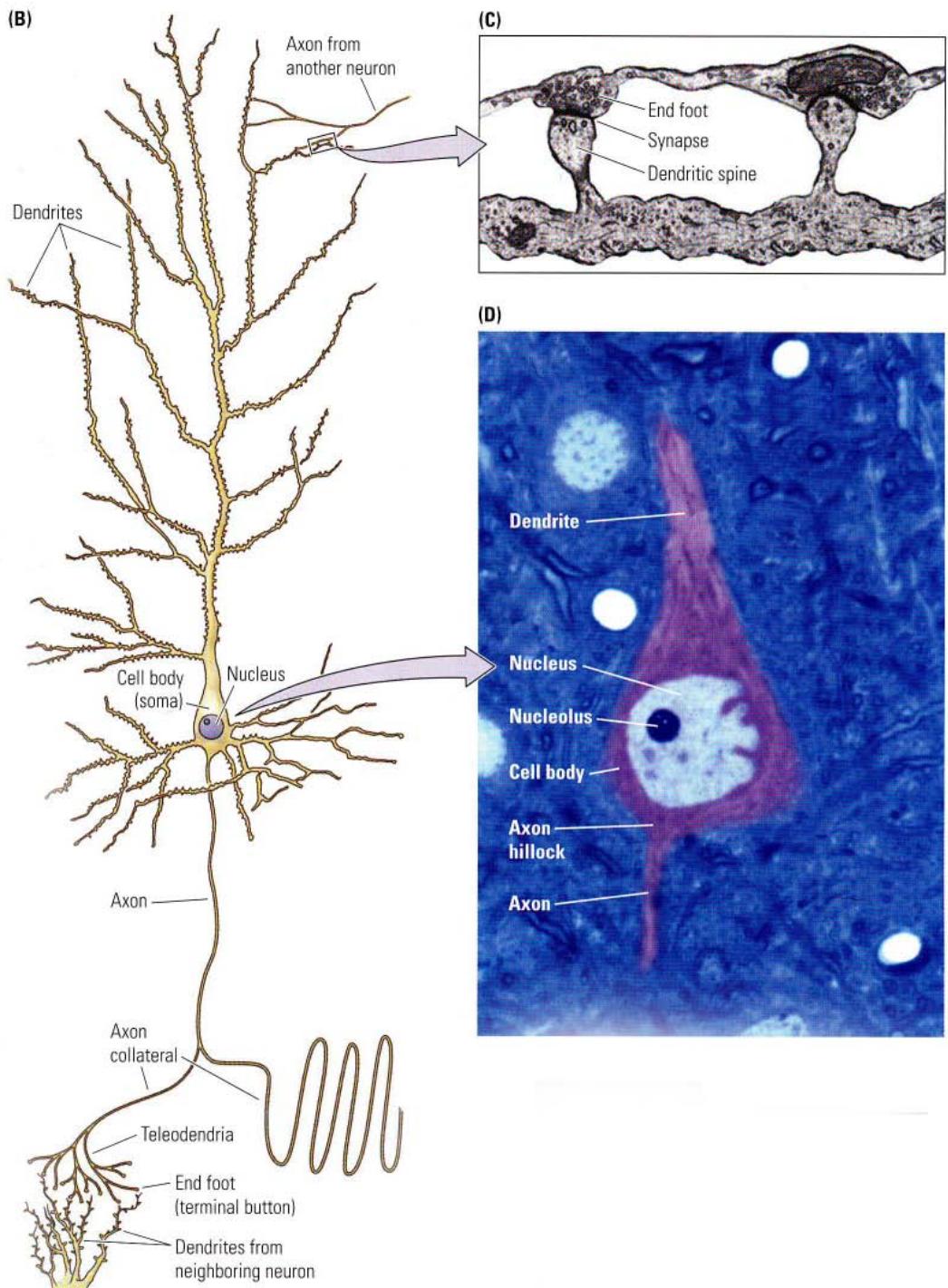
18. Views of the human brain.



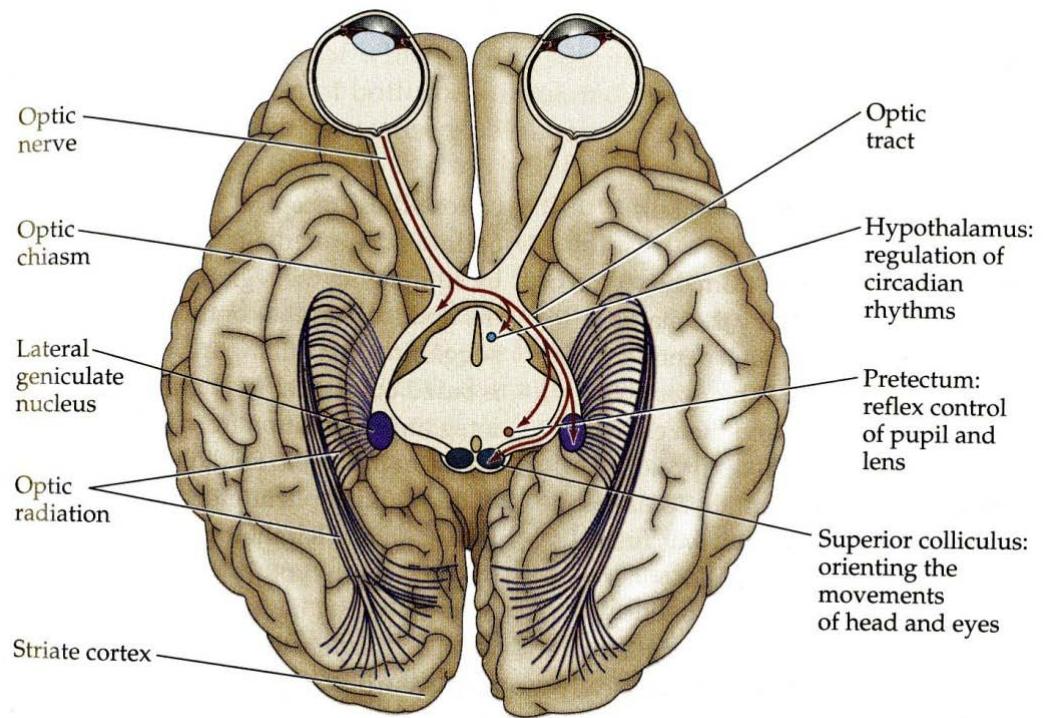
19. The limbic system.



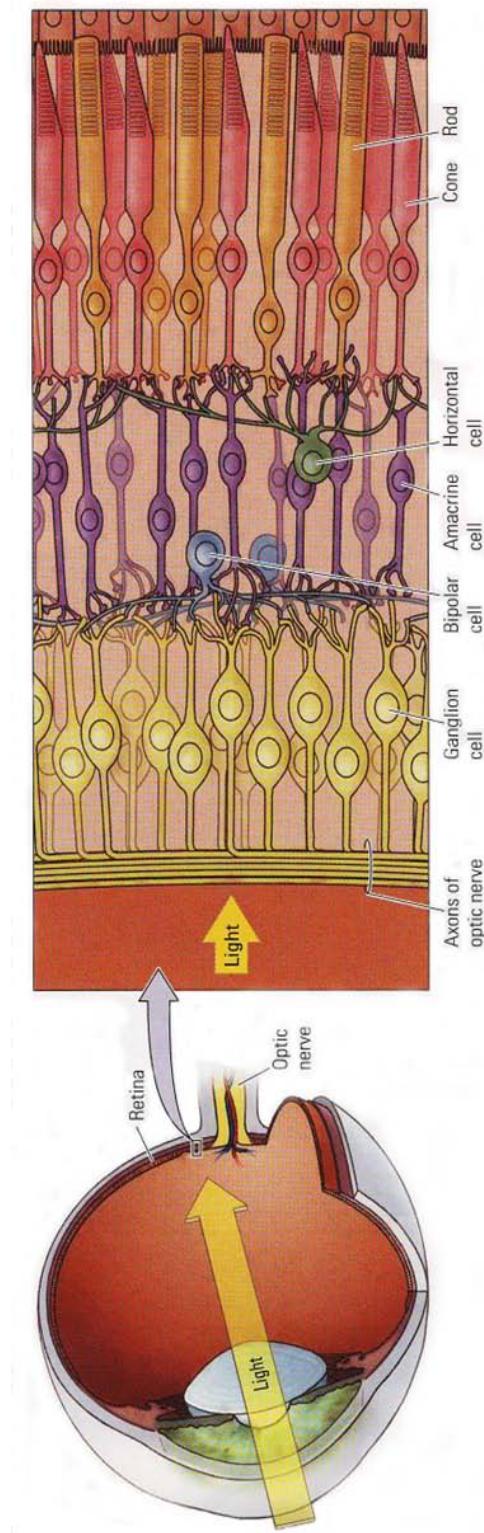
20. Neural plasticity of a brain from newborn to 24 months.



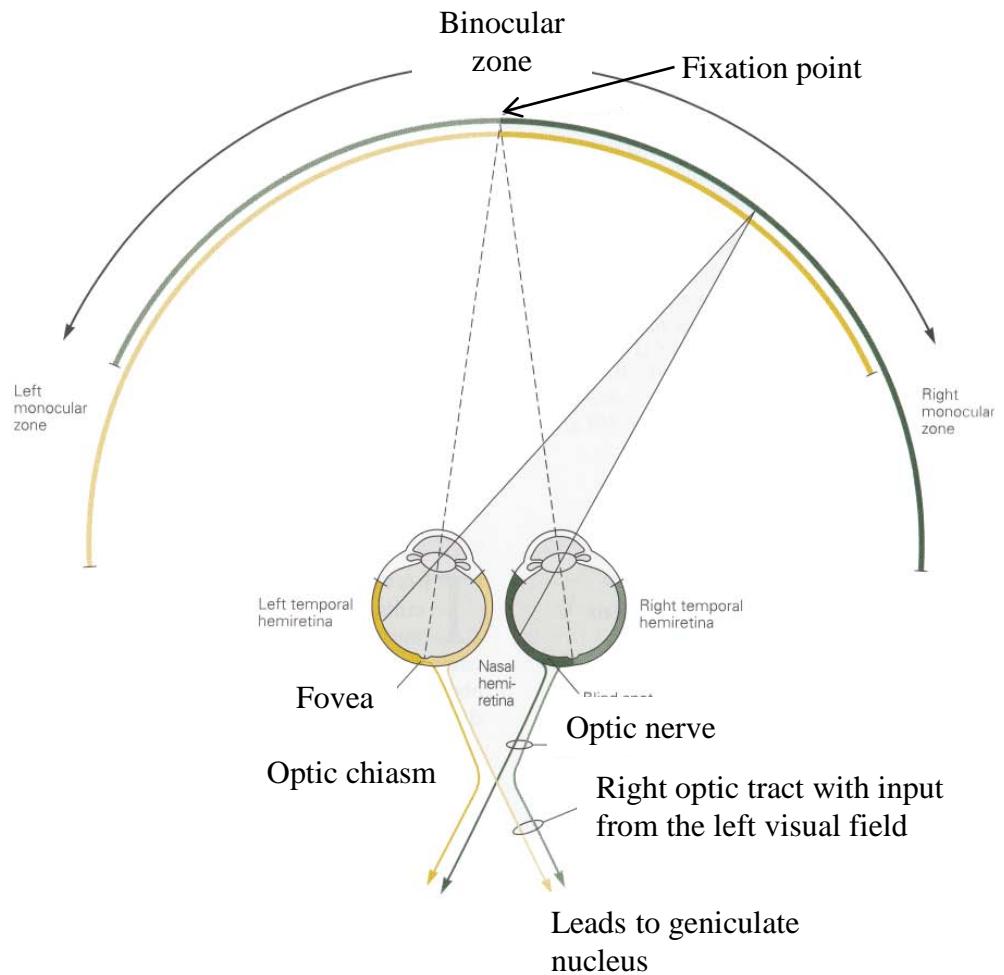
21. Neuron.



22. The visual system.

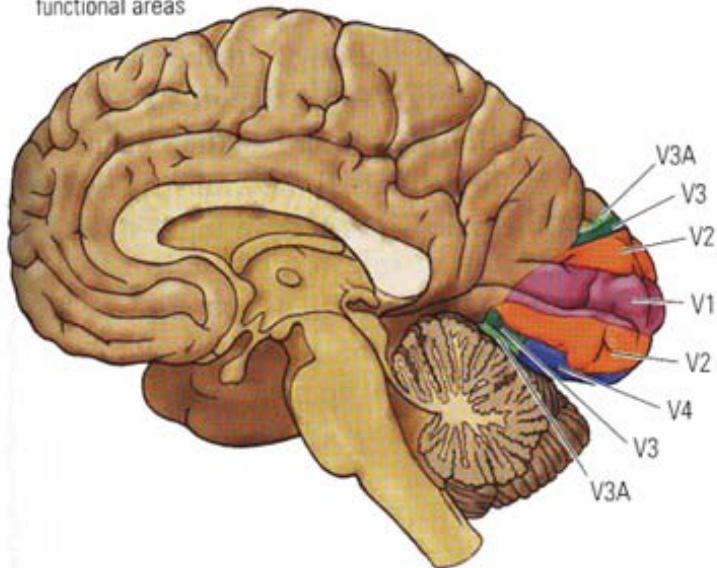


23. The eye.

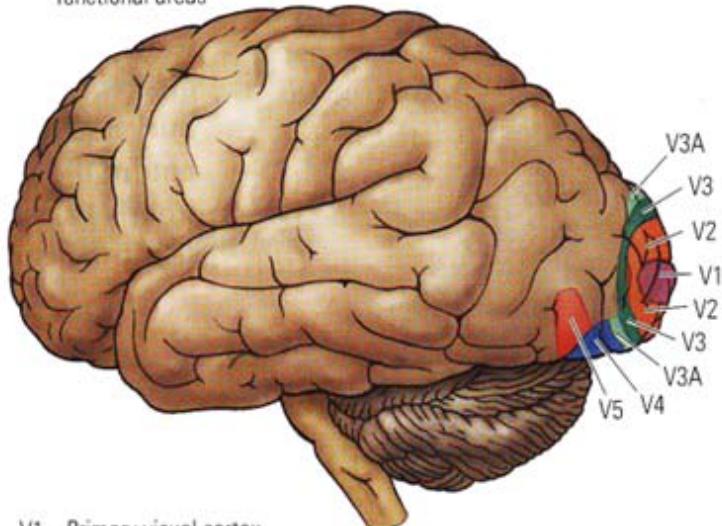


24. The visual field.

(A) Medial view of functional areas

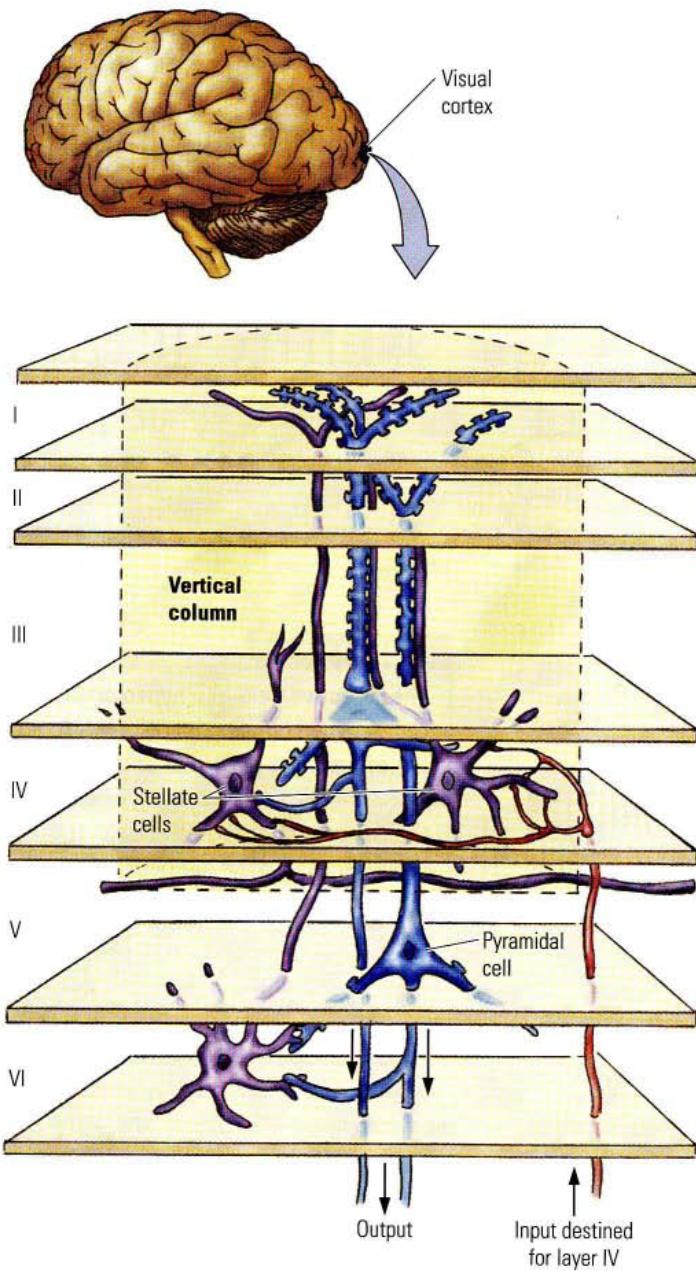


(B) Lateral view of functional areas

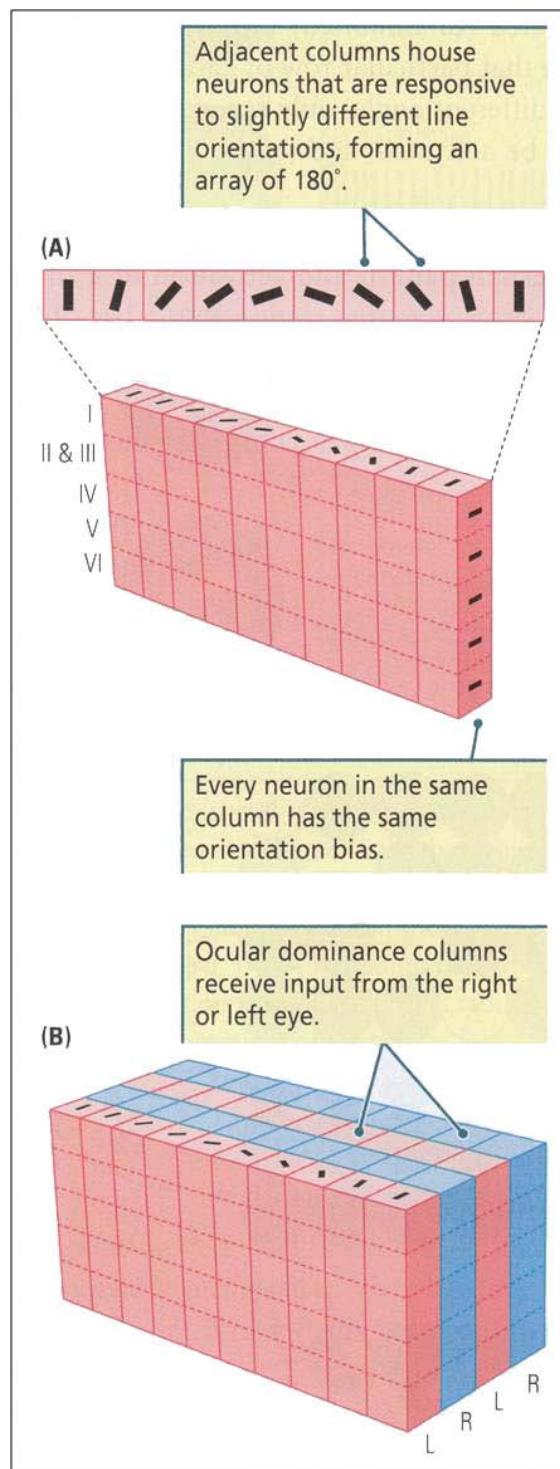


V1 = Primary visual cortex
V2–V5 = Extrastriate cortex

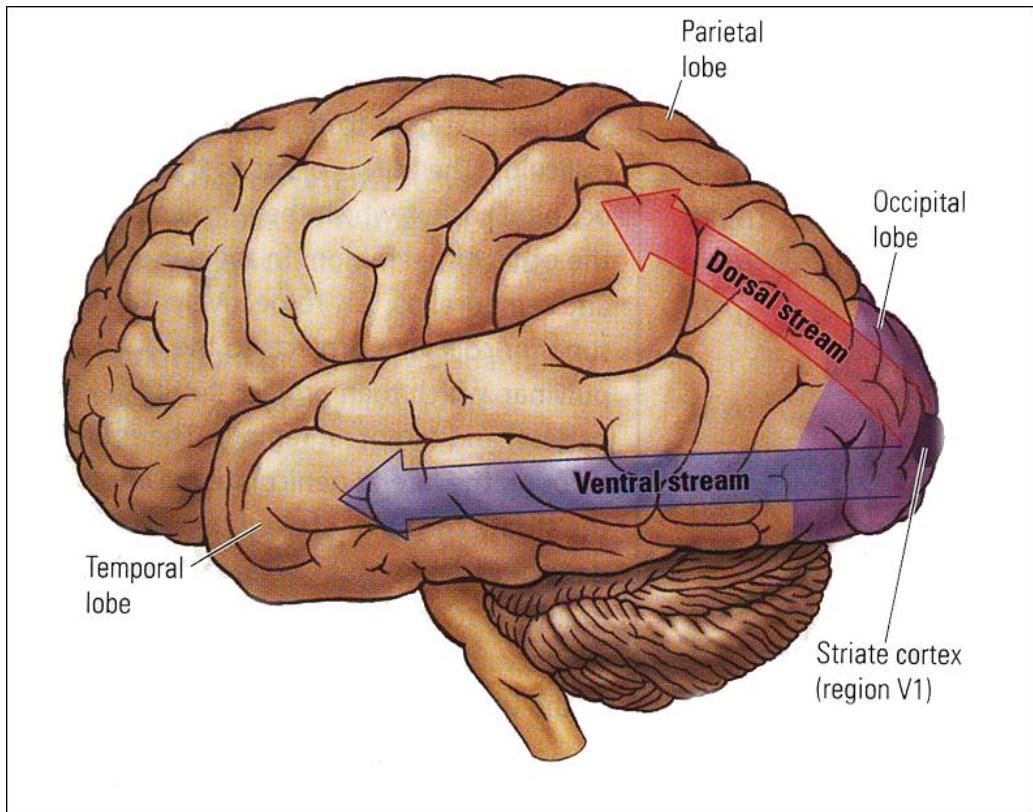
25. Area V1.



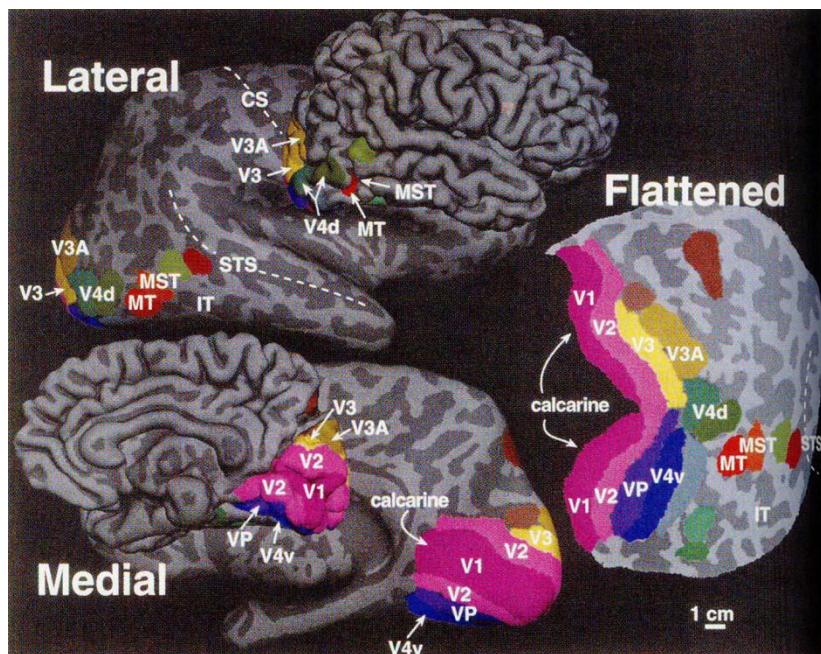
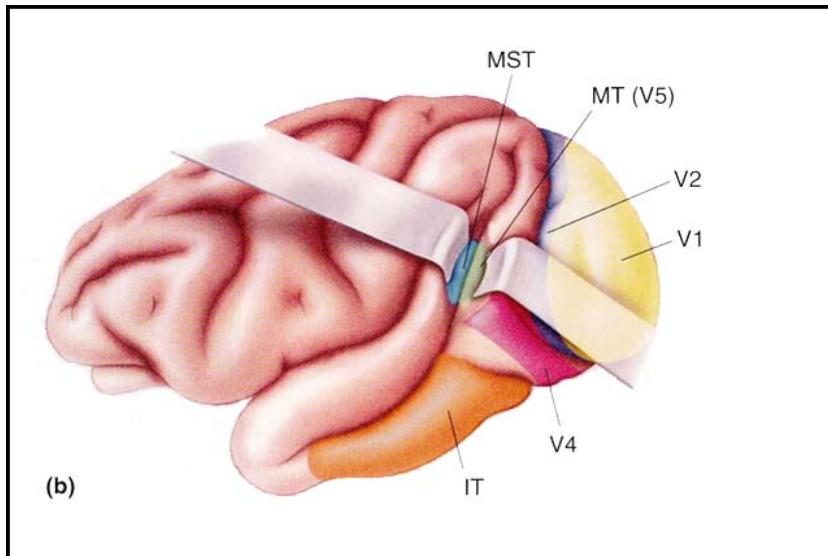
26. Layers of visual cortex.



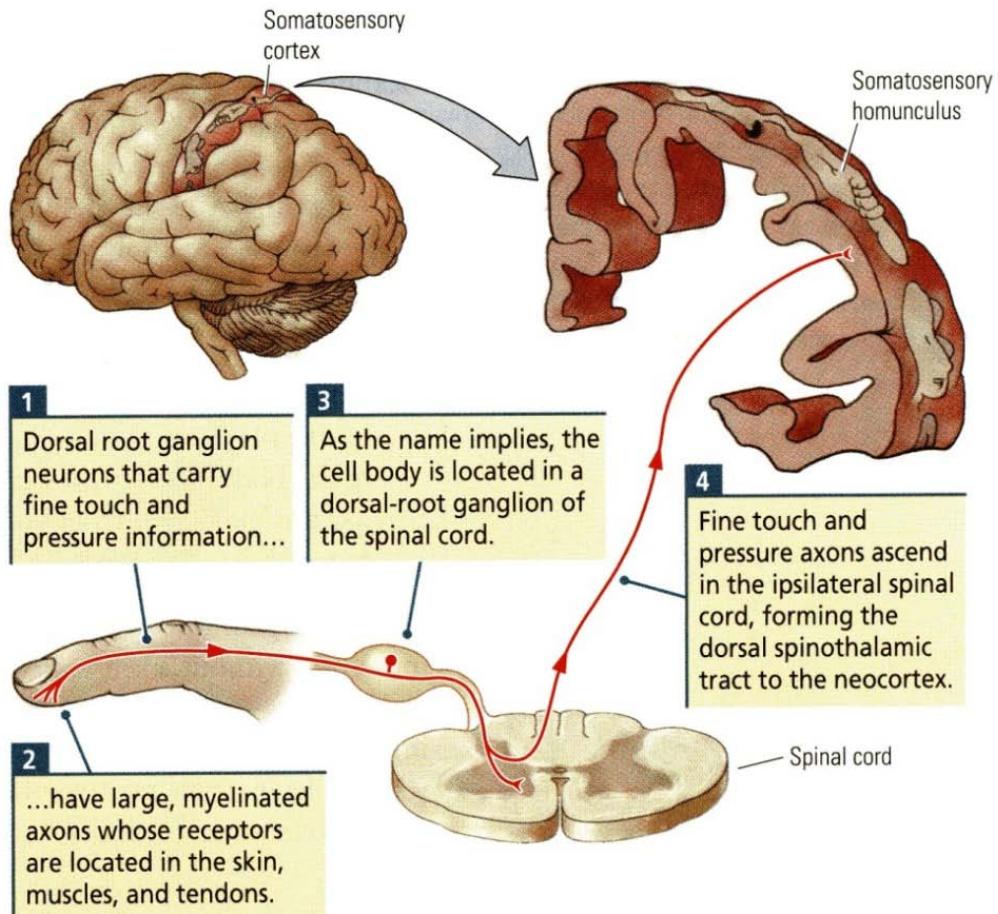
27. Neurons that respond to different line orientations.



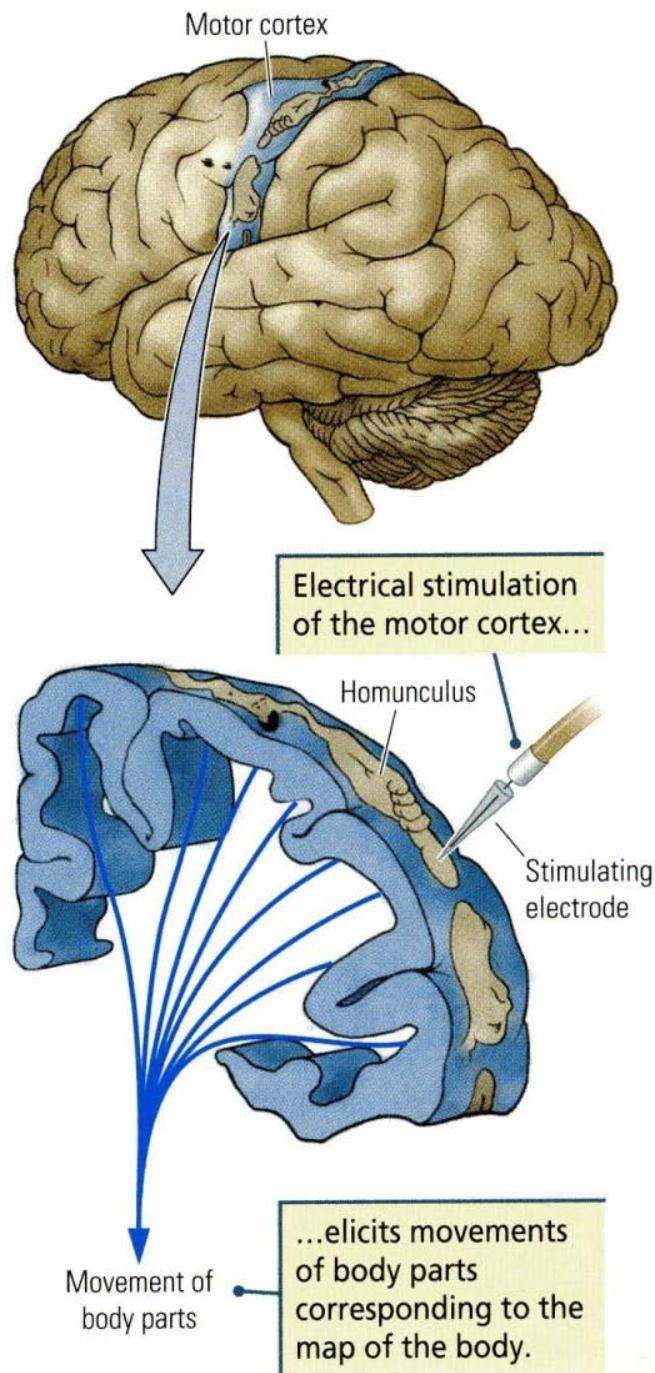
28. The dorsal and ventral streams.



29. Areas MT and MST (above in macaque monkey cortex and below in human cortex).



30. The somatosensory cortex.



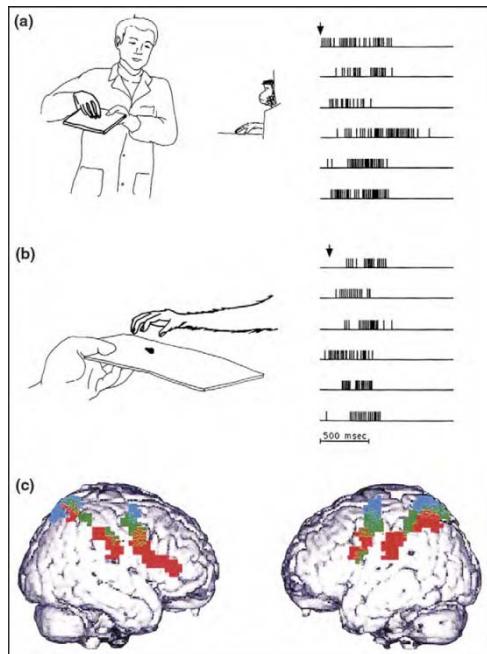
31. The motor cortex.



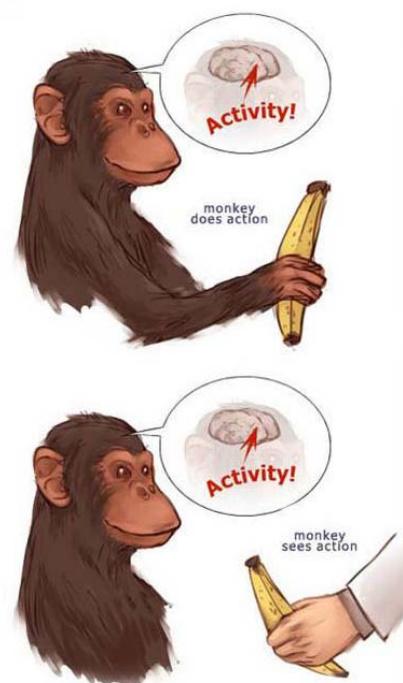
32. *The Musicians*.



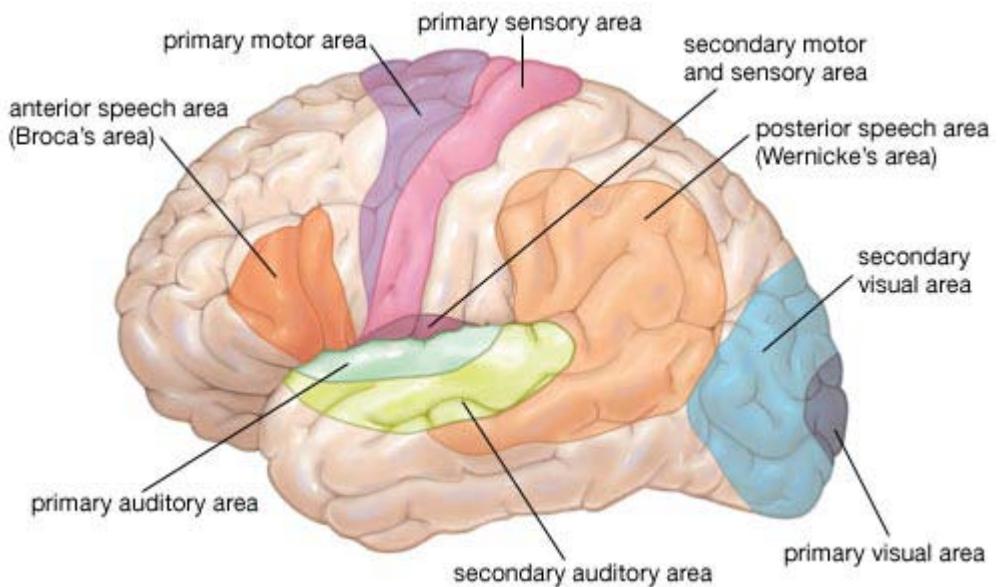
33. *David with the Head of Goliath.*



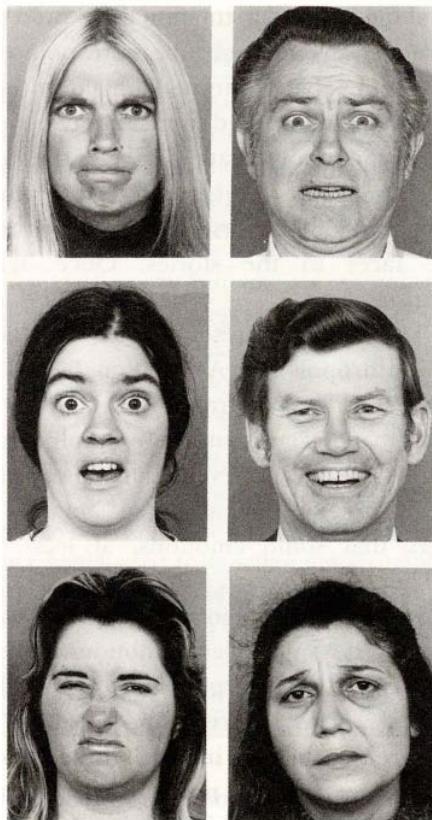
34. The mirror neuron system in monkeys and humans.



35. Monkey see, monkey do.



36. Broca's area.



37. Some of the photographs used in Paul Ekman's studies, demonstrating anger, fear, surprise, joy, disgust and distress.



38. Sample pictures of hands and feet in painful (Pain) and neutral (No-Pain) conditions.



39. *The Fortune-Teller.*



40. Scenes of martyrdom from the S. Stefano cycle, Niccoló Circignani.



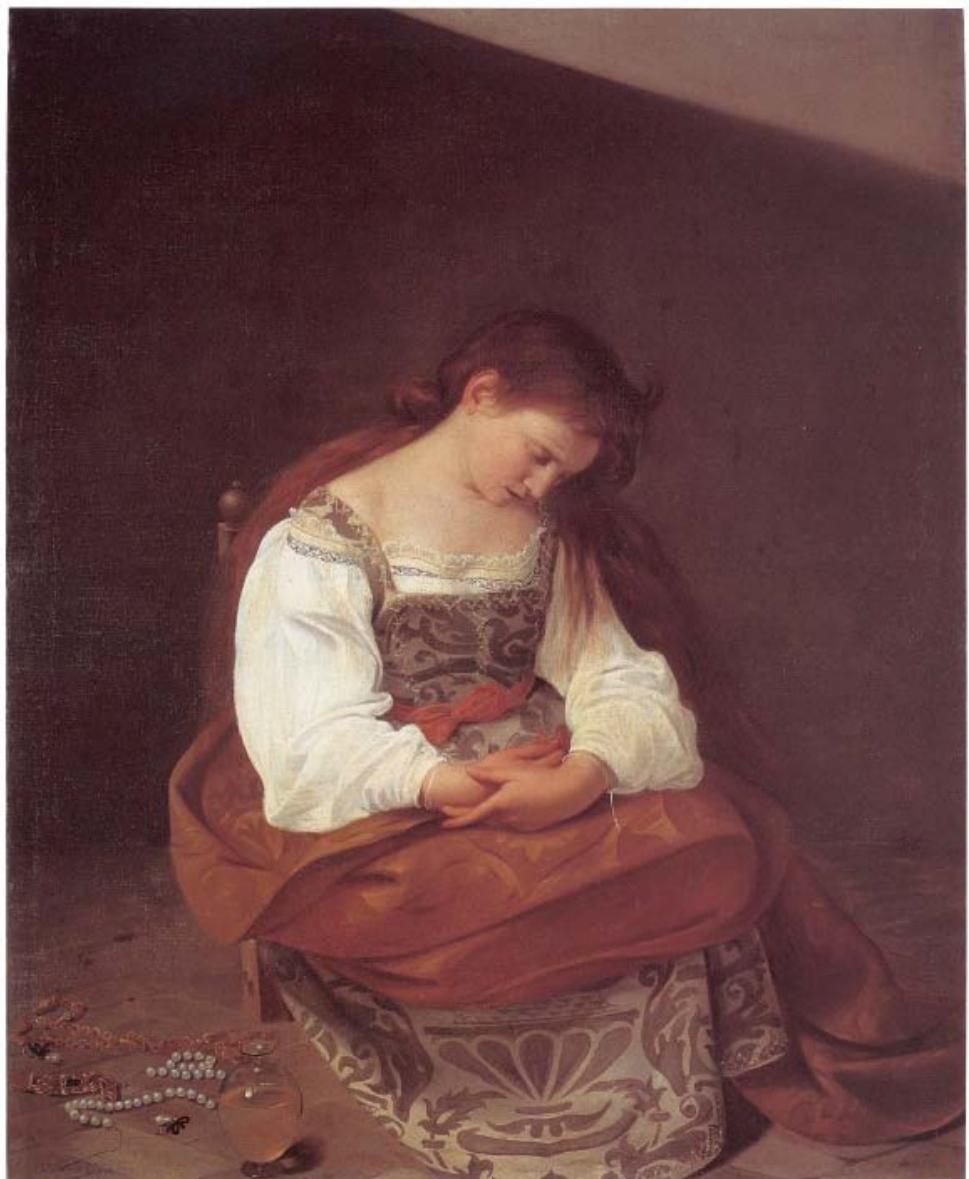
41. Self-Portrait,
Giovanni Paolo Lomazzo.



42. *David with the Head of Goliath*, Donatello.



43. *St Margaret and the Dragon*, Raphael and Giulio Romano.



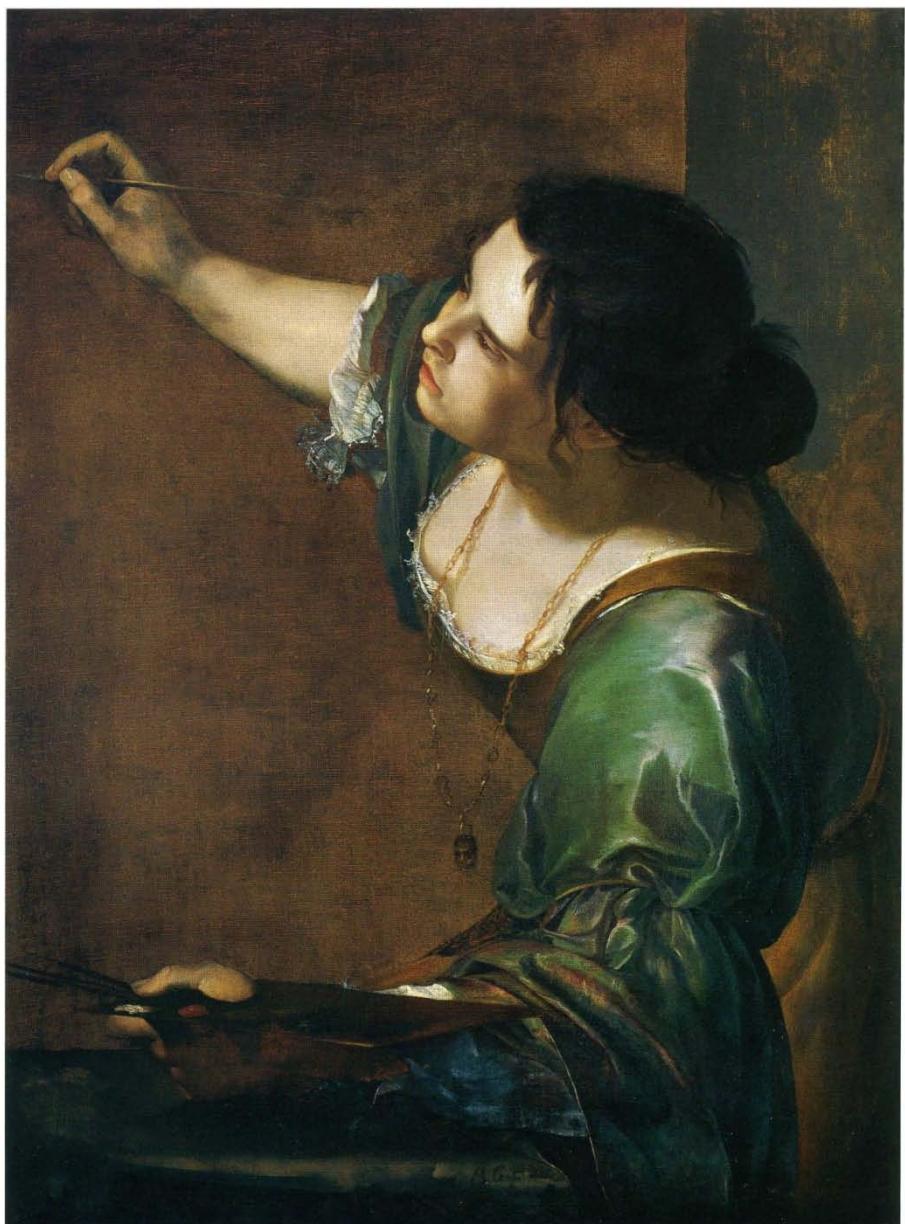
44. *Penitent Magdalen.*



45. *Medusa*.



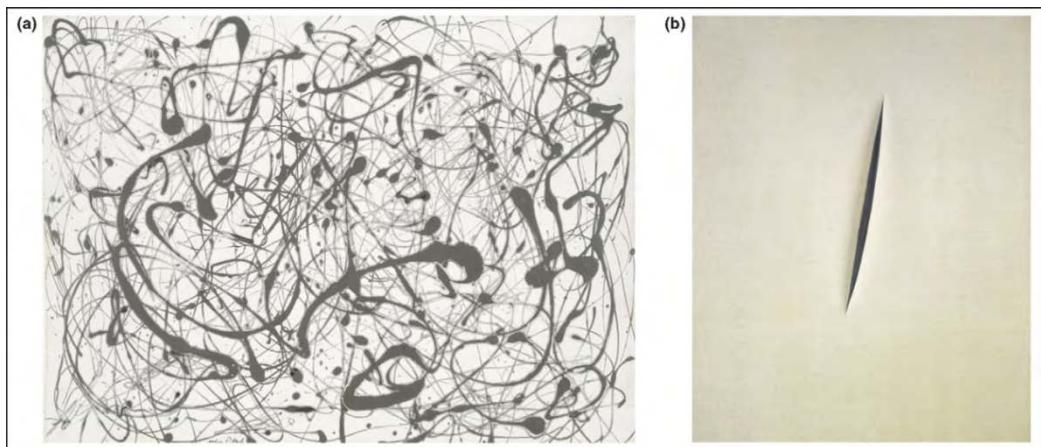
46. *Self-Portrait as Bacchus.*



47. *Self-Portrait as the Allegory of Painting (La Pittura)*,
Artemisia Gentileschi.



48. *Slave Called Atlas*, Michelangelo.



49 and 50. *Number 14: Gray*, Jackson Pollock.

Concetto Spaziale 'Atteza' (*Spatial Concept 'Waiting'*), Lucio Fontana.



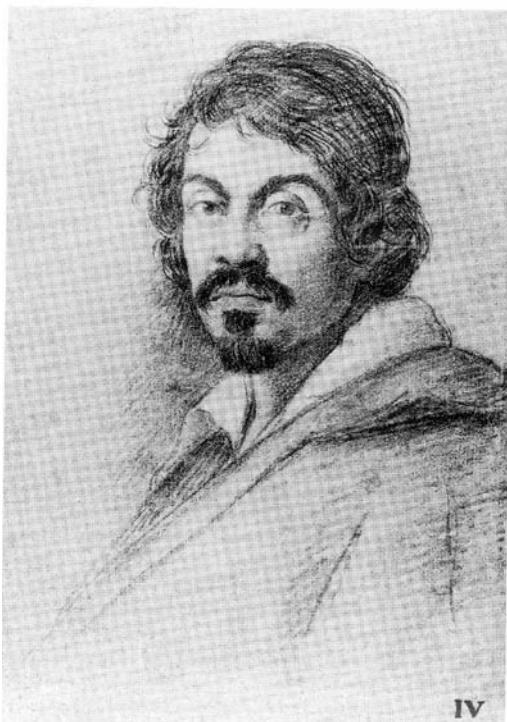
51. *The Cardsharps*.



52. *St Catherine of Alexandria*.



53. *Portrait of Fillide.*



54. *Portrait of Caravaggio,*
Ottavio Leoni.



55. *Death of the Virgin.*



56. *Susanna and the Elders*, Artemisia Gentileschi.



57. *Judith and Her Maidservant*,
Artemisia Gentileschi.



58. *Judith and Her Maidservant*,
Artemisia Gentileschi.



59. *Judith and Her Maidservant*,
Orazio Gentileschi.



60. *Judith and Her Maidservant with the Head of Holofernes*,
Orazio Gentileschi.



61. *Judith and Holofernes*, spandrel from the Sistine Chapel Ceiling,
Michelangelo.



62. *The Return of Judith*, Sandro Botticelli.



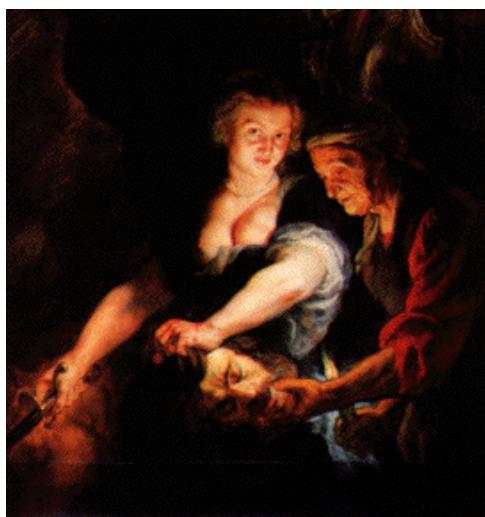
63. *Judith with the Head of Holofernes*,
Andrea Mantegna or Follower (Possibly
Giulio Campagnola).



64. *Judith with the Head of Holofernes*, Titian.



65. *Judith and Holofernes*, Tintoretto.



66. *Judith with the Head of Holofernes*, Peter Paul Rubens.



67. *Judith with the Head of Holofernes*, Carlo Saraceni.



68. *Judith with the Head of Holofernes*, Giovanni Baglione.



69. *Judith in the Tent of Holofernes*, Johann Liss.



70. *Judith*, Giorgione.



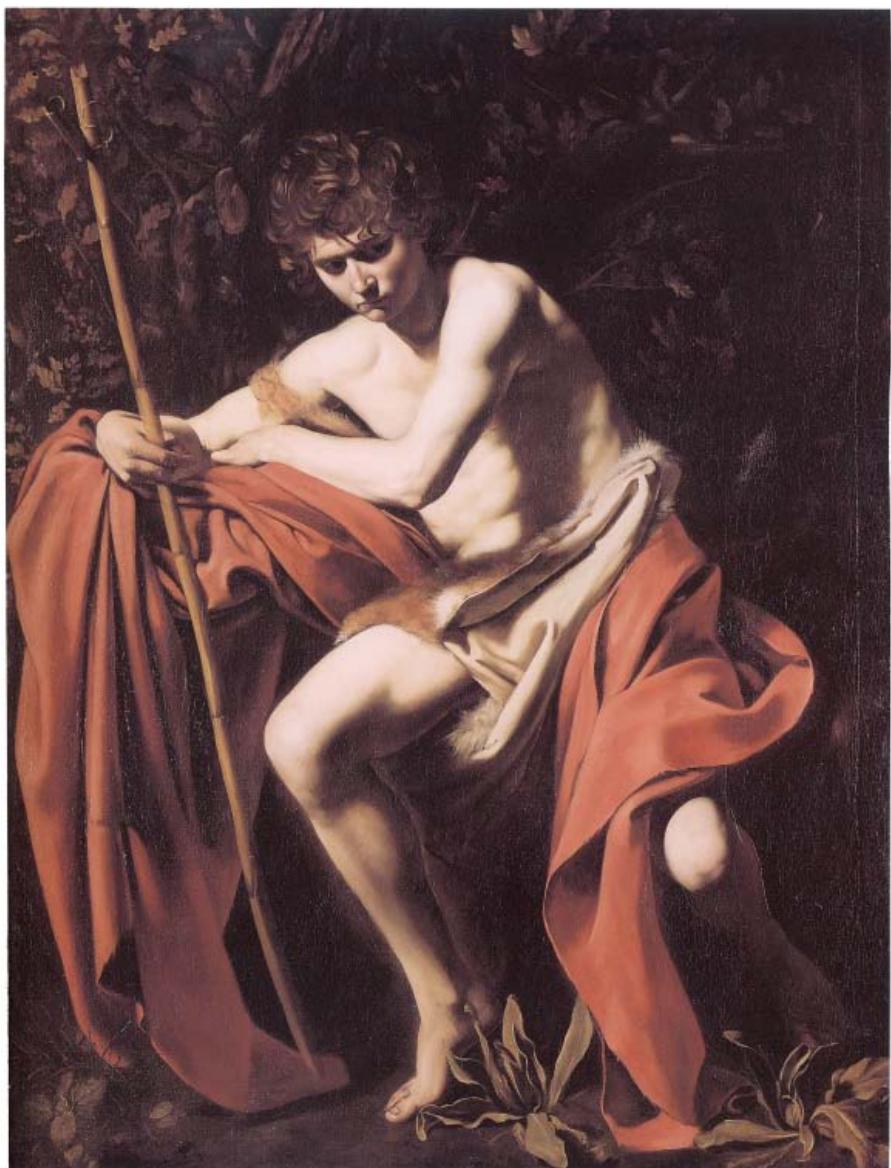
71. *Judith Beheading Holofernes*, Donatello.



72. *Judith Beheading Holofernes*,
Adam Elsheimer.



73. *Great Judith*, Cornelius Galle
the Elder.



74. *St John the Baptist*.



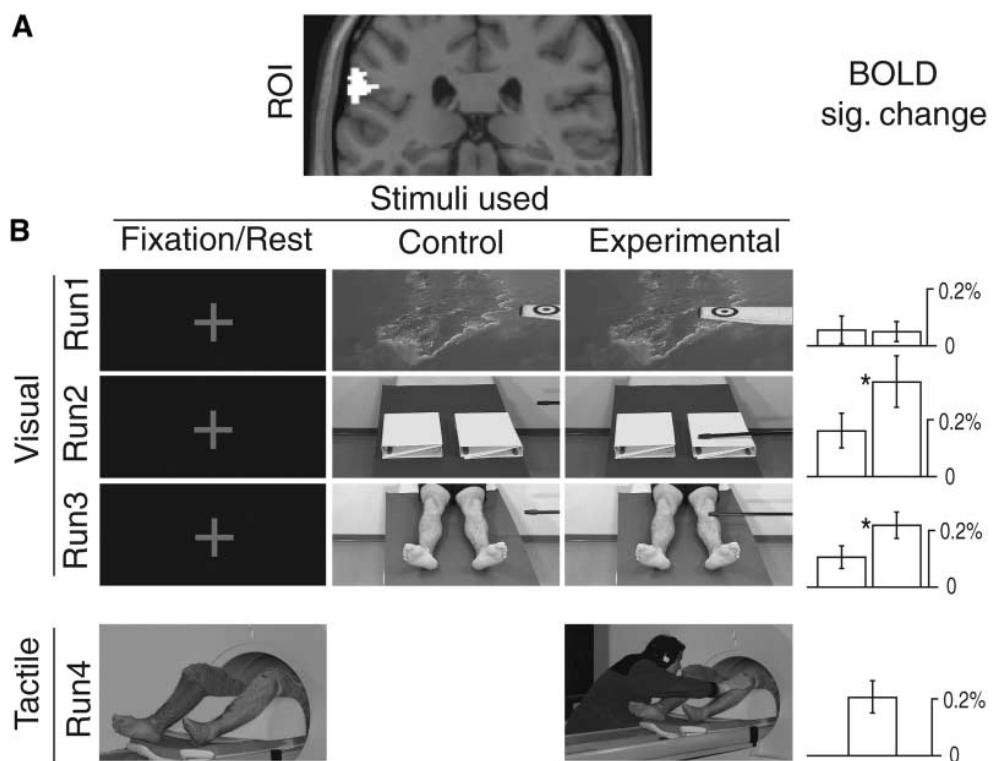
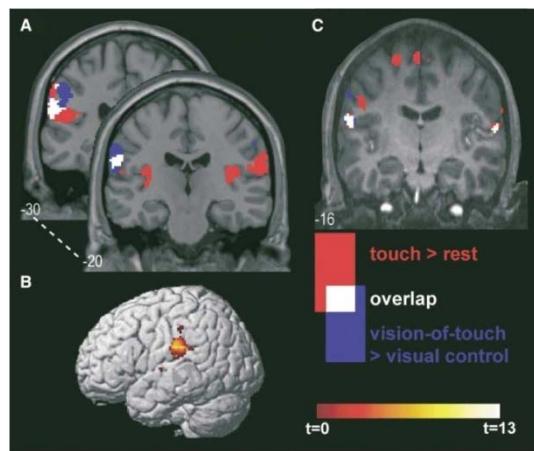
75. *Supper at Emmaus.*



76. *The Murder of Holofernes*, Antonio Tempesta.



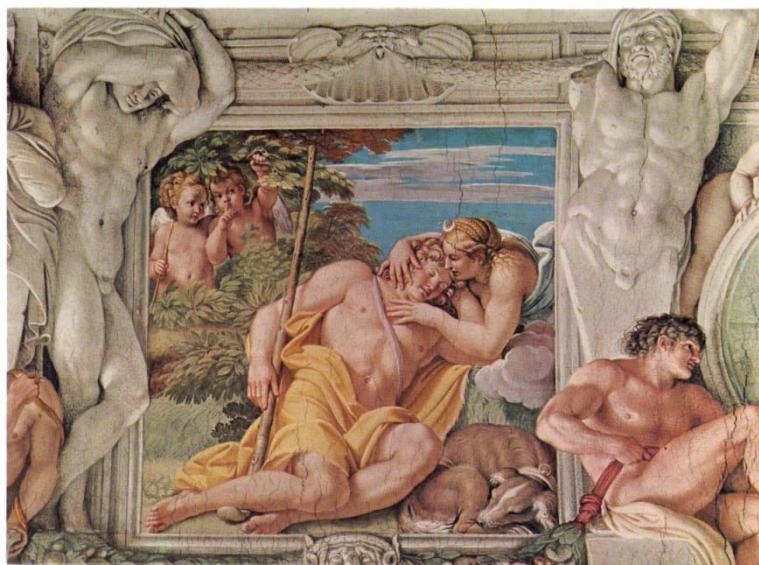
77. Bowerbird.



78. Diagram showing the experiment and the overlap between areas activated by touch and areas activated by the vision of touch.



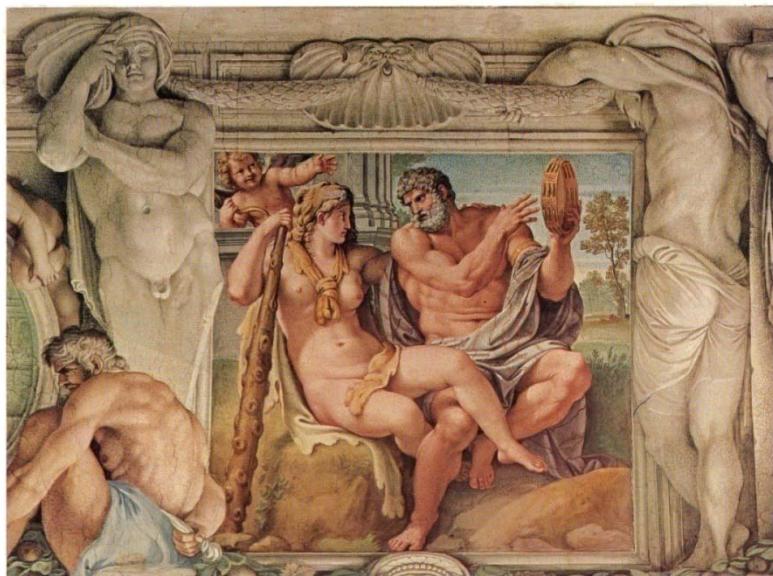
79. Overview of the Farnese Gallery Ceiling, Annibale Carracci (and to a much lesser extent Agostino Carracci).



80. *Diana and Endymion*, Annibale Carracci.



81. *Venus and Anchises*, Annibale Carracci.



82. *Hercules and Iole*, Annibale Carracci.



83. *Jupiter and Juno*, Annibale Carracci.



84 and 85. *Contest of Heavenly and Earthly Love*,
Annibale Carracci.



86. *Bacchus and Ariadne*, Annibale Carracci.



87. *Pan and Diana*,
Annibale Carracci.



88. *Mercury and Paris*,
Annibale Carracci.



89. *Pluto and Proserpina*, Gian Lorenzo Bernini.



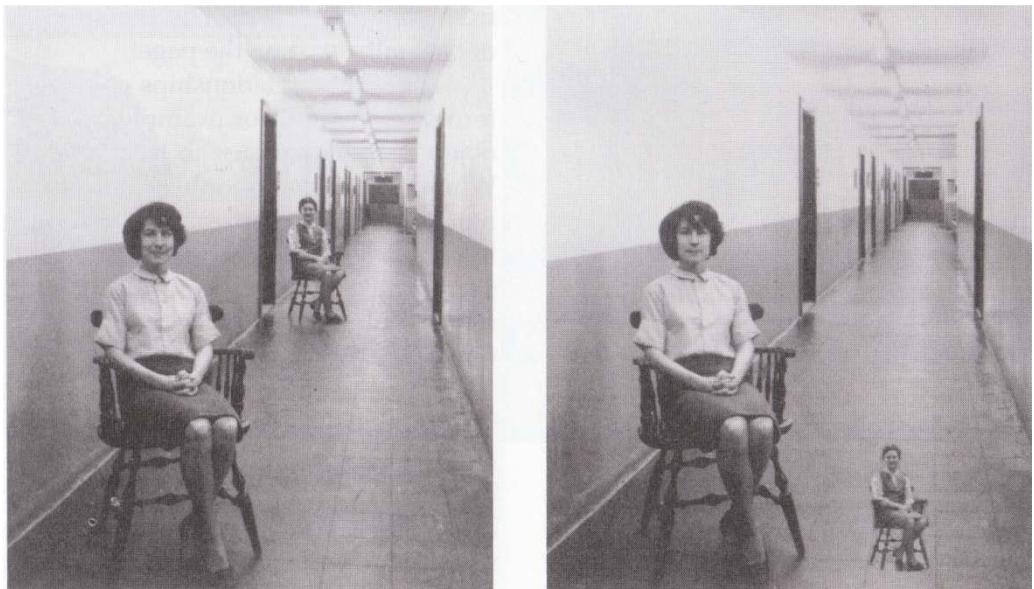
90. *The Bean Eater*; Annibale Carracci.



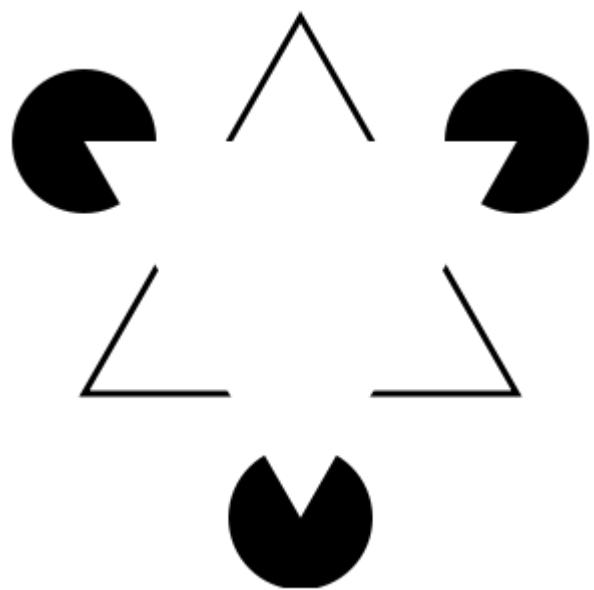
91. *Assumption of the Virgin*, Annibale Carracci.



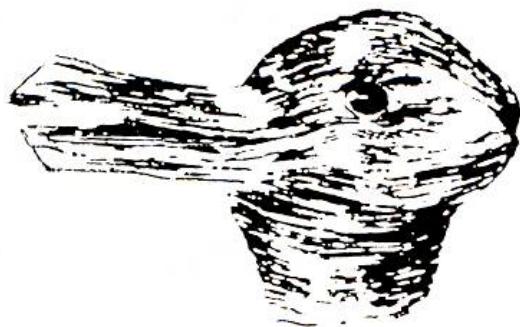
92. *Apollo and Daphne*, Gian Lorenzo Bernini.



93. Perception of size in context.



94. The Kanisza Triangle.



95. Rabbit or Duck?



96. *Supper at Emmaus*.



97. *The Virgin of the Rocks*, Leonardo.



98. *Perseus with the Head of Medusa*,
Benvenuto Cellini.



99. Photograph of *David*, *Perseus* and *Cacus*.



100. *The Tooth Puller*, attributed to Caravaggio.



101. *Three Graces*, Raphael.



102. *Madonna dei Palafrenieri.*



103. *St John the Baptist.*



104. *Divine Love*, Giovanni Baglione.



105. *Divine Love*, Giovanni Baglione.



106. *Amor at the Fountain*, Cecco del Caravaggio (Francesco Buoneri).



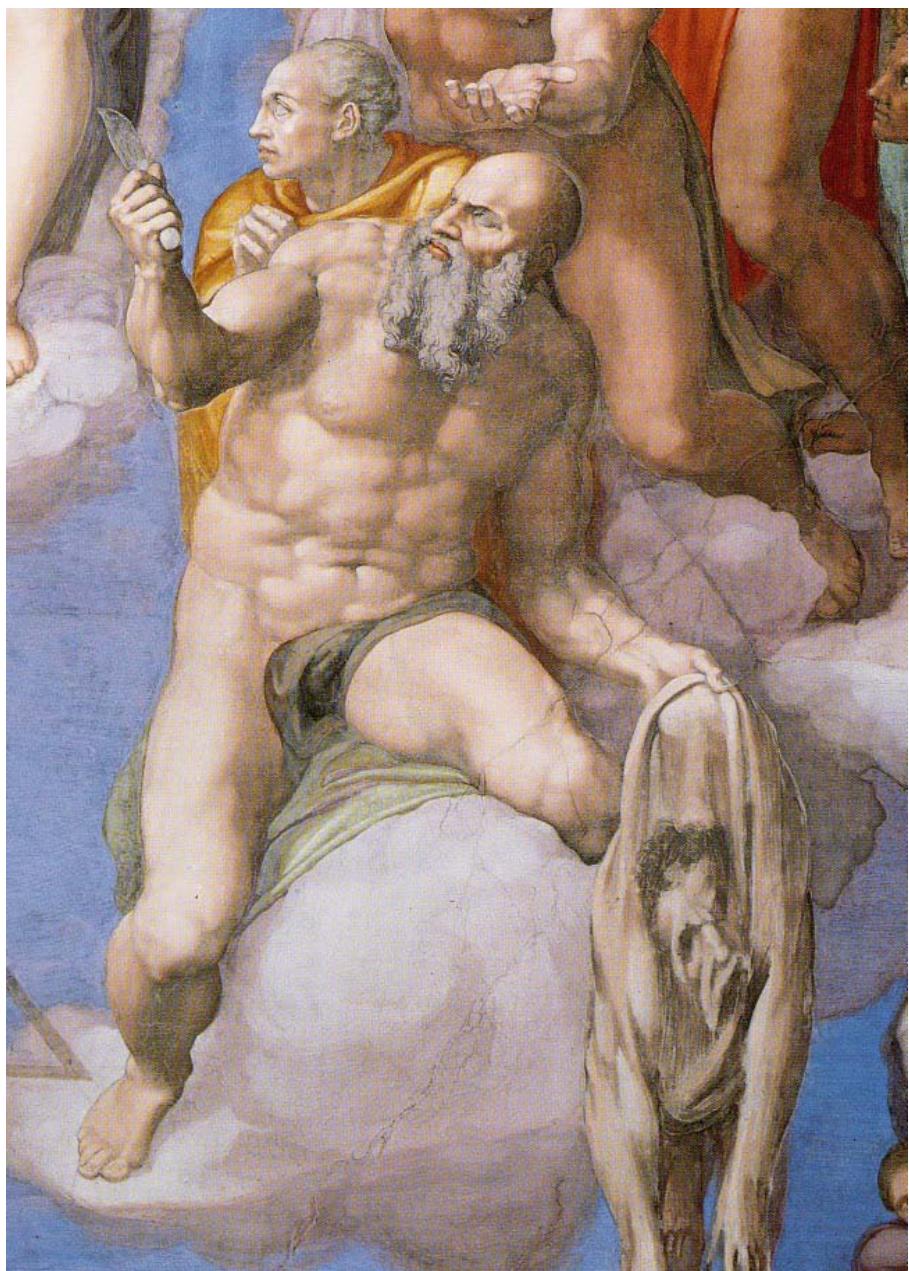
107. *Boy with Basket of Fruit.*



108. *Mercury Descending from Olympus*
(detail from Loggia di Psyche), Raphael.



109. Detail of the border above *Mercury Descending from Olympus* (see above), Giovanni da Udine.



110. St Bartholomew (detail from the Last Judgement), Michelangelo.

111. *Victory*, Michelangelo.



112. *St Matthew and the Angel*, Gerolamo Romanino.





113. *St Matthew and the Angel*, Giovanni Girolamo Savoldo.



114. *Jupiter and Cupid* (detail from Loggia di Psyche), Raphael.



115. *Doubting Thomas*, Albrecht Dürer.



116. Images from *Evangelicae Historiae Imagines*, Bernardino Passeri, Marten de Vos, and Jerome and Anton Wierix.



117. *Jupiter, Neptune and Pluto.*



118. *The Rest on the Flight to Egypt.*



119. *The Crucifixion of St Peter*, Michelangelo.



120. *The Conversion of St Paul*, Michelangelo.



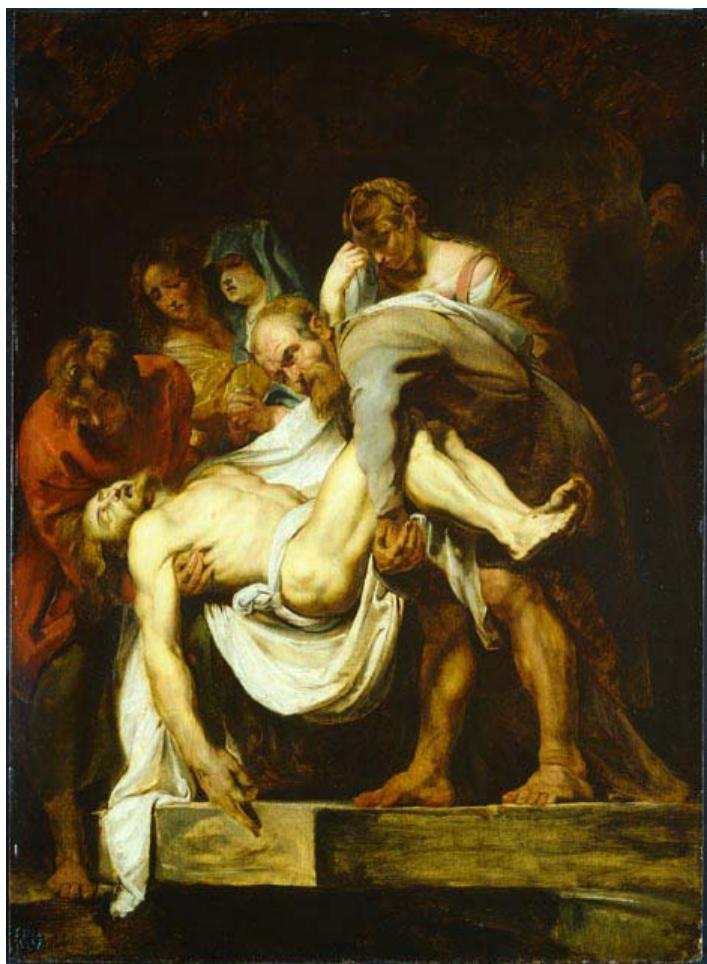
121. *Conversion of St Paul.*



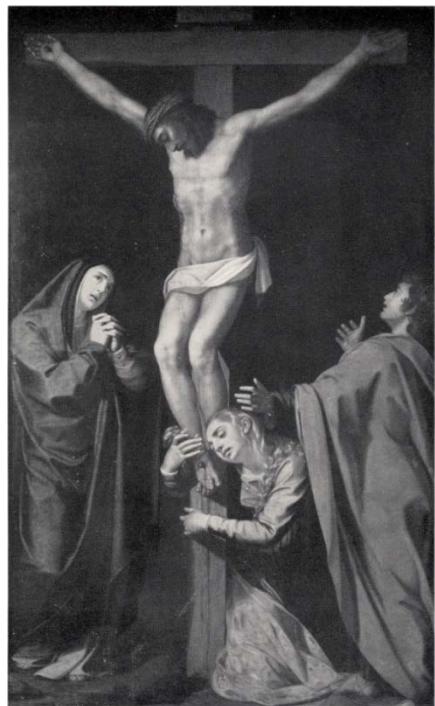
122. *Conversion of St Paul*, design after Raphael.



123. *The Conversion of St Paul*, Taddeo Zuccaro.



124. *The Entombment* (after Caravaggio), Peter Paul Rubens.



125. *Crucifixion*, Scipione Pulzone.



126. *The Ascension*, Girolamo Muziano.



127. *Visitation*, Federico Barocci.



128. *Pietà*, Michelangelo.