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UNIVERSITY OF ST. ANDREWS

Studies in the Draughtsmanship of Renaissance Sculptors:

**Drawings by Jacopo della Quercia, Lorenzo Ghiberti, Donatello,
Leonardo and Michelangelo**

A Thesis submitted to the Faculty of Arts in Candidacy for the degree of

M. Phil.

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By

Pamela McLean

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ABSTRACT

The study of sculptors' drawings and the recognition of their particular characteristics has, for too long, been neglected by historians. While many writers have alluded to there being such a category of drawing, a true analysis of these important and informative documents has, as yet, been elusive. The aim of this thesis was to establish a corpus of such work from those sculptors working in Tuscany in the quattrocento and early cinquecento and to analyse the technical characteristics of these drawings with a view to recognising and probing the subtleties of their execution over a period of time which covered the careers of Jacopo della Quercia, Ghiberti, Donatello, Leonardo, Michelangelo and their contemporaries.

The need to provide a suitably comprehensive context in which future studies could take place was an important consideration in looking at developments over the course of a century. It was also felt important that such a period of innovation be set within its development cycle in relation to the influences of the previous century and in looking forward to the later work of Michelangelo and Baccio Bandinelli in the next, in order to measure the extent of such advancement. The corpus of work necessarily begins as rather narrow but gradually builds in size towards the middle years of the century when a number of developments have emerged and drawings become more plentiful. The growing activity in the third quarter of the quattrocento allowed access to the works of a wider number of artists whose style showed knowledge and understanding of the development work undertaken by the older masters. By the time of Leonardo, it was

possible to choose drawings from a particular range of commissions for equestrian works, while the early career of Michelangelo, culminating in the production of the marble *David*, brought the period to a close by illustrating the adaptation of the technical and stylistic developments of a century.

I, Pamela Linda McLean, hereby certify that this thesis is approximately 100,000 words in length, has been written by me, that it is the record of work carried out by me, and that it has not been submitted in any previous application for a higher degree.

Date 14. 8. 2000 Signed

I was admitted as a research student in 1995 and as a candidate for the degree of Ph.D. in 1997; the higher study for which this is a record was carried out in the University of St. Andrews between 1995 and 2000.

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I hereby certify that the candidate has fulfilled the conditions of the Resolution and Regulations appropriate for the degree of Ph.D. in the University of St. Andrews and that the candidate is qualified to submit this thesis in application for that degree

Date..... Signed.....

Supervisor

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INTRODUCTION

The study of Renaissance drawing practice between the late fourteenth century and the early decades of the sixteenth century is one of the most fascinating in the history of art, in the development from controlled precision to a free and experimental form of graphic representation. Although a great many drawings have been lost, those which remain are valuable milestones in a study of development throughout the quattrocento. This thesis sets out to undertake a study of drawings that are specifically linked to sculptural projects in relief or fully in the round, focusing on those sculptors working in Tuscany, in particular in Florence. The main purpose of the study is to establish a corpus of sculptors' drawings from the quattrocento and to document the development of technique from the work of Jacopo della Quercia to the early period of the work of Michelangelo. Drawings linked to sculptural projects have not been studied as a discrete body of work and, as such, a fitting level of analysis has not been possible. This thesis sets out to redress the balance by studying these drawings in an appropriate context and at a level of detail from which the subtleties of their execution can be properly analysed.

Research up until now has largely concentrated on Renaissance drawings as a general body of material, and drawings linked to sculptural projects have been analysed alongside drawings known to have been produced in preparation for paintings or frescoes. On many occasions only passing consideration has been given to drawings known to have had a sculptural purpose and little

investigation has taken place into the possibilities of sculptural links to a larger body of drawings for which the end product is unknown. In 1968, however, ground-breaking work was carried out by Bernhard Degenhart and Annegritt Schmitt.¹ Their investigations included, for the first time, drawings by sculptors, and allowed them a revolutionary hypothesis -- the attribution of a drawing to Donatello.² While this hypothesis received mixed reactions in 1968, Degenhart and Schmitt's radical thinking has led to renewed interest in sculptors' drawings and a number of exhibitions where sculptors' drawings are viewed in a specialist light. An exhibition at the Drawing Center in New York reviewed drawings from 1400 to 1950, from della Robbia to Augustus Saint-Gaudens and Jean-Baptiste Carpeaux, setting out an impressive display of development within the sphere of sculpture.³ Similar exhibitions have been staged in Britain by the Henry Moore Centre for the Study of Sculpture in Leeds, notably an exhibition of works by Ralph Brown, that also included the drawings associated with the finished pieces.⁴

The main corpus of sculptors' drawings in the quattrocento is generally looked upon as being somewhat narrow, consisting of a few pivotal drawings whose sparseness might render in depth research difficult. These drawings include the *Study for the Fonte Gaia* by Jacopo della Quercia (1), the *Study for Saint Stephen* (2) from the Workshop of Ghiberti, *Five Studies for a Flagellation of Christ* by Ghiberti (3), *Pilate Washing his Hands* (4) by Nanni di Banco, the controversial *Massacre of the Innocents* by Donatello (5), Leonardo da Vinci's

¹ Degenhart and Schmitt, 1968.

² For further discussion of the impact of the *Corpus* see Clark, 1970, 260-265.

³ Eisler, 1981.

⁴ Farr, ed.

equestrian studies, and a variety of works by Michelangelo, known to have been prepared in readiness for sculptural projects. However, careful study does show a wealth of additional activity in this field throughout the century, occurring mainly within the circle of development around the workshops of the leading draughtsmen. However sporadic and subtle such activity might appear to be at given periods within the century, a more extensive view of graphic practice may offer a clearer sense of technical development in the field.

Working from the body of available work, detailed analysis determines the characteristics of the graphic techniques prevalent at this time in the field of sculptural draughtsmanship. Such analysis will concentrate on the drawings themselves against a backdrop of theoretical and analytical thought during this period, in an effort to set the development in an appropriate context. The definition of that context begins with a discussion on general theories of vision and the legacy left to Renaissance theorists by classical scholars on the subject.

Classical Theories of Visual Perception

The ability to visualise in three dimensions is recognised by scientists as a discrete function of the brain. In Renaissance times such a talent was also recognised as a pre-requisite of artistic excellence. Vasari, throughout *Le vite*, stresses the importance of perfect spatial judgement as a basic component of *disegno*, as vital in painting and sculpture as in architecture. Alberti too implores the young artist to practise painting using sculpted models:

If it is a help to imitate the work of others, because they have greater stability of appearance than living things, I prefer you to take as your model a mediocre sculpture rather than an excellent painting, for from painted objects we train our hand only to make a likeness, whereas from sculptures

we learn to represent both likeness and correct incidence of light. . . . No one will ever be able to paint a thing correctly if he does not know its every relief, and relief is more easily found by sculpture than by painting.⁵

The artistic exponents of the Renaissance were well aware of the subtleties of seeing and of acquiring accuracy in such representation, a subject that will be explored later in the thesis. But what does it mean to see? “The plain man’s answer (and Aristotle’s, too) would be, to know what is where by looking. In other words, vision is the *process* of discovering from images what is present in the world, and where it is.”⁶ David Marr’s “plain man’s answer” focuses on the first step in the process of artistic representation, looking at and processing what one sees. The “quality” of looking and seeing is what separates the artist from the layman, further consideration of the level of the processing that which separates the working artist from the master. It may well be that these qualities differentiated those potentially able to sculpt and those who actually went on to make careers of the art.

The Renaissance artist was helped and supported in his endeavours by a number of theses designed to offer a methodology for the practical execution of artistic works. These works will be discussed in the next chapter. For the present, it is important to reflect on the contribution left to quattrocento scholars in relation to building their understanding of two- and three-dimensional visual perception and to probe, in its turn, how such understanding was passed on to the artist in order to improve not only his work, but also his personal understanding.

⁵ Alberti, *On Painting*, trans. Grayson, 92.

The classical view of visual perception is based on objective experimentation, where visual perception is discussed as a purely scientific process. The mathematician Euclid is credited with having first documented the basis of vision in *Optics* which begins by listing a number of definitions:⁷

1. Let it be assumed that lines drawn directly from the eye pass through a space of great extent;
2. and that the form of the space included within our vision is a cone, with its apex in the eye and its base at the limits of our vision;
3. and that those things upon which the vision falls are seen, and that those things upon which the vision does not fall are not seen;
4. and that those things seen within a larger angle appear larger, and those seen within a smaller angle appear smaller, and those seen within equal angles appear to be of the same size;
5. and that things within the higher visual range appear higher, while those within the lower range appear lower;
6. and, similarly, that those seen within the visual range on the right appear on the right, while those within that on the left appear on the left;
7. but that things seen within several angles appear to be more clear.⁸

These statements set in place the basis for an understanding of vision. Euclid goes on to expand on these assertions by way of geometric models in order to explore man's ability to visualise, particularly by defining the model of the visual cone and the field of vision. This purist approach to vision forms the basis of further writing on the subject, particularly from a later mathematician, Claudius Ptolemy. Writing around the second century A.D., and building on the elementary theories of Euclid, Ptolemy outlined such objective experimentation and described the physical properties of the science of vision.⁹

⁶ Marr, 3.

⁷ Euclid was a teacher of mathematics in Alexandria in the early third century B.C. Little is known of his life apart from his writings, the principal of which are the thirteen books of the *Elements of Geometry*. The *Optics* is an essay on the mathematics of optics and exists in two forms, one written by Euclid, the other a recension by Theon and written in the fourth century A.D. See Burton, 357-372 for a translation of the text.

⁸ Burton, 357.

⁹ The date of Ptolemy's birth is unknown, however, two milestones have been established, Ptolemy's observations in the *Almagest* from the eleventh year of Hadrian's reign in 127 A. D. and those from the fourth year of Antoninus Pius' reign in 141 A.D. Smith plots a mid-point between these two dates and sets his birth at around 100 A.D. For a biographical

In the second book of his *Optics*, Ptolemy undertakes an analysis of vision: the objective mode; the subjective mode; visual illusions.¹⁰ In Section Two, he introduces the three categories of visual properties (intrinsic, primary and secondary visibility) in what he terms, “the visual flux”.¹¹ Intrinsic visibility is described as “luminous compactness”, where, if the visual sense is to function, an object must be lit, and be compact enough to impede the visual flux; in other words, vision must be alerted to the fact there is something substantial (in terms of mass) to be seen. Colours are “primarily visible” because one cannot see anything that does not have colour (apart from light). All remaining properties have secondary visibility because bodies are recognised by means of inherent properties of colour and of shape.¹² In this passage, Ptolemy is interested in the objective nature of visibility. His interest in any subjective quality is only the interaction of the viewer with the object, but in a physical, not a psychological sense: “We contend, therefore, that these visible properties exist in two ways, one of which depends upon the disposition of the visible property [itself] and the other upon the action of the visual faculty”.¹³ Mark Smith cites this passage as Ptolemy’s attempt to differentiate between the objective and subjective grounds for visibility, claiming that a crucial distinction (“albeit rough”) is being drawn between the objective grounds of

sketch of Ptolemy’s life, see Smith, 1-5; Toomer, 1976, 186-206; Toomer, 1984, 1. See Toomer, 1984 for a discussion on Ptolemy’s *Almagest*. The “Ptolemaic renaissance” is discussed by Gadol, 156-157.

¹⁰ The only surviving text of the *Optics* is a twelfth-century Latin version of an Arabic translation of the Greek original or its Arabic counterpart. See Smith for a biographical sketch on the *Optics*, 5-21. The *objective mode* is covered in sections 4-21; the *subjective mode* in sections 22-82; *visual illusions* in sections 83-142. Smith, 70-128.

¹¹ Smith, 71.

¹² The “secondary visible properties” coincide with Aristotle’s writings on the subject. According to Aristotle “visible” is “that which is seen in light”. Defined in this way the object of sight is colour. “Hence in order to understand colour -- the object of vision -- we must obtain a true view of the medium of vision -- light”. Beare, 56-57. For discussion on Aristotle’s theories of vision see Beare, 56-92.

visibility, i.e. “the disposition of the visible properties themselves and its subjective grounds in perceptual interpretation (according to the action of the visual faculty)”.¹⁴ Smith interprets “visual faculty” in an emotional sense.

Ptolemy’s text, however, makes no direct reference to the interaction of factors which may involve memory or emotional recollection, what might be called, the human factor.¹⁵ Whether this is, in fact, what Ptolemy is alluding to is not clear in his use of the term “visual faculty”.

Ptolemy’s discussion on man’s ability to see is based on the view that the optical nerve causes a visual image to occur on the retina through stimulation from the light rays it perceives:

The visual faculty also discerns the place of bodies and apprehends it by reference to the location of its own source-points [i.e. the vertices of the visual cones], which we have already discussed, as well as by the arrangements of the visual rays falling from the eye upon these bodies. That is, longitudinal distance [is determined] by how far the rays extend outward from the vertex of the cone, whereas breadth and height [are determined] by the symmetry displacement of the rays away from the visual axis.¹⁶

This ancient scientific view was familiar to the Renaissance artist through the writings of Leon Battista Alberti, who published *On Painting* in 1435.¹⁷

Alberti’s literary work built on aesthetic theory and owed much to the ideas of

¹³ Smith, 71.

¹⁴ Ibid., footnote 2, 71.

¹⁵ Ibid.

¹⁶ Smith, 81-82.

¹⁷ An inscription on his copy of Cicero’s *Brutus* states that “on the day of Friday at 20.45 hours on 26 August 1435 I completed the work *De Pictura* in Florence”. This volume is in the Biblioteca Marciana in Venice (Cod. lat. 67. cl. xi, last folio). The Italian version, *Della Pittura* is currently in the Biblioteca Nazionale in Florence (MS II. IV. 38, f. 163 v). Its inscription reads, “finished praise be to God on the 7th day of the month of July 1436”. See Clark, 1944, footnote 1, 283; Alberti, *On Painting*, trans. Grayson, 17; Baxandall, 1988, 117; Borsi, 292. See Borsi’s Bibliography for a full listing of the various codices and editions of Alberti’s technical writings, 382-386. The article by Watkins, *The Authorship of the Vita Anonyma* provides interesting information on the background to Alberti’s life, but also to the character of much of his writing.

the ancients -- Aristotle, Cicero, Plato, Quintilian and Augustine, whose philosophies found renewed life in the humanistic atmosphere of Florence in the fifteenth century.¹⁸ The choice of a three-part layout for *On Painting* reveals the influence of Roman treatises, particularly that of Quintilian's *Institutio oratoria*, a point underlined by Martin Kemp:

There are numerous indications in the text and in the overall organisation of the treatise that it is aimed at the 'young painter', but it is not an instructional book of the kind intended for the average studio apprentice. Rather, Alberti exploits the vehicle of a pedagogic treatise, in the manner of Quintilian's *Institutio oratoria*, to expound the principles of the discipline in such a way as to impress fellow students of the liberal arts, particularly the young and those entrusted with the education of the young.¹⁹

In terms of his ideas on visual theory, Alberti is similarly inspired by the ancients and owes much to Euclid, whose treatise on perspective established the fundamental laws of optics using geometric principles.²⁰ In its turn, Euclid's work influenced that of Ptolemy, a source of reference for Alberti which remains relatively unrecognised.²¹

In terms of discussion on the scientific idea of visual perception the two are entirely similar.²² Alberti supports the notion of a "visual pyramid" to explain how the eye receives its images of the world. As Ptolemy, Alberti describes the

¹⁸ Gombrich, 1957, 173; Spencer, 1957, passim; Kristeller, 1-19 and 20-68; Schmitt, passim.

¹⁹ Alberti, *On Painting*, trans. Grayson, 20. See Spencer, passim, on the influence of Quintilian and Cicero.

²⁰ *Catoptrics* is commonly attributed to Euclid, although a strong case has been made by Heiberg for an attribution to Theon of Alexandria, although Burton contends that Theon revised the original text in the fourth century A.D. (see above footnote 10). This contention has, in its turn, been argued by Knorr who makes a strong case for attribution to Euclid. Heiberg, Vol. 7, 283-343; Knorr, passim. See Smith, 15-16, for further detailed discussion on possible influences on Ptolemy and footnote 45, 82 for differences in approach.

²¹ Gadol speaks of Ptolemy in terms of his work on astronomy, 151, 153-155, 195, 199, and on geography, particularly 180-186, 197-199, but fails to discuss any link to Alberti's ideas on visual perception; Borsi, passim, similarly makes no reference to Ptolemy.

²² For comparative passages, see Smith, 98 and Alberti, *On Painting*, trans. Grayson, 37-38. It is interesting to note that Alberti discusses the use of the Latin word *curvus* in much the same way as Smith does in translation, adding strength to the argument that he had in fact

rays as falling into three categories: the centre point; the median ray; the extrinsic ray.²³ Here, Alberti describes the “visual triangle” as being made up of three rays which measure on behalf of the line of sight. The extrinsic ray measures quantity across the surface between two points (supporting the idea of a “line of sight”) either in terms of height or width. From this Alberti describes the “visual triangle” from the eye, outwards towards the endpoints of the visual plane and connected across the line of sight to complete the shape. The median rays are enclosed by the extrinsic rays and move across the surface of the triangle to establish focus and colour quality.²⁴ The centric ray is described as the most “keen and vigorous” of the rays, its position and distance determining sight itself. Like Ptolemy, Alberti shows little interest in delving beyond the purely physical to ponder the effects of sight once an image has entered the brain itself. There is no interest in discussing the interaction of memory or of emotion:

This is not the place to argue whether sight rests at the juncture of the inner nerve of the eye, or whether images are represented on the surface of the eye, as it were in an inanimate mirror. I do not think it necessary here to speak of all the functions of the eye in relation to vision.²⁵

This purely scientific view of vision no longer prevails thanks to the efforts of modern scholars who, through far-reaching research, have extended the study of visionary experience.²⁶ In the past, the world of science has failed to take

read Ptolemy in an original Latin version.

²³ Alberti, *On Painting*, trans. Grayson, 40-41. For Ptolemy’s discussion on the “visual cone” see Smith, Section 20, 77.

²⁴ Alberti suggests that an object appears more obscure the further away the viewer from the object because of the median rays.

²⁵ Alberti, *On Painting*, trans. Grayson, 41.

²⁶ In addition to the work of Amorim et al., discussed in more detail in the main text, interesting research has taken place in a number of areas. See Cowie, in relation to perception of surface orientation; Lécuyer and Durand, on the infant’s ability to discriminate between two and three dimensions; Sambrook, on the cognitive basis for human imitation.

account of the differentiation of the physical action and the brain function involved in seeing an object, in addition to the emotional experiences brought to the action by the person viewing the object. While our eye might act as a camera, the image then enters what E.H. Gombrich calls a “black box”, the complex nervous system which is unique to any individual. Once the visual stimulation enters this “black box”, there is no way of measuring the effects, of appreciating an individual’s actual visual experience, or subsequently of comparing that experience against another.²⁷ How a human being perceives three-dimensionality is a mystery, according to H. Bouma, as yet uncovered:

How does our visual system accomplish the extraordinary operation of converting these highly variable two-dimensional distributions at either retina into one stable three-dimensional perception of the surrounding visual world? There can only be one complete answer, which is that we do not yet know.²⁸

The shape of a three-dimensional object is initially determined on the basis of three pieces of information: the physical properties of the object itself; the degree of light, which enables the information to reach the viewer; the state of mind of the viewer when visual contact is made. It is not simply a matter of physical eye contact, but also of emotional experience. The shape of an object is the sum total of a number of different encounters the viewer may have had with the object itself or with versions of that object:

If, for example, we are shown a melon that we know to be a mere hollow leftover, a half shell whose missing part is not visible, it may look quite different from a complete melon that on the surface presents us with the identical sight. A car known to contain no motor may actually look different from one known to contain one.²⁹

The visual perception of an object is unique to the individual based on these terms of reference. When an artist sets about drawing an object, he brings to

²⁷ Gombrich, 1982, in *Mirror and Map*, 178.

the task, the physical and emotional elements of his viewing of the object in question (as described above), and a technical repertoire in order to transfer the image to paper. He also brings an all important element to the task, that of quality of visualisation and of memory.

Recent scientific research has uncovered important facts about how people see and how they seek to reconstruct what they have seen. In 1998, Michel-Ange Amorim, Jack Loomis and Sergio Fukusima published a paper entitled, *Reproduction of object shape is more accurate without the continued availability of visual information.*³⁰ Their hypothesis was as follows:

The hypothesis motivating this research was that a change in an observer's viewpoint even when the configuration is no longer visible induces an imaginal updating of the internal representation and thus reduces the degree of foreshortening.³¹

Three experiments were carried out, under controlled conditions, to determine ability to reproduce a visual configuration of three small glowing balls in a darkened room. In experiment 1, the observers reproduced the three ball configuration on a table set two metres away, having been given "viewpoint change" instructions.³² In experiment 2, the observers reproduced the configuration on a closer table while viewing the balls, and then from memory. In experiment 3, the observers carried out the task, having memorised the configuration, in terms of the real and the imagined perspective change:

²⁸ Bouma, 11-12.

²⁹ Arnheim, 47.

³⁰ Amorim et al., Laboratoire de Physiologie de la Perception et de l'Action, Collège de France - CNRS, Department of Psychology, University of California, Department of Psychology and Education, University of São Paulo, respectively.

³¹ Ibid., 69.

³² The observers replaced the balls on a near table, while imagining standing at the distant table. In a second instruction, the observers viewed the configuration and, once it was removed, they walked in darkness to the distant table and replaced the triangle of balls. The replacement of the configuration was more successful (less foreshortening) in the

The results of the three experiments indicate that the continued visual presence of the target configuration impeded imaginary perspective-change performance and that an actual change in viewpoint does not increase reproduction accuracy substantially over that obtained with an imagined change in viewpoint.³³

As far as the present study is concerned, this is interesting and significant information, because the findings underline the talent, latent within the human brain, for remembering and reconstituting shapes, the mind able to reference, compute and reconfigure in a physical medium, an area not explored by Renaissance theorists.³⁴ The study also went some way to analysing the results in terms of the quality of the reconfigurations and found that observers tended to overestimate width in relation to distance and depth:

Indeed, when we view a 3-D shape, we perceive considerable distortion in the form of a compression of its depth relative to its width. However, accompanying our perception is implicit knowledge that is closer to the real shape of the object; perhaps, this ‘cognitive representation’ is more accurate because our vast experience with changing perspective tells us that the 3-D object looks different from any given perspective than what we get from multiple perspectives.³⁵

Classical theorists provided scientific information to establish the context in which people perceived objects, but the explanation of the way in which people saw and the quality of that vision, was somewhat passed over. Alberti perpetuated these ideas in his work, as Kemp points out: “to impress fellow students of the liberal arts”, but not to probe the questions behind the complications of two- and three-dimensional vision or to help the artist to

second of these scenarios. Details of the procedure appear *Ibid.*, 73-74.

³³ Amorim et al., 69.

³⁴ Interestingly these experiments were carried out in darkness. This links to research which found that many people avert their gaze (or close their eyes) when working on a difficult problem or while trying to remember something. Similarly, many musicians close their eyes when playing, conducting, or listening to music, in an effort to visualise and conceptualise.

³⁵ Amorim et al., 83.

understand the qualities of his own visual perception. Therefore, at first, the context in which quattrocento activity took place was one of classically proven theories on general matters associated with the practice of art in whichever form. However, the subsequent stages of such discussion and debate were carried forward by Alberti and others, who attempted to bring such theories into the realm of the working artist in a more practical and meaningful sense.

QUATTROCENTO THEORY AND PRACTICE

The spatial revolution that gained pace during the fifteenth century saw a concentration on the creation of believable space and of figures that existed within a realistic environment. The completion of Alberti's *De Pictura* in 1435 heralded an age of artistic renewal. In writing the original text in Latin Alberti showed reverence to the intellectual community of Ferrara. The translation of the text into Italian enabled the ideas to be used more widely in workshops where artists were unlikely to have any Latin.¹ Franco Borsi's contention that Alberti made a "fitting and opportune contribution" to the theory of art is an accurate one, for while others had written on perspective before him, Alberti brought together a number of different aspects of the painter and sculptor's art in a form which could be understood and utilised by a wider audience.²

The extent to which the legacy of the work of Alberti and his fellow theorists encouraged the aspirations of the quattrocento artist is open to debate. An exploration of the contribution of such individuals is necessary in setting in

¹ Vasari provides a useful summation of Alberti, establishing his artistic level, but conceding his influence: "Now none of our modern craftsmen has known how to write about these subjects, and so even though very many of them have done better work than Alberti, such has been the influence of his writings on the pens and speech of scholarly men that he is commonly believed to be superior to those who were, in fact, superior to him." Vasari, trans. Bull, 208. See Grayson for a portrait of Alberti. Alberti dedicated several works to his scholar friends, *De equo animante*; the *Theogenius*; the *Philodoxeus*; the *Ludi Matematici*. See Borsi, 293; Baxandall, 1963, 306-307. Alberti, *On Painting*, trans. Grayson, 3-4. Echoes of Alberti's treatise are found in other writers of the time, notably that of Angelo Decembro, *De politia litteraria*. See Baxandall, 1963, passim.

² Other treatises on perspective include that of Biagio Pelacani (died 1416) whose treatise *Questiones Perspectivae*, transcribed in 1428, is currently in the Laurenziana: Federici, 242; Borsi, 297-298. *Della prospettiva* (Ricciardi Library 2110), once thought to be by Alberti and written before 1435, is now widely considered to have been written by Toscanelli: Parronchi, 583-585; Borsi, 297-298.

context the background against which the quattrocento sculptor worked. While a distinct training method for sculptors might be reasonably expected, did the traditions of the century ensure that the sculptor was creatively inspired to build and develop a methodology in relation to drawing, for example, that would suit his needs? Were there clear precepts on which to build?

Alberti's discussion on the theory of perspective leads on from his discussion on visual perception and owes much to the work of Brunelleschi, whose method Alberti claimed to popularise.³ Antonio Manetti outlined

Brunelleschi's contribution to the science of perspective in his *Life of Brunelleschi*:

During the same period he propounded and realised what painters today call perspective, since it forms part of that science which, in effect, consists of setting down properly and rationally the reductions and enlargements of near and distant objects as perceived by the eyes of man: buildings, plans, mountains, places of every sort and location, with figures and objects in correct proportion to the distance in which they are shown. . . . We do not know whether centuries ago the ancient painters -- who in that period of fine sculptors are believed to have been good masters -- knew about perspective or employed it rationally. . . . Through industry and intelligence he either rediscovered or invented it.⁴

Brunelleschi's application of geometrical principles to perspectival representation had already been demonstrated in paintings made of the Baptistery and the Palazzo de' Signori in Florence. Although these paintings are now lost, Manetti's description of events serves to engender a modern day understanding of how miraculous such a scheme must have seemed and the enthusiasm with which Brunelleschi involved his colleagues.⁵ Kemp, in his

³ Alberti dedicated the Italian version of his text to Brunelleschi. Alberti, *On Painting*, trans. Grayson, 34-35.

⁴ Manetti, 42.

⁵ *Ibid.*, 42-46; Argan, 104-105; Borsi, 294. For a more in depth look at Brunelleschi's

book, *The Science of Art*, has reconstructed these panels with reference to the information passed down from Manetti, and while the biographer's information is limited in terms of a need to tease out some of the text, Kemp's reconstruction illuminates Brunelleschi's "form of peepshow" which served to demonstrate the science to those willing to participate in the experiment.⁶

The artist who developed these ideas on perspective, particularly in painting, was Piero della Francesca. Building on the Platonic idea of the perfection of forms, Piero sought to use perspective as a way of controlling the form in space. While his treatise, *De prospectiva pingendi* was not written until 1474, many of his ideas were formulated in the 1430s and, as such, his work can be seen as a logical extension to that of Alberti.⁷

Little is known of Piero's life and practically nothing of his early education. Although there is no record of his birth, he is known to have been studying with Antonio Anghiari by 1436 and was working in Florence with Domenico Veneziano in 1439.⁸ In the years after his death he was remembered as a

methodology, see Wittkower, 1953; Argan, 103-121; Myers, 39-76; Klotz, *passim*.

⁶ Kemp, 1990, Figs. 7 and 8, 12; Appendix II, 344-345. See also Trachtenberg, Pls. 40-42, showing John White, Richard Krautheimer, Martin Kemp's reconstructions respectively, 52-54. See also White 1949, 1951; Kemp, 1985.

⁷ For a full account of the *Prospectiva pingendi* see Piero della Francesca, ed. Nicco Fasola.

⁸ Clark, 1969, 11-12, questions whether this was indeed Piero della Francesca's first visit to Florence; Lavin, 1992, 11, supports 1439 as the date of Piero della Francesca's first Florentine visit. Piero was assistant to Domenico Veneziano on his first major Florentine work, the frescoes on the Life of the Virgin, on the wall of the principal chapel of San Egidio, the church of Santa Maria Nuova Hospital. Documentary evidence shows that Domenico Veneziano was paid between September 1439 and 1445. Scrawled in the margin of one such document is the fact that Piero della Francesca, under *Pietro di Benedetto da Borgo a San Sepolcro*, was with Veneziano at that time. "That is all that we are told; and it is thus casually, in 1439, that Piero first appears in history", Hendy, 21. See also Crowe and Cavalcaselle, 1911, Vol. 4, footnote 1, 140; Paolucci, 81; Centauro, 32. Domenico Veneziano's interest in perspective and his subtle use of light was to greatly influence Piero's later works. During his time in Florence Piero would undoubtedly have seen the *Trinity* by Masaccio, a revolutionary study in mathematical perspective.

mathematician and less as a painter, and from the sixteenth to the nineteenth century his reputation rested on the publication of three theoretical treatises, works which influenced three-dimensional representation for centuries to come, in particular the work of the Impressionists.⁹

Piero della Francesca's contribution to art is important on several levels, but, like Alberti, he contributed, in the main to the general tenet of artistic thinking. His treatise, *De Prospectiva pingendi*, provided the artist with a means of using theories on perspective in practical application.¹⁰ He moved away from Alberti in attempting to investigate aspects of the work of Euclid, such as the nature of proportional relationships, and in bringing together geometrical demonstrations with arithmetical ratios.¹¹ The treatise is made up of three books, the first outlines the theoretical underpinning of the treatise, the second and third

⁹ *Trattato del abaco* (on arithmetic); *Libellus de quinque corporibus regularibus* (on geometry); *De prospectiva pingendi* (on the theory of perspective for use in painting). Davis, passim; Lavin, 1992, 7. See Boime's article which traces links between Seurat and Piero della Francesca, particularly through their mutual interest in the science of mathematics and their "compositional affinity", and Lavin, 1992, 9-10.

¹⁰ The two original manuscripts are housed in the Biblioteca Palatina in Parma (1576) and in the Biblioteca Ambrosiana in Milan (Cod. Amb. C. 307 inf.). The first is in Italian, in Piero's hand, the second, which is written in Latin, was translated, under Piero's direction, by his friend, Matteo dal Borgo. It was written by a scribe, but some autograph notes by Piero do appear. This may be the copy which was owned by Federigo Montefeltro and so must have been completed before his death in 1482. Clark, 1969, 71. Later versions exist in the Biblioteca Ambrosiana, Milan (Cod. Ambr. 200 inf.), sixteenth century in Italian (without illustrations); British Museum, London (Cod. 10366), fifteenth century in Latin; Bibliothèque Nationale, Paris (Cod. lat. 9337), sixteenth century in Latin; Bordeaux (Cod. 516), sixteenth century in Latin. Elkins, 220.

¹¹ Piero della Francesca's desire to reconcile Euclid's ideas on geometry with arithmetic is discussed and illustrated in Kemp, 1990, 27-35. A manuscript, executed for Francesco dal Borgo, the superintendent for the work on Pius II's *camera*, still exists in the Biblioteca Vaticana (cod. Lat. 1329). Completed in 1458, a miniature shows Latin versions of works by Euclid and Ptolemy, and of an algebraic treatise. Another manuscript, made for him between 1457 and 1458 of works by the same authors in addition to Archimedes, whom he is said to have translated, is in Paris (Bibliothèque Lat. Coll., Nouv. Acq. Alt. 1538). Piero was called in to decorate the *camera* and so was able to capitalise on the company of a fellow townsman and mathematician. Lightbown, 1992, Fig. 74, 179-180. See Wittkower and Carter for details of his methods in relation to the construction of perspectival representation. For Piero della Francesca in an applied situation, see Lavin, 1972, for discussion on the *Flagellation* and 1981, for a discussion on the *Baptism of Christ*.

concentrate on the creation of perspective.¹² Piero begins by echoing the work of Alberti, but clearly highlights the most important discussion point within the treatise, that of the representation of perspective:

Painting contains within itself three principal parts, drawing, composition, and colouring. By drawing we mean the profiles and contours within which things are contained. By composition we mean how these profiles and contours may be situated proportionately in their proper places. . . . Of these parts I intend to deal only with composition, which we call perspective; including however, certain elements of drawing, because without that perspective cannot be demonstrated.¹³

His use of words also alters the stress of his treatise from that of Alberti, for he uses *disegno*, *commensuratio*, *colorare*, where Alberti used *circonscrizione*, *composizione*, and *recezione di lumi*. The use of the word *commensuratio* shows his hand, for, as Clark points out, “measurement is indeed his subject”.¹⁴

De Prospectiva pingendi is about more, however, than measuring space, it has much to do with the measurement of form, a subject which occupies much of the third book of the treatise. Its content urged the artist, whether painter or sculptor to give thought to creating perfect form through the plotting of co-ordinates. Here, Piero maps out every area of the head by marking reference points and tracing them back to the eye, in a series of drawings called *Measured Heads*.¹⁵ The elaborate method shows a clear mind and an artist of remarkable spatial vision, able to see flat geometrical forms in three

¹² See Elkins, 228, for a detailed outline of the treatise.

¹³ Clark, 1969, 71, citing from Piero della Francesca’s introduction to *De Prospectiva pingendi*.

¹⁴ *Ibid.*

¹⁵ Kemp, 1990, Fig. 47, shows the projection of the profiles of the horizontal sections of a human head; Figure 48, shows the projection of marked points on a human head in lateral elevation; Figure 49, shows the perspective projection of a tilted head. This would seem to have been used for the Sleeping Soldier in his *Resurrection of Christ*, Palazzo Communale, Borgo San Sepolchro. See also Bertelli, Figs. 150 and 151, Milan, Biblioteca Ambrosiana, col. S.P. 6 bis, fol. 81r and 82v, 151-164, passim for discussion on the effects on Piero’s work of *De prospectiva pingendi*.

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discussion and have art seen as a more scientific and thus more intellectual pursuit.¹⁹

It is in this atmosphere that Leonardo da Vinci became involved in the argument. Leonardo's writing bridges a gap between the humanist and court scholars and his artistic brethren, for Leonardo, with practical experience to back up the weight of his arguments, might be expected to move beyond the theoretical. In the sixteenth and seventeenth centuries several treatises were considered to be by Leonardo. The oldest manuscript, the *Codex Vaticanus Urbinas Latinus 1270*, is now preserved in the Vatican Library. This manuscript is a compilation of original manuscripts by Leonardo entitled *Libro di Pittura di M. Leonardo da Vinci, Pittore et Scultore Fiorentino*.²⁰ Evidence suggests that the compilation was produced from around eighteen manuscripts, over half of which are now lost, although a number still exist in the master's hand.²¹ The collection of manuscripts was inherited by Leonardo's companion, Francesco Melzi, who kept them until his death in 1570, when his son Orazio inherited them, finally disposing of the whole collection by 1590. It is logical

"Renaissance Aristotelianism".

¹⁹ From the point of view of being a scholar, knowledgeable in philosophy, religion and sociology, Alberti was well-suited to transpose the visual arts onto a new and respected plane alongside science and mathematics. For a useful view of Alberti's philosophical attitude, see Blunt, 1940, 3-7.

²⁰ This codex was in the library of the Dukes of Urbino and formed part of the collection of Francesco Maria della Rovere, the last duke, who died in 1631. The books passed to the Popes in 1626 and to the Vatican in 1657. The book (150 × 210 mm) consists of 331 numbered sheets and is bound in vellum. The scribe was probably a Lombard which is evidenced by his language. The spelling and punctuation is poor and it is obvious that the scribe was being supervised for there are corrections in the handwriting of two others. Richter, 6. See also Richter, Appendix One, 393-399, *History of the Manuscripts*; Appendix Two, 400-401, *Index of Manuscripts*.

²¹ The copyist provides this information in his notes, pointing out that each of the eighteen manuscripts had a distinctive seal. Richter, 6; Farago, 4. Four passages in the *Parte Prima* exist in Leonardo's hand. Additional drafts and notes form around 6,500 pages. Veltman, 10. Veltman also suggests a figure of 100,000 for the drawings. Veltman, 12. See also Pedretti, 1965, 121-128; Farago, Appendix 2, 424-427.

to conclude that the *Codex Urbinas* was compiled while the collection was with Francesco Melzi, who may have had a hand in its compilation.²²

In his argument in support of painting, Leonardo is concerned in demonstrating the strength of the visual sense over all the other senses and much of the continued argument concerns the relative worth of seeing over hearing:

Now consider what is the more damaging monstrosity, to be blind or to be mute. If the poet, like the painter, is free in his inventions, [the poet's] fictions are not as satisfying to men as paintings [are]. For while poetry extends to the figuration of forms, actions, and places in words, the painter is moved by the real similitudes of forms to counterfeit these forms.²³

The greatest passion in Leonardo's argument in support of painting, is the reverence he pays to the eye itself, "the window of the soul".²⁴ Unlike the ancient writers on optics, Leonardo goes further in questioning the reception of image, moving it from the purely physical theory of light rays reaching an object, to part of the human being's emotional and imaginative psyche "For those who contemplate it, the beauty of the universe is mirrored in the eye, which is of such excellence that anyone who consents to its loss deprives himself of the representation of all the works of nature".²⁵

Leonardo reveres the power of the eye above all else. In his comparison of painting and music, he talks of music, not in its own terms, but in terms of its similarity with the eye. He considers music "the sister of painting since it is

²² His hand appears on three blank pages in the codex, the word *Meltius* written on folios 78b and 79a, with *Mel.* on folio 85b. Richter, 7. Farago suggests that Melzi must have been the compiler of the codex during the decades when the debates on the arts were most popular in Italy. Farago, 16. Dating is possible by linking passages to related scientific researches Leonardo was undertaking at the time. Farago, 15-16.

²³ *Ibid.*, Chapter 19, 209.

²⁴ *Ibid.*

²⁵ *Ibid.*, Chapter 24, 228-229.

subjected to hearing, a second sense to the eye . . .”²⁶ The argument highlights not music versus painting, but rather hearing versus seeing, supporting the neoplatonistic view of the eye as the greatest of the senses. To Leonardo, music is indeed a grace to the ear but while it delights the listener, it fades and dies, lacking the permanence of a painting. Music is seen as superior to poetry for the musician can present sounds on various levels at the same time, creating harmonies which please the ear, in the same way that the painter can present “harmonic proportionality” in terms of the placement of figures and their relationship to each other. For these reasons poetry comes behind painting and music: “According to this, the poet remains as far behind the painter in the figuration of corporeal things as he remains behind the musician in the figuration of invisible things”.²⁷

Sculpture takes last place in Leonardo’s classification of the arts and on sculpture he is perhaps most severe, claiming that the art of sculpture “takes less labour of *ingegno* than painting”.²⁸ Sculpture is seen as mechanical and sculptors are considered to be people with little recourse to any kind of artistry:

Sculpture is not a science but a very mechanical art, because it generates sweat and bodily fatigue in the executant. The simple measurements of members and the nature of movements and poses alone are enough for such an artist . . .²⁹

The argument that a sculptor is charged with creating something in three dimensions, correct from every angle, holds little weight with Leonardo who claims that a sculptor with the correct knowledge and information on three-

²⁶ Ibid., Chapter 29, 241.

²⁷ Ibid., Chapter 32, 249.

²⁸ Ibid., Chapter 36, 261. The word, according to Farago, is indistinguishable from “*fantasia*”, which is used earlier in the same sentence as an alternative for “*imaginatione*”.

²⁹ Ibid., Chapter 43, 257.

dimensionality (just as the painter) should have no difficulty in creating in the round. The need for a sculptor to continually study his work from different angles is summarily dismissed as simply adding to body fatigue, certainly not something which might tax the artist mentally or emotionally (Chapter 36). To Leonardo it is enough to see the figure from the front and from the back and to work between these two images to create in the round.³⁰ But Leonardo uses this simply to support his argument, for elsewhere he suggests that the sculptor has to “make many contours for each figure in the round so that the resulting figure will be graceful from all views”.³¹ Later discussion will see Leonardo making use of both methods in his own drawings for sculptural pieces.³²

To the argument that the sculptor has little room for error, i.e. that once he has “taken away” he cannot readily put back, Leonardo shows little sympathy, for, according to Leonardo, if the sculptor was able to do his calculations correctly in the first place there should be no room for error, surely suggesting that the sculptor must have a highly developed three-dimensional sense. Similarly, although he sees painting as having “ten varied discourses . . . light, darkness, colour, body, figure, position, remoteness, nearness, motion, and rest”, he sees the sculptor as dealing only with “body, figure, position, motion and rest”.³³ Leonardo suggests that the sculptor has little need to bother about light, which nature will take care of, nor need he worry about perspective, which might

³⁰ Leonardo again returns to the claim that the sculptor need only make two figures, one from the front and the other from behind. *Ibid.*, Chapter 37, 263.

³¹ *Ibid.*, Chapter 36, 259.

³² Benedetto Varchi’s consultation project brought forth a clear view from Benvenuto Cellini on this subject, “A piece of sculpture is begun from one point of view, then it is turned little by little so that, with the greatest exertion, a hundred views of it and more are made”. This opinion led to Cellini’s assertion that sculpture was seven times better than painting, because sculpture gave seven more views. Richter, 1970, 86-87. See also Richter, 82, for Michelangelo’s letter to Benedetto Varchi (Rome, 1549); Quiviger.

suggest that the sculptor never contemplates the placement of the finished piece of sculpture. To relief sculpture, Leonardo does give some credibility, for he can find a link to the science of perspective: “Now the speculations of low relief are greater than of full relief, without any comparison, and low relief approaches the grandness of speculation in painting insofar as it is bound to perspective”.³⁴

Leonardo and the theorists are silent on the question of how a human being converts “two-dimensional distributions at either retina into stable three-dimensional perception of the surrounding visual world” or how the quality of such perception might manifest itself.³⁵ Any attempt to find an indication as to how the artist might apply such theories in a practical sense remains elusive. This is surprising given Leonardo’s celebration of sight over all other senses. Leonardo clearly believes that the inventive powers of the artist are all important (*ingegno*) and that such inspiration is instilled in his characters by means of *disegno*. However, the journey from the imagination through the mechanical state of production or the quality of such elements is never fully discussed other than as a natural talent:

Among [the latter] painting is foremost. It cannot be taught to someone whom nature does not endow, as happens with mathematics where the student takes in as much as the master reads him about it. It cannot be copied, as happens with letters, where the copy is worth as much as the original.³⁶

³³ Farago, Chapter 36, 261.

³⁴ Ibid., Chapter 37, 263.

³⁵ Bouma, 11-12. See footnote 28, 11.

³⁶ Farago, Chapter 8, 187.

The Practical Application of Theory in the Workshop

Leonardo's claim that artists had to be born with natural talent, and that such talents could not be taught, might somehow set in context the Renaissance attitude to training techniques. While it might reasonably be supposed that artists underwent a structured and progressive training regime designed to develop their talent, the evidence which remains to the modern day reader does not suggest any commonality in workshop approach, indeed there is no evidence to support a claim that any artist underwent such training. While a fairly simplistic claim can be made for a clear progression of sculptural preparation from drawing to wax sketch to marble figure or from a bozzetto to a full scale model to a completed work, such arguments give a false impression as to the complexity of the range of methods that may have been used, and point to there being a characteristic universal method that most probably did not exist. While methods of preparation can be mapped in certain isolated cases (and mapped fairly accurately), details do not exist of a single complete project where the initial drawing, related subsequent sketches, bozzetti, models and completed sculpture can be studied.

Alberti's *Della Pittura* presented perspectival representation in a formal manner and so encouraged the artist to think in a spatial way, but also provided a number of artistic ways to aid the artist in presenting true images. The use of the "veil", while seeming to present a very mechanical approach, would have been a useful teaching tool for the young artist starting out on study and may well have been a workshop aid in drawing or in preparing panels.³⁷ It must also

³⁷ Alberti, *On Painting*, trans. Grayson, Fig. 12, 66; Borsi, Fig. 295 for the *velo* as illustrated by

have encouraged visual conception in relief, for, as Alberti states, this was expected of a painting.³⁸ Leonardo again underlines the need for natural talent, however, emphasising that the veil should only be used as a time saving device:

Some of these painters examine things made by nature through sheets of glass or something else, or transparent veils, and they trace profiles on the surface of the transparencies. . . . Now this is to be praised in those who know how to make the *fantasia* approach the effects of nature, but only if they use these discourses to rise above labor, and not to lack some detail in the true imitation of these things, which should [be to] faithfully convey the resemblance.³⁹

Cennino Cennini's approach in *Il Libro dell'arte* or *Craftsman's Handbook* is altogether different from Alberti's, and while there may be an over concentration on the use of materials, it contains valuable advice and information for the practising artist. Vasari talks of Cennini in the *Life* of Agnolo Gaddi:

Cennino di Drea Cennini da Colle of Valdelsa also learned painting from Andrea. He was very fond of his art and wrote a book describing the methods of working in fresco, in tempera, in glue and in gum, and also how to illuminate and all the ways of laying on gold. This book is in the possession of Giuliano, goldsmith of Siena, an excellent master and fond of these arts.⁴⁰

Cennini's *Libro dell'Arte* which was written early in the fifteenth century, reflects the traditions of trecento artistic practice.⁴¹ It is significant that this

Vignola in the *Due Regole di Prospettiva Pratica*, 1583; Fig. 296 for Dürer's *Artist Drawing a Lute*, 1525; Fig. 297, the *velo* and *quadratura* in Dürer's *Artist Drawing a Reclining Woman*, c. 1525.

³⁸ "If I am not mistaken, we do not ask for infinite labours from the painter, but we do expect a painting that appears markedly in relief and similar to the objects presented." Alberti, *On Painting*, trans. Grayson, 67.

³⁹ Farago, Chapter 39, 271.

⁴⁰ Vasari, trans. Gaunt, 161.

⁴¹ There is some dispute as to the dating of the work. Mrs. Merrifield's translation of 1848 cites a date of 31 July 1437. Ames-Lewis suggests it was written at the beginning of the quattrocento. Ames-Lewis, 1981, 1; Hale suggests a date in the 1390's, 77; Bambach, in her

treatise covered such a range of work from fresco to illumination, preparing papers and colours, and working in gold, for it reflects the range of activity that must have gone on in the workshops of the time. The reflection of a range of workshop practices goes some way to understanding the artistic make-up of the early quattrocento artists, practice which was established in the trecento and which seems to have continued through the quattrocento. While such tradition may be looked upon as being limiting, much of the information in Cennini's treatise is echoed in the later literary work of Leonardo, and much of the technical information remained the order of procedure throughout the century.

Cennini stresses the importance of being able to “draw very correctly” and entreats the artist to pay heed to the light source: “Contrive always when you draw that the light be softened, and the sun strike on your left hand, and in this manner you should draw a short time every day, that you may not become tired and weary”.⁴² The art of design is also clearly stressed: “you should endeavour to draw and instruct yourself in design as much as you can”. The copying of the great masters (“the best and most celebrated”) is stressed in Chapters 27 and 28, alongside a recommendation that the artist draw continually from nature, “the best of all possible examples. . . . And continuing always and without fail to draw something every day, how little soever it may be, you will certainly attain excellence”.⁴³

Later, in Chapter 13, Cennini specifically refers to what probably manifested

essay, *Technique and Workshop Practice in Filippino's Drawings*, cites 1400 as the probable date for the work. Goldner et al., 21.

⁴² Cennini, trans. Merryfield, Chapter 8, 6.

⁴³ *Ibid.*, Chapter 28, 15.

itself as hatching: “Draw lightly, leaving your lights and your half lights and your shades gradually, and going over the latter many times with your pen”.⁴⁴

A theme runs throughout this first part of the treatise which stresses the importance of shading and of creating in three dimensions. Specific mention is made of drawing in relief: “Shade with ink and water to leave the ground of the pencil for the middle tints, and to use white for the lights”, and, specifically when drawing and shading on tinted papers, the artist is encouraged to practise shading: “with water and ink wash over the principal shades and proceed to deepen them properly”.⁴⁵ In Chapter 31 there is an alteration to the technique when the artist uses a hair pencil (*pennello mozzetto*) which must be kept flat for the purposes of shading:

When you can shade well, take a drop or two of ink, add it to the water, and stir it well; and then in the same manner fill in the darker shades to their utmost depths -- always remembering, while shading, your three divisions, the first consists of shades, the second of the colour of the ground, and the third of the lights.⁴⁶

This particular shading would seem to be a softer version of hatching which would have been carried out with the point of the pen. In this case, the *penello mozzetto* (Cennini explains how this is made Chapter 65, 38) could not achieve the same result, as the hair pencil did not terminate in a point and so this fine line hatching would not be possible. Cennini’s explanation of the application of white heightening and its preparation, as well as its uses, recalls many of the drawings by artists later in the century, particularly the silverpoint work of

⁴⁴ Ibid., Chapter 13, 8. A Translator’s note, footnote 1, 115, suggests that this shading, particularly with stile and pen, relates to what was later known as hatching, i.e. building up areas of shade with a series of lines from the stile or pen. This is different, it is suggested, from the technique discussed in Chapter 31, where the artist is instructed as to how to draw with a hair pencil.

⁴⁵ Ibid., Chapter 29, 15 and Chapter 31, 16.

⁴⁶ Ibid., Chapter 31, 17.

Filippino Lippi. The advice on preparation of paper, use of silverpoint, as well as pen and ink, obviously served later generations of artists.⁴⁷

The encouragement to draw and to work in a systematic manner is continued throughout Cennini's treatise. When preparing frescoes and panels, the artist is encouraged to use drawing as an integral part of the preparation process:

“Draw with a light hand, and shade the hollow parts and the faces as you did with the pencil, and with the same pen with which you made drawings (*penneggiasse*)”.⁴⁸ Similarly, in line with his systematic approach, the artist takes the next step:

Put a few drops of ink into a glass half full of water, and with a pointed pencil of minever mark over the outline of your design. Then with the feather part of the pen brush away the charcoal. With some more of the ink, and a flat pointed pencil of minever, shade the depths and the shadows of the face, and you will have made an agreeable design, which will cause all men to fall in love with your works.⁴⁹

While Cennini's treatise is often discussed as being a highly technical manual, the tone of much of the rhetoric stresses the importance of relief, of differentiating between height and depth at the drawing stage of the artist's preparation. However, such advice is quoted in general, non-specific terms and does not address the painter or the sculptor directly. Much of the advice is designed as a guideline for those already in possession, through natural talent, of the basic ability to draw.

⁴⁷ There are many fine examples, but in the work of Filippino Lippi there are examples of a great many applications of hatching and heightening. See the Metropolitan Museum of Art's catalogue, *The Drawings of Filippino Lippi and His Circle*, 1998, which illustrates not only Lippi's technique but those of Botticelli, Fra Filippo Lippi, Piero di Cosimo, Raffaellino del Garbo and Raphael. Goldner, et al.

⁴⁸ Cennini, trans. Merryfield, Chapter 122, 73.

⁴⁹ Ibid.

Ghiberti's contribution to the debate was made through the *Commentarii*, Book One which deals expressly with the classical past and the quest for understanding of perspective and the laws of optics. In this, Ghiberti's work has much of the tone of Alberti's discussion. Ghiberti's discussion of art centres around an explanation of the contribution of the ancients, including the invention of drawing, sculpture and bronze casting. He occasionally addresses the artist: "he, [the craftsman] must be proficient in perspective, and above all, a first-class draughtsman, for drawing (*disegno*) is the head and front of both painting and sculpture".⁵⁰ He also addresses the sculptor: "Anatomy must be studied, that the sculptor may know the disposition of bones, muscles, nerves and ligaments in the body and may fashion his statues accordingly".⁵¹ On the whole, there is little in the way of practical or detailed advice on the practice of painting or sculpture that might be of use to the craftsman in the workshop. As with Alberti and Leonardo, he takes for granted that the artist should be able to do certain things naturally: "There are things which cannot be taught, and to get this graceful air, nature must co-operate with the artist".⁵² The contribution of Book One of Ghiberti's *Commentarii* should be considered a complement to the literary discussion of the time and not an aid to the working artists in anything other than in a general sense.

Those texts devoted entirely to the art of sculpture concentrated on the practical aspects of creating in three dimensions, normally on a large scale and avoided, as did many treatises on painting, discussion on the aesthetic aspects of artistic execution. Alberti, in *De Statua* written between 1432 and 1434, concentrates

⁵⁰ Courtauld Institute of Art, 6.

on supplying the sculptor with various aids with which to create statues in the same way that a carpenter might use a set-square or plumb-line.⁵³ Such discussion is consistent with that of the use of visual aids in *Della Pittura*. Like Leonardo, Alberti alludes to those who might add during the artistic process and those who might take away, categorising artists in three groups: those who worked in wax or clay, whom the Romans called *fictores* (modellers) and the Greeks *plasticous*; the sculptors, who created by “taking away”; the silversmiths, who worked by addition during the process of hammering and spreading out the shape of their finished piece.⁵⁴ The two main “aids” created by Alberti in *De Statua* come under the headings of those which are designed to aid *dimensio* (the accurate measurement of individual parts of the body and their relation to the body as a whole), namely the *exempeda* and the *moveable squares*, and *finitio* (the means by which the sculptor measures the inclines and curves of the body) the *finitorium*.⁵⁵ While the plotting of co-ordinates would go some way to placing a figure within a block of marble, what then happened in the process is not dealt with by Alberti.

In the absence of documentary evidence to support a well-defined and progressive training schedule for the working artist in a quattrocento workshop,

⁵¹ Ibid.

⁵² Ibid., 9.

⁵³ It is unclear when *De Statua* was first written. An early date is usually suggested because it was written only in Latin. Alberti's problems in writing *Libri Della Famiglia* in Italian are discussed in light of his claim that the first three books were “so rough and unpolished that one could not say that they were written in the Florentine tongue”, *Vita Anonima*, XCV. Watkins, 101-102. Alberti's exile had led to an education in several countries and so he was not confident in Italian at this period. See Borsi, 304 for discussion on dating and also 384 for a list of the editions of *De Statua* from 1547 until Grayson's edition in 1972.

⁵⁴ Alberti does not include painters as those who might be seen as “adding” and so differs from Leonardo in this respect.

⁵⁵ See Alberti, *On Painting and On Sculpture*, ed. Grayson, 125-135; Borsi, 304-307, Figs.

it is necessary to piece together a picture of what such activity might have been like. It is clear from Cennini's work that drawing was seen as an important part of the process and was used as part of the artist's every-day method. However, Cennini did not promote drawing as a way to experiment with form, but rather as a way of copying what was necessary within the workshop, in order that the styles and conventions of the master's business were carried on. To this extent, Cennini promotes trecento practices where copy drawing is advocated as professional practice and the benefits of experimentation, on any level, are not discussed. However, within the workshops, the model-book tradition had continued from the fourteenth century to give way to a freer form of reference material, the sketch-book, illustrating a more spontaneous and imaginative approach to studies which might range from unfinished sketches, to more finished forms.⁵⁶ Thus, the idea of sketching and drawing as a way of teasing out problems, of drawing for oneself, gained momentum, leading to a clear distinction between what might be conceived of as a casual sketch and what might constitute a drawing in the form of a presentation piece.⁵⁷

Those artists wishing to use drawings as a way of developing their technique -- particularly those working in the medium of sculpture -- had little support in any technical sense and, while the trecento practices promoted by Cennini were

318 and 321 for illustrations of the moveable squares, Figs. 319 and 320 for illustrations of the *finitorium*.

⁵⁶ See Ames-Lewis, 1981, 69-79 for a detailed account of the transition between model-book and sketch-book, as evidenced by the work of Pisanello.

⁵⁷ Francis Ames-Lewis has sought to establish the definition of a "presentation drawing" as distinct from a "contract drawing". A "presentation drawing" he defines as: "A carefully finished drawing given by the draughtsman to a friend, patron or potential patron". A "contract drawing" he defines as a: "Detailed compositional drawing approved by the patron, on the basis of which an artist was legally obliged by his contract of commission to produce the finished work". Ames-Lewis, 1981, 190 and 189 respectively. See Bambach Cappel for a discussion on the "stubborn" problem of classification in relation to Michael

perpetuated throughout the quattrocento, it is clear that those working in the medium of three-dimensional representation, had to look elsewhere for inspiration. Where they might have searched for and found such inspiration is the subject of discussion in the next chapter.

Hirst's use of the word *modello* (Hirst, 1992). Bambach Cappell, 1990, 497-498.

THE CONTEXT FOR EARLY DEVELOPMENT

A survey of the texts devoted to the theories and practices of the quattrocento provides a general view of the tenets upon which art was to progress throughout the next decades. The creation of believable space was of tantamount importance, to the extent of generating mathematically perfect structures within which several levels of action might be expected to happen. Similarly, artists were encouraged to study three-dimensional form and to strive to create credible figures of weight and plasticity: “No one will ever be able to paint a thing correctly if he does not know its every relief, and relief is more easily found by sculpture than by painting”.¹

The theoretical underpinning and practical advice provided to support those artists working early in the century does not show the promotion of any specifically detailed regime of training or of working practice for the painter or the sculptor. Such advice took the natural talent of the artist for granted, as expounded by Leonardo da Vinci.² Artists were expected to have a high quality of visual perception, an inherent ability in drawing, and a latent aptitude for personal development. A defined strategy for the development of the artist, whether specifically interested in painting, goldsmith work, working in relief or fully in the round, is disappointingly not evident.

¹ Alberti, *On Painting*, trans. Grayson, 92.

² See Farago, Chapter 8, 187.

However, Cennini does provide insight into the restrictive practices of the early workshops where artists were bound to copy the models long used to identify the character of the workshop. To this extent, drawing was considered a mechanical undertaking and artists were not encouraged to progress their own ideas or to experiment with new forms. This seems particularly true in the case of sculptors. While the painter is addressed directly in many of the texts, matters specific to sculpture are discussed only in the passing. However, in this context, the sculptor is little different from the painter, in that he is expected to possess the same natural talents and the same ability in terms of practical sculpting technique. Alberti's text in *De Statua* bears this out. The advice he gives to sculptors in providing various technical aids is entirely similar to those given to painters in *Della Pittura*, where the artist is offered general suggestions as to how practice can be improved, but little in the way of specific instruction.

While artistic practice developed as a matter of course, for the sculptor wishing to use drawing as a means of experimentation in the sculptural process, there was little encouragement to progress new ideas. If the sculptor were to use drawing as part of a given process, then such drawing had to move beyond the copying stage to a level upon which he could develop a characteristic technique unique to sculptural rendition. It is clear that such artists had to look beyond the workshop for inspiration. Where they may have found such inspiration is the subject of this chapter.

The significance of links between alternative kinds of design and the work of the sculptors working in the early years of the quattrocento has long defied investigation. Many sculptors did begin their early training with instruction in the goldsmith shop and in that of other related disciplines.³ They transferred their efforts to a new medium taking with them experience in working on small scale pieces of great intricacy and detail. The complexities of working on such a small scale had their source in another discipline -- that of the illuminator.

In the early decades of the fourteenth century an industry grew up around the art of illumination as a healthy economy raised demands for liturgical furniture and more ornate choir books, a reflection of personal, social and economic success. In a similar vein to the lack of autograph drawings of the fifteenth century, there are few surviving early drawings from miniaturists, and so it is difficult to differentiate between the many masters of the time in terms of individual style.⁴ The busy industry which grew up around artists such as Pacino di Bonaguida, who capitalised on demand, led to standardisation on

³ In all probability, Jacopo della Quercia was trained by his father who was a goldsmith. Similarly, it is likely that Ghiberti was trained in the work of the goldsmith by his stepfather Bartolo di Michele. Later in the century, and so continuing the goldsmith tradition, Riccio (1460-1532) is known to have trained as a goldsmith, while other noted sculptors enjoyed different early backgrounds, Bernardo Rossellino (1409-1464) and his brother Antonio (1427-1479) came from a family of stonemasons, while Benedetto da Maiano (1442-1497) originally trained as a woodcarver. While no certain documentary evidence exists for other sculptors of the quattrocento, it is not outwith the bounds of possibility that artists like Bertoldo di Giovanni (1420-1491) had experienced some level of goldsmith's training, given that his work involved commissions in precious metals. Verrocchio (1435-1488) is known to have trained as a goldsmith, abandoning the activity before 1457. Seymour, 1971, 20-22. In 1457 Verrocchio reported that he was no longer active in the goldsmith's trade, stating that neither he, nor his brother Tommaso was earning enough to "keep them in footwear (*chalsi*)", although caution must be employed in studying the *Catasto* records (exaggerations frequently occurring).

⁴ The tradition of illustrating manuscripts goes back to the ninth century, a time outwith the bounds of the present study. The collection in the Pierpont Morgan Library in New York is of specific interest. Since the founding of the Fellows of the Pierpont Morgan Library in 1949, a series of *Reports* have been published. The first fifteen of these publications included discussion on the principal acquisitions, but from the sixteenth onwards they also have a *Checklist* which provides an up-to-date bibliography. See also Voelke, particularly

layout and decorative vocabulary, reflected eventually in a style which differentiated the work of Florentine artists from that of those working in Bologna or Siena.

Pacino di Bonaguida is first mentioned in a document of 20 February, 1303.⁵ During the first decades of the 14th he was a leading exponent of the art of illumination, testified by the large number of works which remain. The establishment of a documented chronology of his life has proved difficult, but much has been based on the signature beneath the *Crucifixion* altarpiece in the Accademia.⁶ His two most famous pieces, a set of illuminated antiphonaries at the Collegiata of Santa Maria all'Impruneta, and an illuminated laudario for the Compagnia di Sant'Agnese at the Carmine, represent his talent for narrative, particularly important in terms of illustrating text in an illuminated manuscript.⁷

The laudario is a major work and tells much of Bonaguida's methodology. The ten illuminations for major feasts each has a large miniature dominating the page, a single opening musical staff, and a single text line in gilt capitals

No. 2 and No. 7; De Ricci, particularly M. 862, 365 and M. 827, 362 for early examples.

⁵ This records the dissolution of a partnership with an unknown artist Tambo di Seraglio. In 1316 the guild of painters was reconstituted under the aegis of Arte dei Medici e Speziali. His name appears on the register of matriculants in the new organisation between 1327 and 1330, Kanter, 44, quoting from Milanese, *Nuovi documenti per la storia dell'arte toscana*, 1901, 17.

⁶ Most writers agree that a single digit is missing at the end of the inscription (MCCCX. . .) The altarpiece is generally dated at either 1315 (MCCCXV) or 1320 (MCCCXX). However it is thought that a vertical and not a diagonal starts the missing letter, suggesting a date of 1311 (MCCCXI), 1312 (MCCCXII), or 1340 (MCCCXL). The style of the altarpiece bears out the claim for a date of 1340. Kanter, 44.

⁷ The laudario may have been his last work and incomplete at his death. It was completed by Master of the Dominican Effigies - so, a date of around 1340 seems reasonable. The book of hymns was one of the most lavish works of the first half of the fourteenth century. See Kanter, cat. 4. Alexander, 9-26; Sandler, 37-39, *Text Types and Programmes of Illustration*; Drake Boehm, *The Books of the Florentine Illuminator*, in Kanter, 15-23; Kanter, 3-13.

against a dark block. The pages are all lined with the same sized musical staves, the figures shown in profile with easily recognisable gestures to aid the telling of the story. The central illustrations are framed by very stylised decoration of foliage, flowers and birds, with the margins also decorated with birds and angels. Elegant, elongated proportions differentiate his work from the earlier rather naive, large-eyed and solid figures of earlier artists. This move to elongate and to refine the figure is seen later in the work of Jacopo della Quercia. Two works by Bonaguida are worthy of further study in terms of his handling of the figure within a confined space, and also in terms of establishing an early source of three-dimensional representation by way of cross-hatching.

The Calling of St. Andrew in an initial A (6) is a delicate design of tempera and gold leaf on parchment.⁸ It recounts the Gospel account of Saint Matthew, as Jesus calls upon Simon and Andrew to follow him.⁹ On the foliate terminal of the letter A, Jesus beckons to them with his right hand. In the roundel at the centre of the lower margin, Andrew appears crucified on the cross, lying horizontally. The characters are confined within the square by an elaborate frame of gold details against a red background, this is edged with dark blue on the outside and turquoise to the inner edge. The figure of Jesus is outside the frame and looks in on the action, rather like a tableau. Two fishermen have been interrupted in their labours and react naturally to that interruption. Andrew, in the pink robe, looks at Jesus in a quizzical manner, while his brother Peter looks on placidly. The figures are, however, rather flat against the

⁸ Reiset, No. 9828, Vol. 5; Kanter, 4b, 65.

⁹ Gospel account of St. Matthew (4:18-20): *And Jesus, walking by the sea of Galilee, saw two brethren, Simon, called Peter, and Andrew his brother, casting a net into the sea: for they were fishers. And he said unto them, Follow me, and I will make you fishers of men.*

background. Within the scope of the modelling, hatching is not used, apart from long vertical brush strokes used to model the surface of the garments.

In order to see much of the detail, it is necessary for the viewer to work closely with a glass to fully appreciate every aspect of the work. The depiction of the figures sees the artist working on a small scale, focusing down his efforts in terms of rendering the figures in a realistic manner, paying due attention to detailing on the garments, particularly around the neck of the robes of the figure of Andrew and Peter, and the edging to Christ's deep blue cloak.¹⁰ The halos of the two saints and of Christ have been created by punching tiny holes in the gold leaf, calling for the artist to work with a very fine implement and with the aid of a magnifying glass to assure consistency and rhythm. Similarly, the foliage is picked out with delicate detailing, as in the pink flourish, above the head of Christ which is bordered in white, in the same way as the gold leaves to the bottom of the sheet have been picked out with a fine gold line. The attention to detail and the ability to work on such a small scale is seen in the letter F, drawn over the bottom line of the last stave. The detailing to the bottom of the illuminated letter shows the artist's concern for consistency and meticulousness. Each tiny red line, between each decorative circle, is of the same length and of the same pen nib consistency. Such consistency is also evident in the hair and beard of Saint Andrew, where fine light-grey lines have been painstakingly drawn over the darker base colour to give the illusion of texture. Even within the net, set against a very dark background, the viewer can

¹⁰ The initial A measures 120 × 150 mm.

see seven tiny fish being hauled to the surface, as detailed as those still freely swimming in the sea.

This finished page shows that the artist used a range of nibs. The notes of the music are drawn with an oblique nib, which may have had a thin edge to it, enabling him to use the same pen for notehead and stem. The stems of the notes appear to be drawn with one action of a move to the right with the oblique side and then the pen pulled down on its thin edge at right angles to create the stem. The note stems are now very faint and suggest that the note was drawn in one move, very little ink left on the nib for the stem once the heavy notehead had been drawn. A fine nib is used, particularly for the lines of the staves (in red) and even finer nib(s) for the very minute detailing, as to the letter F.

In Bonaguida's *Trinity* (7) there is clearly a development of the rendition of three-dimensionality, for while the secondary figures are similar to those of the principal figures of the previous drawing, here, the figure of Christ has solidity and weight, indicating a distinct development of Bonaguida's technique and confidence in the rendition of three-dimensional form.¹¹ There is, at the same time, a suspicion that within this illumination, there may have been two artists at work, or that Bonaguida was helped with the figure of Christ, for His figure is much more mature in its depiction than any other within the page.

¹¹ Harrsen and Boyce, No. 23, 14 (Colourplate 1). They suggest that Christ is set within a rainbow and that His feet rest upon another rainbow. The attribution to Bonaguida, they contend, is supported by "The long-headed, narrow-eyed types, boneless hands and greenish-lavender flesh tones"; Hartford, No. 79, 44; Partsch, No. 41, Plate 25 and Figure

Unlike the miniature from the page *The Calling of Saint Andrew in an initial A*, the illustration covers the entire page, with Christ framed in the middle. He is supported by four seraphs visible only by their wings. Christ is the dominant figure, seated within a circle and surrounded by attendant angels who hold musical instruments and liturgical implements. Below Him are the Heavens, and further below, the Earth, where there is a crude drawing of a farmer tilling the ground, while his animals graze. In the left and right margins are two nimbed figures, one holds a crown (to the left of the sheet), the other holds a vase of flowers. These objects are offered to Christ.

The oculi in the corners represent the Trinity and offer further examples of the artist working on a small and restricted scale. Abraham and the three angels occupy the oculus to the top left, with God the Father as the Ancient of Days, with a crucified Jesus in his lap, to the top right. The three angels at Mamre and the Synthronos (three-headed Trinity) occupy the lower left and right oculi respectively. All four miniatures show growing concern and confidence with the rendition of space. The miniature to the top left, sees Abraham and the three Angels standing firmly on a ground plane created by the artist, the feet of the three angels standing on a green area which recedes to the back (right) of the picture plane. Abraham kneels in a doorway and behind his figure, in darkness, is the interior of his home.

The figure of Christ appears to sit on a throne, but this is not seen to the viewer, although there may be an indication of the throne to the figure's right (this is

74; D'Achille, 49-73; Kanter, 41, 73.

very difficult to ascertain, even in good light). The toes of the figure rest on the circle which surrounds it. One must presume the semi-circle at the back of the figure is to depict an area of ground, tipped up in order that it can be seen by the onlooker, this is rather confused and inconsistent with the artist's attempts to create a convincing space within the upper left oculus.

Christ's garment is of greatest interest in terms of plotting a development of the technique of hatching. The figure of Christ's garment is white, but there is careful hatching within its drapery to add texture and substance to the figure. The drapery falls in three teardrops, a very shallow top layer, a second which falls between the figure's knees, and a third which falls down towards the figure's ankles. This third layer is hatched with long, flowing lines which follow the fall of the cloth, with a build up of cross-hatching to the bottom of the fold. The hatching adds weight to the material, but, all importantly, a feeling of monumentality to the figure. Similarly, there is even clearer hatching build up in the longer fold in the middle of the knees, where a longer stroke has deepened the fold on the left, with cross-hatching to the innermost area of the fold. There is another small area of cross-hatching to the very bottom fold (by the left foot of the figure). Moving out from the central area between the knees of the figure, hatching can again be picked up on the outer folds (at the level of the thighs), this time in gold highlights, more subtle than the darker hatching lines to the front of the figure, but leading the eye around the side of the figure to give it more substance and credibility.

The figures in the right and left margins are also modelled using a hatching technique. The figure to the viewer's left shows long hatching (as an overlay of very fine brush strokes) down its left-hand side. This is then built up with a cross-hatching across the chest and round the left-hand side of the figure. There is similar handling on the right-hand figure where a vertical stroke is used to build up the chest area, but this time there is a diagonal line running left to right around the chest area, adding to the rotundity of the figure. There are similarities with *The Pentecost* (8) by the Master of the Dominican Effigies.¹² There is comparable handling to the small figure in white to the right (at the feet of the Virgin) and its neighbour in blue who holds a red book. Links can also be made with the handling of the figures to the left and right of the Virgin (on the upper tier) whose handling (and colour) is the same as the figures in the margins of the *Trinity*. Such similarities must challenge the authorship of *The Pentecost*, but, even if the two sheets are by two different artists, the use of hatching would appear to be developing at this time in the fourteenth century.

The Master of the Codex of Saint George is deemed the outstanding miniaturist of the first half of the 14th century.¹³ Traditionally thought to be a follower of Simone Martini because of his rich palette and elaborate decorative schemes, recent study has sought to confirm that the style is Florentine:

Personally, I believe that the S. George Master received his training in Florence in the circle of painters who were particularly sensitive to the taste and style of their Sienese colleagues and that, like other miniaturists who followed with interest what was taking place outside the city, he experimented with the new, refined means of expression inherent in Gothic

¹² Ottley Sale, No. 180, 12; Kraus, 1961, No. 14, 51; Kraus, 1965, No. 9, 23; Hartford, No. 82, 45; Voelkle and Wieck, No. 66, 178-180; Kanter, 4H, 73.

¹³ So named from an illuminated missal in the Biblioteca Apostolica Vaticana. This includes a *Life of St. George* by Cardinal Jacopo Stefaneschi. Kanter, 84.

art.¹⁴

As with other miniaturists of the time, it is only possible to ascribe a few works to his hand and setting those out chronologically is an impossible task. The Codex itself can only be dated after 1313 and before 1341, the year the Cardinal died.¹⁵

The Master's work, while close in essence to that of Bonaguida, moves on in terms of development and in further practising skills in three-dimensional rendition. Folio 85r, *Saint George Saving the Princess by Slaying the Dragon in an initial D* shows his skill in architectural drawing with the execution of a castellated tower, a drawing of great skill and refinement for its time (9).¹⁶

Another miniature from the Codex, folio 123r, *Cardinal Stefaneschi in the Company of Monks Offering His Book to Pope Celestine V, in an initial G* further builds on the achievements of Bonaguida (10).

The Pope sits within the initial G, detached from those who come to venerate him. These figures are contained within the margin. This left margin, generally a vertical decoration, has been bowed to accommodate the ten figures and the Cardinal, who offers his book, his arms crossing over the square of the initial's block. The most important figure here is that of Pope Celestine V, who sits on a throne dressed in plain brown robes. The drapery is very soft and falls gently over the knees of the figure, to the ground. There is heavy drapery to the left

¹⁴ Boskovits, 1984, 37.

¹⁵ The date of the canonisation of Saint Peter Morrone, as Cardinal Stefaneschi is seen presenting a codex in an illumination. Based on the existence of manuscripts by his hand for the Cardinal, it seems likely that he was in his employ between 1321 and 1323 and that he had (probably) died before Simone Martini's arrival in 1336. Kanter, 84-85.

¹⁶ For the Codex of Saint George: Dykmans, 98-100, 108-111; Boskovits, 1984, 38-39, 196-

arm and more confined drapery to the right arm. As with many later figures, notably the Virtues on the *Study for the Fonte Gaia (I)* by Jacopo della Quercia, there is a problem with the proportions of the body, the figure of the Pope seeming to be very long neck to waist, the legs too short in proportion. This elongated style echoes the influence of Simone Martini and Duccio, Sieneese characteristics that are seen extensively in the work of Quercia in the early fifteenth century.

Vitally important is the technique with which the modelling is built up. The surface of the chest of the figure of the Pope is developed by a series of long, delicate lines, curving down from the seam of the robe at the left shoulder, but also, by way of a new line from the seam, back and around the shoulder behind the figure. In this way, the figure is given bulk and is lifted away from its background, the body seeming to move around as the book is passed from the right. This is a development from the figures in Pacino di Bonaguida's page, *The Calling of Saint Andrew in an initial A*, who are rather more flat, and a step forward from the figure of Christ in *The Trinity*. The modelling consists of a varied selection of hatching strokes, from the verticals of the chest, to the curved line which follows the shape of the left arm. The line here becomes more intense around the left-hand side of the sleeve, adding to a feeling of three-dimensionality as the arm is set in three dimensions against the rest of the cloak, almost like a drapery study. There are also areas of cross-hatching. This technique is most obvious around the right-hand, upper leg area, where the long curved stroke is crossed by short diagonals. Where this area is clearer

(being nearer to the light source), the same method is used to deepen the folds which fall from the knee to the ground, the hatching patiently built up layer upon layer to denote areas of deep shadow. The drapery of the left knee, once again in the light, is modelled using longer, darker strokes to define the area of shadow, almost a pyramid shape over the right knee. This defined hatching method is obvious over the whole area of the cloak, particularly visible in the more complicated drapery of the lower body.

A second miniature from the Codex, *Emperor Constantine Praying Before an Altar in an initial D* introduces a figure type that will become familiar later in the fifteenth century with the work of Ghiberti (11). The figure of the emperor is a cousin to the figure of *Saint Stephen*, sometimes attributed to Ghiberti, but this character has more naturalistic qualities. Like the figure of Saint Stephen it is trapped within the confines of the medium. This figure lives within a defined space and within accepted boundaries.

The Transfer of Design to Panel

Don Silvestro dei Gherarducci, born in 1339, is of the next generation of illuminators, joining the Camaldolese Order in 1348 when he was 9 years old.¹⁷ Don Silvestro produced work in illumination and on panel. A piece from each medium, illumination and panel painting has been chosen for study and comparison here, to show how such technique could be applied in another

¹⁷ His name reappears in connection with the monastery in 1362. Based on the evidence of his mature paintings, it seems he spent the interval working in Siena, where he might have been trained in Jacopo di Mino del Pellicciaio's workshop. See Kanter, 124.

medium. Such versatility also illustrates the desire of artists at this time to extend their working practices and to experiment in other media.

The Death and Assumption of the Virgin (12) was produced for the choir book of the monastery of Santa Maria degli Angeli.¹⁸ The composition of this piece, particularly the figure of the Virgin, as she ascends to Heaven, is reminiscent of Ghiberti's window of the same subject, designed for Florence Cathedral (*figure ten*). Both Virgins are of the same artistic tradition. Both compositions are similarly balanced by the two larger angels, to either side of the bottom of the mandorla. The long, elegant wings of these angels are entirely similar. Both sets of heads are bent back, towards the viewer in the case of the Don Silvestro, and towards the Virgin in the case of the Ghiberti window. In all other ways they are similar -- the outward sway of the body in the Don Silvestro, the drapery one full garment from neck to toe, and the rather more stylised draperies of Ghiberti's figures which float upwards in a more naturalistic way. In the same way, there are two groups of angels to either side, both quite animated and, open-mouthed, seeming to talk to one another. The Don Silvestro angels are more posed than those of Ghiberti, the outer angels in blue garments looking towards the Virgin, the two inner figures, in red, looking out towards the viewer.

The lower scene is synonymous with much of what would come later. There is a genuine attempt to create a definable space with a crowd of figures who

¹⁸ Ottley Sale, No. 181; Waagen, 35; London, 1874, No. 1, 34; London, 1879, No. 177, 34; Russell Sale, No. 124; Bradley, 242; London, 1908, No. 129, 129; London, 1925, No. 3795A, 190; De Ricci, Vol. 2, 1932; Levi D'Ancona, 1957, 19-20; Boskovits, 1975, 423; Russell, 192-195.

gather round the sarcophagus. Two pairs of angels to either side, holding tapers, lead the viewer into the scene. The foreshortened figure who bows before the Virgin's body is an ambitious attempt to vary the poses of the figures. Those figures actively involved in placing the Virgin in the sarcophagus, show the care and concern taken by the artist in creating convincing bodies in three dimensions. Behind the main characters are layers of figures designed to build up space behind the main group and back into the distance, the left-hand tree surrounded by the figures at the very back of the throng, the tree to the right, leading the eye up the mountain and back out of the picture. Similar convention is used in Ghiberti's panel for *Jacob and Esau*, in the *Gates of Paradise*. Here, to the right, is the tree used to distance the viewer from the action, the hillock leading the eye out of the picture, but this time, to the left, a drape borders the action of the figure furthestmost from the scene at the front of the picture plane.

The way in which the page had been executed is important in determining the mood of the artist charged with depiction on a small scale. While the page is of quite substantial size, the action is confined within an ornate and heavy border, cutting down the space available to the artist. The need to create space is paramount, but there is distinct regard for the detailing and delicacy of the figures. The faces are painstakingly drawn as individuals, all with halos decorated to the finest detail, each embossed with a design. Here, the artist works to very small scale and concentrates his efforts for a length of time on a particular area, working in a material of some monetary worth. This concentration necessarily detracts from the work of the whole when focus has

to be kept on one area. This changes the psychological attitude to the work, for the artist now relies on memory of the whole as he concentrates on each small isolated section.

Gherarducci transferred his technique to a panel *The Crucifixion* (13), originally the central section of a much larger altarpiece.¹⁹ The panel consists of a central area which depicts Christ on the Cross, the cross taking up the full height of the panel. The cross is enclosed in an archway, this arch bowed towards the bottom of the panel to accommodate the various figures assembled there. To either side of the vertical sides of the arch are six angels framed in separate panels which were added to the panel in the nineteenth century. There is some dispute as to the authorship of these panels.²⁰ In the centre of the composition, eight tiny angels fly by the side of Christ in lamentation, three collecting the blood of Christ in a bowl. The body of Christ is portrayed with a great deal of realism and a feeling of monumentality. This is not a naive figure, flattened against the background, but a figure whose bone structure and musculature are clearly visible, set against the background in three dimensions. This is achieved by a series of thin lines which curve around the side of the body, leading the eye around the figure. These lines are repeated around the lines of the ribs and around the central muscles of the stomach. The diaphanous loin cloth's surfaces are built up, much as before in the depiction of the draperies of Pope Celestine V in the sheet by the Master of the Codex of Saint George. The cross-hatching to the left-hand side of the cloth is intense, but is kept open enough to allow some light to come through, enhancing the

¹⁹ Boskovits, 35-61; Kanter, No. 15, 126-131. The altarpiece was reconstructed by Miklós

transparent texture of the material. There is similar use of cross-hatching in the fold to the front of the loin cloth as the material is draped across the stomach. The area of deep shadow on the top drape is achieved by long curved lines, following the drape of the cloth, and smaller diagonal strokes, from right to left. There is similar treatment in the lower drape, this time the line shorter, the down strokes both vertical and angled to build up shadow. Here is seen a true attempt to create in three dimensions by using a defined technique, in developing an outline shape, by use of hatching to lead the eye around the figure and then to develop that hatching in a number of ways to create areas of space, adding to the illusion of monumentality.

The figure group to the bottom of the composition is interesting for quite another reason, that of the build-up of definable space. There are four groups of figures, to the left, the women, to the right, a group of men. The left-hand group move through a series of layers, defining a space which goes some way back into the composition. The Virgin is supported by two female figures, in front of two women who stand behind, one facing the cross, and to be read as looking up at the body of Christ, and the neighbouring figure in a gold-coloured cloak who looks away from the cross. The bare-headed figure in the next section stands beside a figure in blue, who looks down to the ground *behind* the cross. Two women stand beyond these figures, one looking, either to the back of the panel or to the side (only her head-dress is visible), the other looking up at the cross. Some way back from the cross, this figure must be looking at the back of the figure of Christ. The variation in the poses of the

Boskovits in 1972. For details on the pieces and their locations, see Kanter, 126.

heads adds movement and life to the group, adding to the feeling of occupation of a space by three-dimensional figures.

The male figure group to the right of the composition moves up the slope on which the cross is sited, from the right-hand figure in gold to the neighbouring figure in lilac, who is deep in conversation. There is a successful rendition of monumentality here mainly through the heaviness of the robes which fall to the ground beyond the feet of the figures. The group of three beyond this pair are somewhat less of a success, seeming to be squashed into a confined space, the figure pointing upward to the body of Christ, standing on a piece of ground beyond the figure of Mary Magdalene in red. The male figure may have been added after the figure of Mary.²¹

The style of the figures is an interesting combination of Sienese and Florentine, the female figures in profile showing the Florentine influence of the Orcagna circle, particularly of Nardo di Cione. However, the stylistic traits of the Sienese are apparent on closer study. The hands of the Virgin are particularly graceful, the left hand almost a modelled study. In the same way, the hands of the right-hand male figure show, especially the right hand, an interest in painting a three-dimensional and highly expressive hand in space, a development from earlier works. Especially pleasing is the sense of colour and the variation in the palette, from reds, to varying shades of pink, to lilac and blue/green.

²⁰ Kanter, 126, as being "probably painted by Jacopo di Cione."

²¹ There may have been some work done to make these figures more comfortable within the space. Between the figure of Mary Magdalene and the male figure in blue/green there is evidence of some later work, the gold leaf of different texture from the rest of the

The six panels (three to either side of the cross) have been cited as being by another artist, but they too show traits of the Siennese, particularly of Simone Martini. These angels foreshadow the Virtues of Jacopo della Quercia's *Study for the Fonte Gaia*. Like the Virtues, these figures are contained within a set area. Unlike the Quercia study, these figures stand in front of the archways and are not contained within them. The faces are calm and demure, in contrast to the character in the faces of those below. They are, all six, characterised by long noses, almond-shaped eyes and long, tapering fingers. These traits will be seen again, not only in the work of Jacopo della Quercia, but also in the figure of *Saint Stephen*, in the drawing attributed to Ghiberti.

The figures of this panel and their composition foreshadow much of what will happen in the fifteenth century. While little or nothing is known of the training of Ghiberti or Jacopo della Quercia, it is clear a consistency is appearing in these miniatures and panels, a recognisable range of techniques and approaches. It is reasonable to conceive, that such techniques were taught to younger artists of these and similar oeuvres of the time. Because Don Silvestro was associated with Orcagna and his circle, he was open to many different influences. It may well have been that there was collaboration on many works and so, here, as in other works, a range of factors must be taken into account. While the illuminations reflect a sense of development and understanding through the fourteenth century, the existence of miniatures and sheets from various texts set much of the developments of the fifteenth century in context. It is clear that while the hatching techniques used by the sculptor draughtsmen

of Florence and Siena are thought to have been developed and refined in mid-century by Ghirlandaio, such techniques were established and used exclusively over a century before. This use of hatching, of creating three-dimensional figures on paper, can also be seen in the medium of book illustration, a developing technique which runs alongside that of illumination.

Much later, in the fourteenth century, northern artists, in the absence of a trade in panel painting, used book illustration to take on the traits of the Florentines. Many Germanic artists borrowed from the same masters as Ghiberti -- from Duccio, Martini, Lorenzetti and Giotto. The man credited with beginning the steady process of growth from such influences is Jean Pucelle:

If any major event in the history of art can be credited to one individual, the initiation of this process must be ascribed to an artist whom I shall continue to refer by the traditional appellation of Jean Pucelle, active in Paris from *ca.* 1320.²²

The devices used by such artists, such as the ornate decoration of letters and the convention of the *bas-de-page*, had originated in the thirteenth-century English Psalters and were first seen in the manuscripts of Cologne and Dijon. In the fourteenth century the illustration of secular texts had been confined to medical and legal books. Once the need arose to open up such information to the uneducated masses, the illustration of material became ever more important. In these early works the emphasis is on contours and rather less on plastic modelling: "whatever depth there is, is suggested by the over-lapping of planes rather than by the displacement of volume".²³

²² Panofsky, 1953, 27.

²³ *Ibid.*, 29.

Pucelle's miniatures in the *Hours of Jeanne d'Évreux*, illustrate the Italian influence on the French miniature artists of the time.²⁴ In his *Annunciation* (14), from this book of hours, is seen a departure in the treatment of such subject matter:

In general appearance, too, Pucelle's little figures -- looking as though they were molded out of a pliable and ductile substance -- bring to mind the paintings and sculptures produced in these regions; some of the closest parallels both in treatment and in subject are found in decoration of the choir screen and choir stalls in Cologne Cathedral.²⁵

Pucelle staged a theatrical tableau, in removing the front wall of the room to enable the viewer to see what was happening within, various props being used to denote space. In particular, he uses a bench to create space behind the figure of the Virgin to lead the eye back into space, thus establishing a credible interior.

Jean Bondol, born in Bruges and active in Paris from 1368 until at least 1381, was a lover of nature and strove to pick up where Pucelle had left off.²⁶ Where Pucelle retained the linear element in his work, Bondol produced more stocky, modelled figures. Bondol's work shows interest in more subtle surface modelling in addition to creating three-dimensional figures. Where Pucelle used devices to create space, Bondol begins to create defined spaces by means of receding ground planes and foreshortening. The dedication page of his *Bible Historiale* (15) shows a clear desire to create three-dimensional figures who exist in a defined space, achieved through the medium of a tiled, receding floor

²⁴ Panofsky, 1953, Pl. 3, 29-31; New York, 1957; Morand, Pl. IX (d), 13-16. The *Annunciation*, as part of the *Hours of Jeanne d'Évreux* is dated between 1325 and 1328 in line with the existing document, see Morand, 31.

²⁵ Panofsky, 1953, 31.

²⁶ His only authenticated work is the *Bible Historiale* of 1371, Museum Meermanno-Westreeanium, the Hague.

plane on which the action takes place. Here, the small figures are confined by the boundaries of the outlines and by the confines of the framework in which the scene is contained.

The Influence of Lorenzo Monaco

Lorenzo Monaco places developments at a crossroads. As with many of the other artists of the time, documentation is incomplete.²⁷ However, his drawing style gives up many secrets in relation to the current study, for Lorenzo left drawings for future study, linking the illuminator to the sculptor.²⁸

A group of six drawings, preparatory miniatures for choir books, are divided between the Vatican and the State Museum in Copenhagen. Laurence Kanter suggests that they were intended to be read together:

That they were intended to be read in series is indicated by their absolute uniformity of handling and quality; by the repetition of elements of their architectural backgrounds in successive scenes, as between *Christ in the House of Martha and Mary* and *Judas Receiving Thirty Pieces of Silver* or between *The Last Supper* and *Christ Washing the Feet*; and by the conformity of musical stave height and penmanship in their accompanying texts.²⁹

²⁷ In 1390 he entered the Camaldolese Monastery Santa Maria degli Angeli and took minor orders in December 1391. He was ordained as a subdeacon in September 1392 and a deacon in 1396, but left after this to set up his own studio. He still kept business with the monastery and took over virtually all the work after the death of Don Silvestro dei Gherarducci in 1399. He is assumed to have died in 1423 or 1424. Kanter, 220; Eisenberg, 1989, 4. See also Eisenberg, 1989, 6-8 for the artistic background to Santa Maria degli Angeli and 8-12 for his earliest works.

²⁸ For Monaco's general background and stylistic development: Eisenberg, 1989, passim; for early works: Gronau; Eisenberg, 1957; for specific pieces: Sirén, 1908/9; Meiss, 1958; D'Ancona, 1958; Montebello, passim.

²⁹ Kanter, 281-282. The six drawings are *Miracle of the Loaves and Fishes* (Kanter, 36a), *Judas Receiving Thirty Pieces of Silver* (Kanter, 36d), and *Christ Washing the Feet of the Apostles* (Kanter, 36f, all in Copenhagen); *Entry into Jerusalem* (Kanter, 36b), *Christ in the House of Martha and Mary* (Kanter, 36c), and *The Last Supper* (Kanter 36e, all in the Vatican). There has been much discussion as to the date of these six sheets. It seems possible that they form part of the missing second volume of the temporale from Santa Maria degli Angeli. Volume 1 ends with the second week of Lent, while the third begins with Easter Sunday. This material would be consistent with inclusion beginning the third week in Lent. The second volume is likely to have been completed around 1409. For further

*The Miracle of the Loaves and Fishes in an initial L (16)*³⁰ illustrates the tale from John 6: 3-13.³¹ As with *Christ Washing the Feet of the Apostles (17)*, this initial is made up of an ornate design, drawn with a supreme confidence and a sense of freedom not seen before in any of these manuscripts. Such designs would be echoed in many gold pieces, where such organic representation was widely used. Here, perhaps pointing to his growing love for the freedom of the International Gothic, Lorenzo Monaco moves away from what has gone before, to set a new standard in illumination and, more importantly for this discussion, in drawing style. Particularly excellent is the foreshortened scrolling leaf to the bottom left of the initial supporting the two pea pods, showing great flair and imagination and a freshness unseen in many modelbook drawings. There are similar advancements in the depiction of space. There is no need to build up layer upon layer of flattened figures, but here the action is arranged around the group of baskets filled with bread. The group to the bottom left are particularly successful in creating a comprehensible area, through the gestures of the body. While all of the five standing figures look down to the ground, the arc that they occupy is broken by the shoulder of the figure at the back in the centre, the left shoulder pointing downstage of the action and creating space between itself

discussion see Kanter, 282-283. The six drawings are discussed together by Degenhart and Schmitt, 1968, Nos. 156-158, 161-163; Boskovits, 1975, tentatively suggests they are part of the same Codex, 353, Eisenberg, 1989, groups the drawings in two sections under the appropriate museum, with further discussion on the Copenhagen drawings in Catalogue II, Florence, Accademia, *Saint Catherine of Alexandria*, 184-186. For references to all three Copenhagen drawings: Gronau, 183-188, 217-222 (as Lorenzo Monaco and showing affinity with the San Gaggio Altarpiece, c. 1390-1391); Degenhart and Schmitt, 1968, Nos. 156-158, Vol. 1, 263-264 and Pl. 191, Vol. 3 (Florentine, around 1400; refute the connection with the San Gaggio Altarpiece); Boskovits, 1975, 340 (as Lorenzo Monaco).

³⁰ The initial L begins the Mass for the Feast on the fourth Sunday in Lent: "Laetare, Jerusalem, et conventum facite, omnes qui diligitis eam." (Rejoice, O Jerusalem, and come together all you who love her). Kanter, 274.

³¹ *Jesus therefore went up into a mountain, and there he sat with his disciples. And the passover, a feast of the Jews was nigh. When Jesus then lifted up his eyes, and saw a great company come unto him, he saith unto Philip, Whence shall we buy bread, that these may eat ?*

and the figure at the back of the group. Clever use is made of the figure that sits with its back to the viewer, creating a circle around which the action takes place. This is not a drawing built up with hatching, it does not outwardly show any inclination to create figures in three dimensions, but there is concern to create a surface contour, not the concern of the artist creating in three dimensions, but of enormous importance to those working in relief. The seated figure looking down to the right is related to the same anguished figure in the *Massacre of the Innocents* by Donatello (5).

The second of the two drawings, *Christ Washing the Feet of the Apostles in an initial D* shows, as in *The Miracle of the Loaves and Fishes*, an ornate and highly stylised use of foliage decoration in the initial itself.³² Such ideas are replicated in goldsmith pieces. Indeed the D (almost like an O) is made to look like a hinged piece of jewellery, the acanthus leaves supporting the base of the D and, at the top of the letter, is tied, as a bow, to crown the decoration. The scene comes from John 13: 3-9, the scene before which Christ announces Judas as a traitor and so Lorenzo's depiction is imbued with a sense of intimacy. The furthest background of the scene is depicted by two bays of an open arcade with careful decoration around the top of the wall. This is similar to the arcade in Monaco's drawing, *Christ in the House of Martha and Mary* (18). The supporting struts of the arcade show how it is supported and create a feeling of space back into the picture. This is a rather more credible construction than in *Christ in the House of Martha and Mary*. Unlike the *Miracle of the Loaves and Fishes in an Initial L*, the action here is more conventional. Christ washes the

³² The D begins the Communion Hymn at the end of the Mass for Maundy Thursday:

feet of Saint Peter, while the apostles are placed around him, in the shape of a halo and echoing the shape of the initial itself. Here the relief style of the previous study is further developed to take into account the heavier folds of drapery. Areas of shading and slight hatching are in evidence behind the figure of Christ, seeming to press the figure forward of the general action. As this is a drawing intended for illumination, Lorenzo shaded, not with heavy areas of hatching, but with a light wash.³³

Failure to fully research the work of the illuminators and book illustration, coupled with the lack of goldsmiths' drawings, has created a somewhat misleading picture of drawing developments. Up until this point there is evidence to suggest that techniques were being established and developed that would be used by a range of artists, creating a repertoire of methods to be utilised in different scenarios and to different ends. It seems likely that sculptors of the quattrocento had access to the work of their predecessors and that artists, such as Jacopo della Quercia and Ghiberti carried on in the spirit of the early masters.

A study of the work of the Italian illuminators provides a chance to scrutinise drawing development before the time of Jacopo della Quercia, and enables the drawing for the *Fonte Gaia* to be set in a developmental context which shows that Quercia's methodology and his attitude to drawing grew from much earlier work. In his article, "Ghirlandaio and the Origins of Cross-Hatching", Chris

"D[ominous Jesus, postquam cenavit cum discipulis suis, lavit pedes eorum]" (The Lord Jesus, after he had eaten the supper with his disciples, washed his feet). Kanter, 280.

³³ The drawing would be overlaid with transparent pigment and so there would be little need for hatching and shading to a highly finished state.

Fischer looks at the development of cross-hatching from the time of

Ghirlandaio:

The outlines in the fine manner engravings are clearly engraved, while the modelling of the figures is achieved by cross- or parallel-hatched lines more lightly engraved, and somewhat irregular in system. The broad manner follows a common method of the pen draughtsman, *i.e.*, clear outline and shading in short parallel lines often with a lighter return stroke laid obliquely between parallel lines. This return stroke would be natural for the pen draughtsman, but not for the engraver, so that its use in engraving shows a direct imitation of the draughtsman's manner.³⁴

While Fischer's discussion rightly highlights the influence of engravers, it takes him only as far back as Jacopo della Quercia's *Study for the Fonte Gaia*:

"There are almost no known drawings by early fifteenth-century Siennese artists, but Jacopo della Quercia's preliminary drawing for the *Fonte Gaia* indicates that cross-hatching was known and used in Siena".³⁵ This technique grew from earlier developments and would have been known to Jacopo della Quercia. Coupled with his experience in the goldsmith's shop, Quercia carried forward into the quattrocento, alongside Lorenzo Monaco, a confidence in the rendition of form. Quercia uses the technique in another context when faced with the need to create in three dimensions and thus establishes a point of reference for development of such technique in a sculptural context in the quattrocento. The creation of the pivotal *Study for the Fonte Gaia* is therefore based on firm developmental foundations.

The problems in understanding the psychology of the sculptor as draughtsman will be touched upon throughout the thesis, but within this early drawing is found the nucleus of the idea that sculptors found it necessary to develop

³⁴ Fischer, ed. Cropper, 248.

³⁵ *Ibid.*, 252.

different techniques from those artists who were concerned with depicting two dimensions, the desire to create three-dimensionality here merging with the sculptor's awareness of the next stage of production, that of taking the chisel to the stone or marble. Here perhaps is seen, for the first time, the establishment of the method of sculptural hatching that would find refinement in the work of Michelangelo, but which also heralds the sometimes extreme cross-hatching of Baccio Bandinelli more than a century later.

ESTABLISHING A CORPUS OF QUATTROCENTO SCULPTORS' DRAWINGS

In pride of place within the Piazza del Campo, the *Fonte Gaia* was one of Siena's most illustrious sculptural projects of the quattrocento. Today, the original fountain is housed in the Palazzo Pubblico sheltering from the ravaging effect of pollution. The porous nature of the material used by Jacopo della Quercia led to the gradual disintegration of the sculpture. Mindful of the sorry state of the fountain, once the centre of civic pride, the Sieneese authorities raised the capital necessary to replace it. Tito Sarrocchi was commissioned to carry out the work in 1858.¹ Sarrocchi worked from the remains of a fountain in poor condition, and with many pieces missing altogether. The replacement copy must therefore reflect much of his own invention. In addition, in order that the fountain blend more harmoniously with the surrounding buildings, the engineers placed the new copy sixteen braccia to the left of the original position of Della Quercia's sculpture, centring it between the archways of the alleys of San Pietro and San Paolo.² The original size and shape of the fountain is now difficult to determine. The individual sculptures cannot be displayed according to their initial layout on the fountain because of a lack of appropriate space in the loggia of the Palazzo Pubblico, and so the individual pieces are all that are left from which the historian can gauge the qualities of the form and artistic character of the original sculptural work.

¹ The contract was made with Sarrocchi on 29 June 1858, the fountain completed in December 1868. The total cost exceeded 60,000 lire. See Banchi, Carpellini and Pantanelli for a full copy of the contract. For background to the fountain see Douglas, 315-317; Banchi, Carpellini and Pantanelli, *passim*; Krautheimer, 1952, 265-269 (general background); Hanson, 10-21 (history of the fountain); 22-34 (imagery of the fountain); Seymour, 1973, 102-106 (documentation relating to the fountain); Ward-Jackson, *passim*; Beck, 1991, Figs. 49-73, 81-94; 161-166 (catalogue entry); 364-365 (for stonework).

The original programme for the fountain is now difficult to determine. A period of civic confidence followed in 1404, when the Sienese threw off Milanese rule and returned to a period of peace with Florence.³ The Sienese were keen to restore a sense of civic pride and a number of projects were carried out in the wake of this event, of which the *Fonte Gaia* is the most dominant.⁴ The re-establishment of Siena as a free republic is celebrated in the original scheme for the fountain which recalls the theme of Good Government, a theme well represented in the artistic background of the city.⁵ While the fountain was a focal point for the people of Siena, the finished sculpture is central to this discussion, not because of its civic importance, but because a drawing exists for the scheme.

Two small fragments of a once bigger sheet are now housed in London (right-hand fragment) and New York (left-hand fragment). A centre portion is widely thought to have existed but this is now missing. The fragments have been trimmed on all four sides, the London fragment suffering more severe treatment. There has been a cut along the bottom of the drawing, the London sheet being an inch higher than the New York drawing and showing a paper repair to the lower left-hand corner. The drawing is clearly unfinished, the left-hand fragment being very much more detailed and complete. It is one of the few drawings to exist from the beginning of the quattrocento and one of only a

² For comparative placements of the old and the new fountain, see Hanson, Plates 2 and 3.

³ The Sienese rebelled against the Duke of Milan in 1404. See Douglas 178-180.

⁴ For example, Taddeo di Bartolo's series of frescoes in the Palazzo Pubblico which depicted political heroes and Virtues, devised by Pietro Pecci, see Douglas, 378-380 and Hanson, 29-30.

⁵ For discussion on the fresco, *The Good Government of Siena* by Ambrogio Lorenzetti, Palazzo Pubblico, Siena: Douglas, 371-375; Borsook, Section 40-56, 34; Castelnovo, ed., passim.

small group of drawings to exist alongside a completed sculpture. The design is significant for reasons other than its rarity, however, for it affords the opportunity to probe the mind of a sculptor, his drawing methods and his means of three-dimensional representation.

The *Study for the Fonte Gaia (I)* is dated 1409, based on documentary evidence of a drawing in existence at that time.⁶ The London and New York fragments are generally accepted as making up the drawing produced for the notary in a modified contract for the fountain, specifying a drawing on parchment on 22 January 1409.⁷ It is likely that the drawing mentioned within the document is the drawing which now exists in two fragments and which was lodged with Niccolò di Lorenzo di Belforte, the notary of the Concistory.⁸ The explanation for the loss of the centre portion is generally explained in terms of the original drawing having been filed within the notary's records. This would account for a fold in the drawing and the abrasions suffered by a centre portion. Most historians accept that the missing portion must have featured the Virgin, who is prominent on the completed sculpture and to whom the fountain was dedicated. However, the central portion must have been considerably bigger

⁶ Vasari Society, 1926, No. 1 (as late fourteenth-century Siense); Lányi, 1927-1928, No. 61 (as probably by Priamo della Quercia); Kauffmann, 1929, 9 (footnote 1, as Jacopo della Quercia); Lányi, 1930, 30, 32-34; Popham, 1931, No. 3 (as probably by Priamo della Quercia); Krautheimer, 1951-1952, 265-274 (as Jacopo della Quercia); Pope-Hennessy, 1953, 278; Hanson, *passim* (probably by Jacopo della Quercia); Degenhart and Schmitt, 1968, No. 113 (as being by Jacopo della Quercia); Seymour, 1968, 93-105 (by Spinello or Parri Aretino or Martino di Bartolommeo); Seymour, 1973, 45; Collobi Raghianti, 1974, Figs. 52-53, 43; Ward-Jackson, No. 7, 21-24 (as copy after Jacopo della Quercia); Ames-Lewis and Joanne Wright, 1983, No. 46, 224 (as Jacopo della Quercia); Beck, 1991, 148-150 (as by Jacopo della Quercia); Fischer, ed. Cropper, 252 (as by Jacopo della Quercia); Poeschke, 1993, Figs. 11 and 12, 367-368 (repeats earlier attributions from Hanson and Krautheimer, but offers no new comment).

⁷ Beck, 1991, Document 25, 347.

⁸ Hanson, Document 4, 89. Beck, 1991, Document 26, 347-349. Beck disagrees with Hanson's dating of this document. Hanson dates it (after considerable discussion) 1 June, 1412. Beck places the document at its original date 22 January 1409.

than the four to five centimetres that might have been lost through rough handling.

If the drawing fragments are placed side by side (*figure one*), it is clear that there is a missing section. Attempts to then bring the fragments into alignment prove difficult. There is disparity between the angles of the left- and the right-hand side of the fragment.⁹ The fragments can be lined up on the bottom of the frieze on the column on which the figure of Acca Laurentia stands and that of the figure of Rea Silvia. The balance can be retained at the top of the frieze, but when a line is drawn along the bases of the plinths, it becomes clear that the column on the right-hand side begins to move out of alignment (*figure two*). The minimum loss to the sheet would then be set at around 105 millimetres breadth, by the height of the original sheet. If the niche breadth of around thirty millimetres to a column breadth of around ten millimetres is used as a general guide across the breadth of the missing portion, then there could be space for either a large central niche for the Virgin or for niches for two angels (in slightly narrower niches than the Virtues), and a central niche for the Virgin (*figure three*).¹⁰ Whichever is the case, evidence would support the fact that the Virgin appeared on the original sheet.

Quercia first received the commission for the Fonte Gaia on 15 December 1408.¹¹ A full-scale drawing was to have been made on a wall of the Palazzo Pubblico, and, in the contract of 22 January 1409, he is held to account in

⁹ If the wings were intended to achieve perfect balance, then these fragments are different halves of two drawings, which seems unlikely.

¹⁰ Taking into account a column to the left of the figure of Faith.

¹¹ Beck, 1991, Document 22, 345-346.

actually drawing or having a drawing completed.¹² While such supportive documentary evidence is helpful in proving the existence of a drawing, it does little to explain why such an important drawing (to all accounts a “contract drawing”) remains unfinished. The catalogue entry for the drawing in the Victoria and Albert Museum states that the drawing is “copy after Jacopo della Quercia”. The doubt over the attribution is almost wholly based on the unfinished state of the fragment: “It is incredible, in the first place that the rulers of Siena would have accepted an unfinished drawing as the basis of their contract with Jacopo”.¹³ The contract was renewed on 11 December, 1416.¹⁴ The authorities stipulate quite clearly that the drawing was to be submitted to a high degree of finish, “cum figuris, fogliaminibus, compassibus, armis, cornicibus, et aliis rebus ad dictum fontem pertinentibus”.¹⁵ There is a similar problem in that no details appear in relation to the basin that would hold the water:

Having commissioned Jacopo to create a monumental terminus to a system of pipes that extended many miles into the country and had cost much labour, time and engineering skill to construct, neither the rulers of Siena nor the citizens were likely to be satisfied with a design that did not show where the water was to come from or where it was to go.¹⁶

While Peter Ward-Jackson has used the evidence of the unfinished drawing to support a case against Jacopo della Quercia’s authorship, others are convinced that there are indeed enough details to provide an accurate representation of the scheme:

A differentiating feature of a presentation drawing is the specific degree of finish in which certain parts are only defined as far as is required for the

¹² Ibid., 347-349.

¹³ Ward-Jackson, 22.

¹⁴ Beck, 1991, Document 63, 371-373.

¹⁵ Beck, 1991, Document 63, 372.

¹⁶ Ward-Jackson, 22.

fulfilment of the brief, but which are not sufficient in terms of its artistic completion.¹⁷

The drawing for the *Portal of San Petronio* (dated 28 March, 1425) was also submitted in an incomplete state, such a fact supporting the case for the unfinished presentation of the drawing for the *Fonte Gaia*:

Memorandum that on the above-mentioned day the most Reverend Father Our Lord the Archbishop of Arles, Legate and Lord of the city of Bologna, commissioned the making of the great central door of the church of San Petronio to Master Jacopo of the Fountain of Siena, master of wood-carving and master of marble sculpture, according to the form shown in a drawing by his hand, and subscribed to him, with the same details of the work and some additional features which are not in the drawing; and beyond the said details he is to add those mentioned below according to the manner and terms that follow.¹⁸

Jacopo della Quercia submitted the first drawing for the *Portal of San Petronio* in 1425. The main portal is to be constructed by the artist according to a drawing made by him. However, there are a number of significant changes and additions which render such a drawing incomplete. These include details of the height and width of the portal; the width of the pilasters, specified to 2½ feet wide; the stipulation for fourteen individual Old Testament scenes with figures 2 feet high; twenty-eight prophets, 1½ feet high; The Madonna and Child in the lunette to be 3½ feet high; the Pope and San Petronio to be 3½ feet high; life-size lions to appear at the sides of the portal; Saint Peter and Saint Paul to be 5 feet high in the area above the pilasters; a seated Christ at 4-4½ feet high and carried by two flying angels to be made; a crucifixion to be carved above the gable; five figures which are not in the drawing, a Christ and four other figures to be made.¹⁹ It is likely that a number of changes would be made between the

¹⁷ See Degenhart and Schmitt, 1968, 205. Note the use of the term *Vertragszeichnung* -- "Presentation Drawing".

¹⁸ See Chambers, 4-6 for a full translation of this document; Seymour 1973, 124.

¹⁹ Beck, 1991, Document 117, 404-405; Catalogue entry 12, 168-170.

contract of 1425 and the start of the decorative work, however, the list of stipulations and the additional items which accompany the 1425 contract mean that work began on the basis of an unfinished design and one in need of considerable modification.

In May of 1425 a payment is recorded to Giovanni da Modena who is charged with the preparation of (presumably) a scaled drawing. At this stage in the development he must have worked closely with Jacopo della Quercia to develop those items which had not been part of the original design and which would now have to be added in the new drawing.²⁰ Other contracts followed that of 1425: May 14, 1428 a new design is mentioned in relation to the Portal (*lo dessegno novo de la porta grande*); a contract is drawn up 24 October, 1429 for the inner side of the Portal; December 6, 1429 the contract for the inner side of the Portal is ratified.²¹

The *Portal of San Petronio* was begun on the basis of a clearly unfinished drawing that must have given the committee only a reasonable idea as to what the Portal would look like when completed. The work began on the basis of an unfinished design, but, as with the *Study for the Fonte Gaia*, one which gave the members of the committee confidence that this was indeed what was desired. In this light, the unfinished nature of the drawing for the *Fonte Gaia* is less problematic.

²⁰ Ibid., Document 122, 407.

²¹ Ibid., Document 227, 442 and Document 305, 469 respectively.

The document of 1416, which renewed the contract for the *Fonte Gaia*, raises difficult issues in relation to the attribution of drawings to sculptors in general and begs the question as to whether or not sculptors did produce the designs for sculptural projects.²² The document uses the phrase “*manu dicti magistri Jacobi designata et facta*” (*designed and made by the hand of master Jacopo*). Nine years later in the contract for the portal of San Petronio the term “*fatto di sua mano*”, a phrase discussed in depth by Charles Seymour, appears in the contract.²³ While a full and detailed discussion on legal semantics is not the objective of this thesis, it is nonetheless important to clarify certain facts in relation to the authorship of this drawing and its status as a “sculptor’s drawing”. The contract for San Petronio in 1425 is clearly distinguished from the contract of 1409 in the use of the phrase, “*sottoscritto di sua propria mano*”, (*signed by his own hand*) which calls for the signature of the artist.²⁴ The need for clear legal evidence which bound the sculptor to the project was a necessary prerequisite for any project in the quattrocento. Patrons were understandably nervous, given the time taken between initial talks for the undertaking and its completion, and were keen to have some legal support in the event that the project did not turn out as expected. The contract of 1409 does not clearly ask for the artist’s signature, but uses the less explicit term, “*fare o far fare uno*

²² Beck, 1991, Document 63, 371. It is well known that Ghiberti’s shop produced designs for other artists, supplying designs for painters and models in wax and clay to sculptors and masons. Ghiberti himself supplied designs for three stained glass windows in the Cathedral of Florence, *The Agony in the Garden*, *The Ascension*, and the *Presentation in the Temple*: “I designed on the facade of Santa Maria dei Fiore in the central roundel the Assumption of our Lady, and I designed the others that are on the side. I designed many glass windows in that church. In the tribune there are three roundels designed by my hand. In one is how Christ goes to Heaven, in another the prayer in the garden, and the third when He is taken to the temple”. Fengler, 74-75. The windows were executed by Bernardo di Francesco, 28 February 1443; 15 January, 1444; 18 June 1445, respectively. Marquand, 192-193. See Appendix One: *Designs prepared by Ghiberti for execution by another artist*.for details.

²³ Seymour, 1968, *passim*.

²⁴ Note the difference in translation and interpretation between Chambers and Seymour.

disegno d'una fonte",²⁵ and in so doing has clouded the question, in the minds of many historians, as to Jacopo della Quercia's part in the design for the fountain. It seems unlikely that such legal phrases meant any more than that Jacopo della Quercia would be responsible for the completion of the design whether he himself drew it or whether he delegated the task to an assistant.

While the question of alternative authorship of such a drawing might reasonably be expected, given the importance of such an attribution, many historians have overlooked even the possibility that Jacopo della Quercia might have drawn it and suggestions have been made as to alternative draughtsmen. Jenö Lányi suggests Priamo della Quercia as a probable artist, as does A.E. Popham.²⁶ Charles Seymour suggests two artists who may have collaborated with Quercia, if we are to accept the fact that the term, "fatto di sua mano", might allow for another artist working under Quercia's direction.²⁷ Between 1408 and 1409 there were three contenders for the role of assistant -- Spinello Aretino, Parri Spinelli and Martino di Bartolommeo -- all involved at the time in the decoration of the Sala di Badia at the Palazzo Pubblico. Given Spinello Aretino's age and his standing as a respected artist, it would seem unlikely that he was asked to take on such a task. It appears more sensible to propose that one of the two younger artists was assigned to work with Quercia. The case for Parri Spinelli is strengthened by the existence of drawings attributed to him which show the same fine hatching and the elongated figure style of the International Gothic -- for example, *the Baptismal Scene (19)*-- but even this fine handling is not quite in keeping with the softness displayed by the artist of

²⁵ See Beck, 1991, Document 25, 347-349.

the *Fonte Gaia* drawing.²⁸ The case for Martino is not supported by drawings, but is somewhat sustained by his work on the frescoes of the Sala di Balia, where, by coincidence, he depicts Virtues.²⁹ Parallels can be drawn with the two sets of Virtues. The facial types are similar, as is the drapery, but, given the conventions attached to drapery, it would be unwise to rely on such similarities in the quest to prove the same hand at work. The case for attribution to Martino is further strengthened by the fact that, having already worked in Pisa and Lucca, he could have been known to the circle of Quercia, Valdambrino and Quercia's father Piero d'Angelo, indeed, collaboration may have taken place before this date. However, if another artist is accepted as the author of the drawing, then the same questions must be asked. Why is the drawing unfinished and why, given that Martino would be employed for his talent, is the drawing a comparatively poor one? Would not more have been expected of a specialist brought in to achieve accuracy? The argument in favour of Jacopo della Quercia's authorship of the *Study for the Fonte Gaia* is almost summarily dismissed given the lack of a corpus of comparative studies, and yet in the case of Martino, where there is a similar problem, such matters appear less important.³⁰ The matter of alternative authorship is unconvincingly supported by anything other than circumstantial evidence.

²⁶ Lányi, 1930, 32. Popham, 1931, No. 3.

²⁷ Seymour, 1968, 100-101.

²⁸ There is a bad fold down the middle of the drawing, splitting the halves at 200 and 205 mm, which suggests that there was once another 5 mm to the left-hand side of the sheet. Bellosi, Pl. 55, No. 37, 37-38; Ames-Lewis, 1981, Pl. 114, 128.

²⁹ Payments for the vaults of the Sala di Balia are recorded in 1408 and 1410. Seymour, 1968, footnote 23, 104.

³⁰ Seymour, 1968, endnote 23, 104, mentions a drawing in New York's Pierpont Morgan Library which he attributes to Martino Bartolommeo, citing it as of a much later date than the *Study for the Fonte Gaia*. This could only be *Pope Alexander in Council (20)*. This is attributed to Spinello Aretino, due mainly to the link with the frescoes of the Sala di Balia

In the midst of so many arguments and counter-arguments, it is clear that the information needed to assess the authenticity and attribution of the *Study for the Fonte Gaia* lies in the drawing itself. In order to establish the drawing's status as the foundation of the study of the century's sculptors' drawings, a stylistic appraisal of the drawing must be undertaken.³¹

An Analysis of the Drawing

The drawing consists of an architectural frame with several niches that house individual figures. The frame itself does not display great confidence in the application of the laws of perspective, but clearly effort has been made to provide details such as the breadth of columns, and particulars, such as foliage and placements of shields necessary to build a picture of the completed fountain.

The first figure, to the left of the drawing, is the Angel Gabriel who holds a lily. The figure looks across the fountain to the Virgin Annunciate, seen holding a book. The figure of Gabriel is perhaps the most uncomfortably

in the Palazzo Pubblico in Siena, begun in 1408.

³¹ The figures on the drawing differ from those on the completed sculpture:

<i>Drawing</i>	<i>Sculpture</i>
Acca Laurentia	Acca Laurentia
	Birth of Adam
Angel Gabriel	Wisdom
Temperance	Hope
Fortitude	Fortitude
Faith	Prudence
	Angel
	Virgin
	Angel
Justice	Justice
Charity	Charity
Prudence	Temperance
Annunciate Virgin	Faith
	Expulsion
Rea Silvia	Rea Silvia

See Figure 4 for the layout of the figures of the drawing and Figure 5 for the final layout of the figures of the completed sculpture.

placed of all the figures, seeming to have been squashed into the niche and twisting around to the right to look out at the viewer. While the perspectival handling is unimpressive, it is clear that the figure has been drawn in such a way as to reflect three-dimensionality, for this is a tangibly round figure. The fact that it appears to have been squashed into the niche illustrates that the figure was created in the artist's mind first and then attempts made to place it in a defined space. The problem for the artist was not with the figure itself, but in setting it within a framework. The rendition of perspective was still in its infancy and it is clear that the interpretation of space, a technique which would be the subject of virtuosity later in the century, proved difficult. As with the other figures, Gabriel's proportions seem imbalanced, particularly if the figure were to stand up. This trait is shared by some of the figures in the completed sculpture. The figure of Temperance has a short upper body from waist to neck, and is seemingly very long from waist to feet, a characteristic also shared with the figure of Justice. It is interesting to make early comparisons with the completed sculpture. The proportions of the two standing angels on the completed sculpture are more balanced, pointing to a weakness in the seating of the figures and in balancing the proportions of the body, a weakness in sculpture and drawing alike. The weight of the body of the figure of Gabriel is suggested by the drapery folds, particularly around the knees and down to the floor, described by way of delicate hatching using a number of different strokes. These appear as single diagonal strokes to the right of the drapery on the left knee and as cross-hatched lines where the folds become deeper, as in the heavy fold over the left knee. Although the left wing of the figure of Gabriel is awkwardly placed over the shoulder, space is suggested behind the

figure. The placing of the shoulder of the garment on the left shoulder also alludes to space behind the figure (as well as space between the garment and the flesh of the figure of Gabriel), where a much heavier diagonal stroke is used as the basis for very intense cross-hatching. Together with heavy cross-hatching to the left portion of the chest there is an implication that the figure is to be read as being lit from the front, although there is slight illusion of there being a light behind the figure. This may have more to do with the present state of the fragment which has suffered more severely than the London fragment, areas of dirt making the New York fragment difficult to read.

The figure of Temperance sits to Gabriel's left and holds a pitcher. Temperance is one of the four Cardinal Virtues in the drawing.³² As with Gabriel, the figure is placed awkwardly in the niche, although there is a more comfortable posture, in that the seating position is more upright. Of all the figures Temperance is the most elongated with a small head on a long neck. This is the only figure to look straight ahead without an incline of the head as it gazes towards the figure of Prudence on the other side of the drawing. The wing creates space between the garment and the wing itself and behind the figure into the niche. The niche appears fairly deep and there is space enough to accommodate a three-dimensional figure. However, the artist again finds difficulty in placing the figure comfortably in the niche, unable to deal convincingly with the optical correction necessary to counter the duality of its position in looking across the fountain and in being seen by the onlooker. The drapery on the figure of Temperance shows explicitly a third stroke used on the drawing, to add to the

³² Having seen only the London sheet, in 1930 Lányi identified Prudence as Temperance and

single diagonal and the cross-hatched diagonal stroke -- a hooked stroke which, in this case, hooks around the line of the figure's drapery and takes the eye around behind the left leg of the figure. In this way space is created not only behind the figure, but some distance is also created between the figure and the architectural frame. This adds to the illusion that this figure could be taken out of the niche and would stand alone as a three-dimensional object. This hooked stroke can also be identified in the pitcher held by the figure. The stroke hooks around the left-hand side of the pitcher, progressing the curvature of the object and creating three-dimensionality within the object, but also produces space between the body of Temperance and itself, aiding the understanding of the area of space between the wing, the body of the figure and the pitcher. The rendition of the pitcher has been carried out very carefully, almost as a still life representation, the artist omitting to progress the braid of the garment behind the handle of the pitcher.

The figure of Temperance is also important at this stage of the artist's work (if it is accepted that he worked from left to right) for the beginnings of links between the work of the pen on paper and chisel on stone can be seen. There is concern for the depiction of the folds around the figure's chest where the garment is tucked around the body and stretched up over the chest. The different depths of cut are apparent and the area has been shaded with great concern for the consistency of the modelling of the surface. Particular care has been taken to have the pitcher set as a free-standing object, showing the artist's interest in the finished sculpted piece within the scheme. The figure of

the Annunciate Virgin as Wisdom. However, he failed to see the third eye on the forehead

Temperance appears in a different form on the completed fountain, but similar concern for an object's position can be seen in the sculpture of Wisdom whose book is held out, away from the figure, any detailing on the book lost through time, rendering further study impossible.

The last two figures on the New York fragment, Fortitude and Faith, allow the artist some element of relaxation as the figures face the viewer, as such sitting much more comfortably within the niches. Both figures sit on cushions, a convention introduced to aid the rendition of the figures in identifiable space.³³ The figure of Faith is a substantially finished one, like her neighbour Fortitude, both wings are clearly drawn in and completed, and Faith's recognised attribute, the cross, has been used to deepen the space behind the figure. Notably the figure of Fortitude has been completed before the detail on the column to its left, as the detail is drawn over the left wing. The artist still alludes to the trecento traits in the figure style, with long, tapering fingers, the slim, oval head, and a rather elongated body, whose dimensions continue to cause some concern. The figure of Faith sits fairly comfortably, if rather squashed into the niche, and there is a clear definition of space behind the figure which has been achieved by tilting the cross, delineated using a straight edge (the line which depicts the right-hand side of its longest length extending through and across the cross member), over the left shoulder. This creates not only space behind the figure, but also space up and into the niche on the left-hand side.

of the middle figure on the right side which would clearly have distinguished Prudence.
³³ The figure of Fortitude sits on a checkered cushion, seen mostly on the left. Only the tassel on the cushion occupied by the figure of Faith can be seen, the cut having obscured the rest.

The wings, which should be considered fairly substantial, particularly if compared with the more finished wings of Fortitude (on Faith's left), are set well behind the figure, thus adding to an allusion of depth into the niche. Faith clearly sits on some kind of throne and it is interesting to note how intricate and detailed some areas of this "unfinished" drawing are; when the tassels of the cushion on which the figure sits are seen under the magnifying glass, the fine strands of silk are seen to be sketched in with great care. Similarly, space is created by moving the left foot upstage of the right foot, which is elegantly angled to lead the eye back to the left foot and thus backwards into space, the sweep of the knees also helping this deception. The weight of the body is suggested by the drapery and the clear desire to graphically describe the folds of the Virtue's garments by way of a delicate, almost hair-like hatching. Here, the light folds are depicted using a single, angled stroke technique, particularly obvious in the material closest to the surface, for example, down the figure's right leg. These strokes are light and rhythmic and add to the feeling of movement in the cloth. The single strokes become much longer and more languid below the hood of the figure's garment when the stroke is used to represent the position of the cloth as it falls from the Virtue's shoulder. A vertical stroke is used around the material of the left arm as it falls to the knee. This is an area of very dark cross-hatching, as this material falls into shadow, the smooth vertical lines becoming cross-hatching, built up carefully line upon line and still clearly seen as a mesh of finely executed strokes. This is certainly not work which could be said to lack conviction. The folds between the knees are similarly treated with the surfaces closest to the viewer beginning as fine angular strokes and disappearing, by way of an ever increasing intensity of

hatching, into shadow, becoming almost black in the areas of deepest shadow. Throughout the handling of the drapery there are three types of hatching, the clear individual strokes for areas of slight shadow, as seen down the right leg of the figure of Faith, areas of fine cross-hatching, particularly obvious on the folds of the figure's left side, and the very darkest sections of finely built up cross-hatching which depict the areas of deepest shadow. These are used in varying degrees of intensity to create contrast and add variance of light and shade to the surface texture of the fabric itself. To these categories of stroke may be added the hooked stroke, identified in the drapery of the figure of Temperance. The stroke is most obvious down the left leg of the figure where the hook of the stroke leaves the line of the drapery and disappears behind the leg, momentarily appearing as a fine hooked line suspended in space.

The line of Virtues continues onto the London sheet which, although less finished than its New York counterpart, continues to illustrate a concern for detail, particularly in the figures of Justice and of Humility, the figures of Prudence and the Annunciate Virgin showing the artist's diminishing concern for the rendition of detail.³⁴ The figures of Justice and Humility are unfinished and have not been completed down to the feet, although the robe of the figure of Justice almost reaches the ground. Justice is seen here as the leader of the four Cardinal Virtues. In Plato's ideal city the four cardinal virtues, Justice,

³⁴ The identification of this Virtue has led to several interpretations. Lányi recognised the figure as Humility, but it may play the part of Charity, such identification linking with the idea of citizenship. If it is Charity then there is some logic in claiming that Faith, Hope and Charity did appear on the original wall drawing. Here the figures of Hope and Charity may have been replaced by the figures of Gabriel and the Virgin Annunciate. If the figure is Humility (in a rare appearance) it also represents the Incarnation, adding another layer to the interpretation of the religious strands to the pictorial narrative.

Temperance, Prudence, and Fortitude are seen as possessing the virtues required of the citizens of the ideal city state.³⁵

To the citizens, the Virgin represented the essence of Good Rule.³⁶ Here, in the drawing, she stresses the government's ability (and role) in leading the people of Siena. The head is bowed to the figure's right, in veneration of the central figure (as is the head of the figure of Faith on the opposite side), supporting the case for the presence of the figure of the Virgin on the drawing. There is no use made here of the cushion, as seen in the niches occupied by the figures of Fortitude and Faith, but, as with all the Virtues, the niches have been drawn around the figures, underlining the intent to create three-dimensional figures first and *then* place them in defined space, much as they would have been when the sculptural project was carried out.

The figure of Justice further illustrates the care taken with the rendition of form. On the left-hand side of the face is an area of careful and deliberate short strokes which shade the face. These short strokes are in contrast to the long, soft strokes on the drapery above the knees and the folds of material over the left arm. The depth of shadow in the elbow area is built up, as before, with very dense cross-hatching, which serves the dual purpose of depicting the

³⁵ Plato, trans. Waterfield, 4, 427.

³⁶ A mural in the town hall of San Miniato al Tedesco shows the Virgin flanked by the four Cardinal Virtues, while Charity flies overhead, carrying a scroll inscribed as follows:

Chi in questo mondo mecho si governa	Who governs with me in this world
Ornar di fama il fo da questa donna	I'll have crowned with fame by this Lady
E poi per premio gli do vita eterna.	And thereafter I give him as a reward eternal life.

Krautheimer, 1952, 271-272, supports the idea of Good Government as the original programme for the fountain, feeling that the insertion of the *Annunciation* in 1409 made the scheme "almost unrecognizable". Hanson agrees that the drawing "represents an uncomfortable modification of an earlier plan which, following tradition, probably included

depth of cut which would be necessary in the rendition of such depth on stone. Again, the now characteristic hooked stroke is seen on the figure's left, on the drapery fold closest to the ground, the stroke taking the eye around the figure once more. There is similarity of handling in the figure of Humility but, by this stage in the drawing process, it seems that the artist somehow loses interest, the figures showing progressively less detail. There is an opportunity in the figure of Humility to depict very stylised drapery with a double fall of layers of material from the chest. Again, the hooked stroke appears on the figure's left side when the eye is taken round the material to see an area of heavy shading which is the inside of the cloak around the shoulders, beyond this material, the inside area of the wing. There is comparable handling on the left arm with the hooked stroke leading around the forearm and creating space between the arm and the wing.

The dominance of the figure of Humility (due, in the main, to the monumentality of the knees), is in contrast to the figure of Prudence, who, like the figure of Gabriel, is pushed into a niche with little or no definition to the space. The drapery is characterised by the care taken in the hatching to the front of the garment which shows rhythm and steadiness. The modelling on this figure illustrates, as in the other Virtues, the artist's understanding of sculpture and a clear desire to create layers of drapery which embody the characteristics of sculpture and not of flat two-dimensional representation. Even in the obviously unfinished figure of the Virgin Annunciate there is still the desire to create a feeling of monumentality, in this case in the hooked stroke which is

the four cardinal and three theological Virtues together with Humility". Hanson, 24.

taken around the inside of the figure's collar to create a head which stands alone in three dimensions against the backdrop of the hood of the cloak.

Above the architectural frame, to either side of the composition stand two figures each accompanied by two infants, universally identified as representing the mothers of Romulus and Remus.³⁷ Rea Silvia, the regal mother of Romulus and Remus, stands to the right of the London fragment, a rather thin and ungainly figure who is less finished than her counterpart on the New York sheet, Acca Laurentia.³⁸ The figure of Rea Silvia is particularly interesting because it is unfinished. It shows details of primary work where the long, angled strokes reflect the line of the chisel work, in addition to providing light and shade for the sake of the drawing. The basic shading strokes on the right-hand side of the figure's legs suggest that these areas will be in shade, but Quercia slowly begins to reveal concern for the stroke of the chisel. The strokes down the cloak (i.e. down the right side) represent a surface that will be worked by the chisel and are more akin to the surface modelling that will be created by such an instrument. In the same way, the dark area of fold by the right knee has been drawn in with very heavy strokes of the pen, depicting heavier chisel work.

Despite the fact that the drawing has been attacked for its lack of finesse, though not for its conception, there are areas of elegance in the drawing style, the figures being very much in the tradition of the Sienese. This elegance is

³⁷ While the attributes of the figures link them to Romulus and Remus, a second link can be made to a second set of twins associated with Siena - Senio and Aschio - the sons of Remus, who are credited with the founding of Siena. See Douglas, 6-7; Hanson, 31-34.

³⁸ The wife of Faustulus, the herdsman.

noticeable in the drapery of the right-hand side of the figure of Rea Silvia where the cloak falls from the shoulder and is gathered up under the left arm, in convincingly soft folds. This stylistic characteristic is seen in the completed sculptures, particularly in the figures of Faith and the standing figure of the Angel on the left-hand side of the Virgin (*figures six and seven*). A comparative study with Acca Laurentia is interesting in considering what the drawing of Rea Silvia might have looked like after further work. The feet are very much more finished with the arch of the left foot lifted from the ground by means of dense shading and utilisation of the hooked stroke to create shape. Similar work has been done to create areas of space and depth behind the leg and to differentiate the various levels of drapery. As with other figures, there is lack of balance in the proportions of the body, a very high waist contrasting with an unnaturally long lower torso. The hair texture is the same in both figures and the cloak of the figure of Acca Laurentia, similar to the handling of the hair of the monkey. The figures of the children, in particular those held by the two female figures, are unconvincing and awkward in the arms of their mothers. Little work has been done to these figures, although the figures of the standing children are somewhat more successful. The completed sculpture bears out the awkward poses of the children who are being carried, although the stance of the female characters (looking straight ahead in the completed scheme) helps somewhat. It is interesting to note, at this stage, the similarity in the position of the Child of the *Trenta Altar*, the Virgin, as the figure of Rea Silvia, holding the baby in a correspondingly awkward manner.³⁹

³⁹ *Trenta Altar*: Hanson, Pls. 20 and 21, 46-49; Beck, 1991, Pls. 22-38, 151-156.

The appearance of the animals on the fountain is mysterious. The wolves seem likely to have been designed as waterspouts.⁴⁰ The angle at which they appear is altogether puzzling, in that they seem to stand in mid-air, particularly the she-wolf to the right of the drawing.⁴¹ The wolf on the London sheet has been damaged and repaired with paper and so it is impossible to determine where it was intended to stand. The two animals snarl at one other, a ploy perhaps to have the waterspouts cross one another when the fountain was in operation, adding some feeling of levity to the arrangement. The monkey and the dog are in the model-book tradition and are clearly lifted from such reference material. They do not appear on the final sculpture. The fine hair of the coat of the monkey shows a characteristic fineness of stroke, but there is also evidence of the use of the tiny, hooked, blacker strokes around the animal's right shoulder. These strokes serve no other purpose than to add three-dimensionality and weight to the torso.⁴²

The *Study for the Fonte Gaia* displays a number of techniques in rendering forms in three dimensions. Tangibly round figures are drawn which are then fitted into niches. These figures are conceived in three dimensions and the viewer convinced of their plasticity by clever use of a number of strokes which build up a feeling of monumentality (particularly in the drapery). A range of

⁴⁰ Changes were made to the design of the fountain in the contract of January 1415 when the fountain is to be expanded and exterior decoration defined (Seymour, 1973, 120-121). The contracts of 8 July and 17 November also call for the alteration of the waterspouts for the fountain (Seymour, 1973, 104). They now plan to include dolphins (or wolves) ridden by putti to replace the wolves in the drawing of 1409.

⁴¹ Thus continuing the theme of Romulus and Remus.

⁴² The animals bring their own symbolism to the scheme, the monkey associated with the fall of man, in his place alluding to the sins of Adam, the dog representing faithfulness, in this instance recalling Eve. Therefore within the scope of the fountain is birth -- Adam and Eve, the Annunciation, the Birth of Christ, Romulus and Remus and the Birth of Siena, the Virtues, alluding to the qualities one should carry through life, and Gabriel, bringing the

hatching strokes -- the single vertical or the single horizontal with the single diagonal, are used to create areas of cross-hatching of different depths and weights which define the contours; the hooked stroke is used to lead the eye around the form and thus create rotundity within the figure, in addition to a feeling of space behind it; the deep, short stroke represents the sculptor's cut and defines areas of deep indentation in the final stonework. The artist's grasp of perspective has yet to be fully developed. This is apparent in the awkward placement of some figures within their niches. However, Quercia is obviously trying hard to have the figures seem convincing. This is evidenced by the care with which the figures are placed on their cushions, in addition to the still life study of the pitcher, conceived as an object placed in the hand of the figure of Temperance.

Psychologically, the drawing shows an artist working through ideas as he draws. This is not a highly finished piece of work or a copy of another drawing, for as the work progresses, the artist toys with ideas and problems -- such as the placement of the figures within the niches and the construction of the stone arches themselves -- so he is thinking about how the final sculpture will look and how such problems might be put right. The drawing is a stage in the thinking process of the sculptor himself and so cannot be by anyone other than Jacopo della Quercia.

Additional Drawings by Jacopo della Quercia

The *Study for the Fonte Gaia* is recognised as a drawing of major importance, but one generally considered as being the only example of Quercia's work. However, three drawings are worthy of discussion in relation to the artist and to the development of his technique, the *Study of Drapery* (21), *Madonna and Child between a Saint and a Donor* (22) and *Standing Man in Cloak* (23).

The *Study of Drapery* appears in the Ashmolean Catalogue as "Style of Jacopo della Quercia".⁴³ Both the *recto* and the *verso* of the sheet have been associated with Michelangelo, links being made to his early copies of fourteenth- and fifteenth-century works. Written crosswise over the *recto*, in Michelangelo's handwriting, appear some arbitrary notes.⁴⁴ The inclusion of Monagniola's name must date the writing at around 1523-24.⁴⁵ The drawing is of an early style, associated with Jacopo della Quercia, but the handwriting is by Michelangelo in 1523. The existence of Michelangelo's handwriting on the sheet has focused attention on Michelangelo's early work. This has moved the focus away from Jacopo della Quercia's involvement which is of greater interest in its own context. The *verso* (*Head of a Laughing Boy after the Antique*; 24) described in the catalogue as "somewhat fatuous" is unlikely to be by the master, a fact which further renders the drawing problematic.⁴⁶

⁴³ Frey, No. 223b; Thode, No. 422; Berenson, 1938, No. 1565; Popham and Wilde, 1953, No. 131; Parker, No. 42, 27; Dussler (as "Circle of Jacopo della Quercia"); Degenhart and Schmitt, 1968, No. 116, 210 (as Jacopo della Quercia [?]); De Tolnay, 1975-1980, No. 7, 27 (as Michelangelo).

⁴⁴ Parker, 27, "eb...ne duco in chasa circha sei di inazi o nam.../[duc]hati e un terzo allodouicho [= a Lodovico] assectigniano [= a Settignano] di grossi di ra[gione]/.mo(n)agniola sopra decta grossoni ueti noue p(er) choto di suo salario."

⁴⁵ Frey, No. 223b.

⁴⁶ Robinson, 1870, No. 39; Berenson, 1938, No. 1565; Thode, No. 422, supported the attribution to Michelangelo; Frey, No. 223b, rejects an attribution to Michelangelo; Parker, KP 375.

Historians have linked the study to early Michelangelo drawings of around 1490, when he is responsible for studies after Masaccio and Giotto (25;26).⁴⁷ To these studies can be added a third drawing *An Old Woman and a Child* (27), to be discussed more fully later in the thesis. The handling of these studies, particularly the manner of treatment of the hatching, is entirely different from the Ashmolean drapery study. The pen used in these drawings is of a different type, and the confidence in the stroke much more pronounced. The trio of drawings associated with Michelangelo's early work is clearly the work of an artist of great confidence, evidenced by the mastery of the stroke.

The *Study of Drapery*, however, is a drawing of great delicacy and lightness of stroke. The ink is faded, but it is clear that the strokes were executed with a very fine nib. This is a drapery study, perhaps made while a model wore the cloak, given the naturalness of the fall of the drapery and as the slightest indications of legs can be seen below the garment. It is particularly carefully drawn with a clear intent to create areas of relief. The stroke is deliberate and painstaking, giving no impression of great flair or imagination with the pen. The main areas of hatching consist of the same variation of stroke seen in the *Study for the Fonte Gaia* -- the vertical lines with a diagonal overstroke and horizontal strokes with diagonal overstrokes, shaded in differing degrees of intensity. The two dimpled areas to the bottom left of the cloak convey a great deal about the way in which such depth has been built up. The top area of shading was begun with vertical strokes. This area has then been hatched with diagonal strokes which extend beyond the pit of the cloth, outwith the area of

⁴⁷ Of earlier writers, only the authors of the 1953 catalogue considered the drawing as by

vertical lines. This has the effect of gradually shading into the area of depth from right to left, culminating in a very small area to the left, the area of deepest shade, which has been created by adding around eight slightly heavier strokes over the already hatched section. This use of hatching has given the illusion of contour and shape an almost tangible quality. The area below has been treated with a similar method. The vertical and diagonal lines are much finer given that this area is further from the eye of the viewer and so has to be seen to recede into space. The area of depth is similarly created by the addition of heavier diagonal lines running in the opposite direction to the original angled strokes. Here nine small strokes recede in length from the front to the back of the drape of the cloth, taking the eye from the front of the cloth and on into the back of the fold. These small lines are applied by an artist who concedes an understanding of a move into a solid mass, of cutting into a three-dimensional material. The areas of surface texture are dealt with using variations on the hatching method, seen most clearly, but less convincingly, to the right of the garment. Around the main drape of cloth, as the garment falls from the shoulder of the model, tiny strokes mark out the drape against the main area of the cloak, the area below this shaded to indicate the heaviness of the cloth. The small strokes are reminiscent of the hooked shading encountered on the *Study for the Fonte Gaia*. Although similar, they show none of the confidence in handling enjoyed by the latter, but given that this is likely to be a study by a young artist, this drawing could illustrate early intent, on the part of Jacopo della Quercia, to develop a technique for graphic rendition in three dimensions.

Michelangelo himself. See Popham and Wilde 1953, No. 131. More recently, De Tolnay

The *Study of Drapery* establishes that another study does exist with which to compare the *Study for the Fonte Gaia*. It may also prove the existence of a piece of trecento work by Quercia. A comparison with the figures of the fountain shows the same lightness of touch, the same desire to create the illusion of three dimensions and all importantly, reliance on a similar method in doing so.

The figure of Prudence, to the right of the scheme on the London sheet, displays similar handling at the bottom of its drapery as it falls over the right knee. The hatching begins with fine vertical strokes and is built up with heavier diagonal lines to denote the material in shade. The figure of Fortitude, on the New York sheet, is much more finished and it is similarly possible to plot the build up in modelling. To the bottom of the cloak, just above the feet, the material is modelled by way of vertical strokes and sweeping diagonals coming in from the left (an area of darkness), to become much lighter strokes as the material comes into light. At the bottom of this fold, the same small and much heavier strokes are used to denote a deeper fold, as the garment falls to the feet. There is similar handling in the general modelling of the cloth, as very fine strokes show areas of light and shade, very much as in the Ashmolean study, where such areas show the lightest of touches.

The existence of Michelangelo's handwriting causes problems in the attribution of this sheet. While it is not unusual to find *ricordi* of this kind, it is still somewhat surprising to the modern viewer that Michelangelo might treat the

has upheld the attribution to Michelangelo: De Tolnay, 1975-1980, No. 7, 27.

drawing by an early master in such a casual manner. Comparison of the ink of the *ricordi* on the drapery sketch and the ink used in the sketch of the old woman, suggests that they are one and the same in terms of colour and age. Only chemical analysis, not possible within the bounds of this thesis, would produce conclusive proof, but it is reasonable to suppose that the sketch of drapery and the *ricordi* are separated by a considerable space of time. The evidence supports the attribution of the *Study of Drapery* to Jacopo della Quercia. Therefore, in the context of the present discussion, the significance of the drawing lies not only primarily in its attribution, but also in its technical qualities:

The drawing is either by Quercia or a copy of Quercia by Michelangelo, and its importance lies in the fact that the pen technique, the firm outlines and almost schematic cross-hatching, is that which we associate with the young Michelangelo and continued to be the standard drawing style of Florentine sculptors throughout the first part of the sixteenth century, the style commonly associated with the name of Bandinelli.⁴⁸

The importance of this drawing cannot be underestimated, for it seems clear that this is a study from early in the century by the Sienese sculptor. A comparison of drawings known to be by Michelangelo is beneficial to the discussion, showing not only differences in his technique from that of the *Study of Drapery*, but also illustrating how much influence Jacopo della Quercia's method was to have on his later work. Discussion of Michelangelo's links to Quercia will be returned to later in the thesis.

A drawing currently in the Albertina Museum in Vienna, *Madonna and Child between a Saint and a Donor*, is also produced on vellum and may be

⁴⁸ Clark, 1970, 262.

considered a third drawing by the hand of Jacopo della Quercia.⁴⁹ This study depicts a Madonna and Child, accompanied by a saint and a donor, who, kneeling to the left of the Virgin, is blessed by the Christ Child. Its links to the *Study for the Fonte Gaia* are significant, given that both drawings are pen and ink on vellum and are of similar size, the fragments of drawing for the fountain at 202 × 218 mm and 134 × 212 mm, the Albertina drawing at 130 × 250 mm. The scale of the figures is roughly the same. Given that the design is produced on vellum, it may also provide a second example of the kind of legal document that would have been lodged, as with the *Fonte Gaia* drawing, with a notary.⁵⁰

At this stage it is possible to identify given characteristics within the small group of drawings claimed as being by Jacopo della Quercia. Here the figure of the Madonna is reminiscent of the figure of Rea Silvia on the *Study for Fonte Gaia*, the same elongated neck, the head tilting to the left, the poorly proportioned body, elongated hands and the now characteristic fall of drapery from the arm. As with the other studies, the hatching and the surface modelling are concentrated on specific areas. In the case of the figure of the Virgin, the drapery around the left arm has been the focus of detailed modelling, because this would have been the most difficult area of carving in the final piece. The area of deepest hatching within the depth of the folds is contrasted with the lighter hatching to the left of this dark area which is clearly built-up using two sets of diagonal strokes, no particular stroke gaining dominance over the other.

⁴⁹ Stix and Fröhlich-Bum, No. 7, 3 (as being from the beginning of the fifteenth century); Berenson, 1938, No. 1391K (as Maestro del Bambino Vispo); Longhi, 184 (as a Siennese sculptor's drawing of the early quattrocento); Degenhart and Schmitt, 1960, 138 (as Siennese); Degenhart and Schmitt, 1968, No. 117, 211 (as Circle of Jacopo della Quercia).

⁵⁰ Seymour, 1968, 102. He considers the sketch an early idea for the Casini Altar commissioned sometime before 1435.

The hooked stroke can be seen in a small area on the Virgin's right hip under the drapery of the cloak. These strokes are very light. Heavier, hooked strokes can be seen along the right arm and down the left-hand side of the drapery which falls from the arm. The fleshy areas on the arms of the figure of the Christ Child are considerably accentuated by use of the small hooked stroke, leading the eye around the arm and creating a three-dimensional effect.

The saint to the Virgin's right is in keeping with the placid mood of the Virtues of the fountain. The head-dress is of the same style as that of the Annunciate Virgin of the fountain, the facial features similar to those of Prudence. As in the figure of the Madonna, the drapery has been detailed in areas of the greatest difficulty in terms of chisel work. Here, as in the *Study for the Fonte Gaia*, the artist is not simply interested in creating a beautiful drawing, but in working out the ultimate intricacies of the carving.

The last study to be considered as being by Jacopo della Quercia is a drawing presently in the Uffizi, *Standing Man in Cloak*.⁵¹ Argument in favour of the authorship of Quercia is strongly based on the similarities of the figure with those of the *Annunciation to Zaccharias in the Temple*, from the Baptismal Font in Siena (1428-1430).⁵² At first sight this is a tenuous link. The drawing has been retouched and cut around, giving it the added appearance of being in relief.⁵³ In light of the significance of this commission, it is reasonable to

⁵¹ Degenhart and Schmitt, 1968, No. 115, 209, (as possibly a figure for the Zaccharias relief).

⁵² Douglas, 318; Hanson, Pl. 62, 65; Beck, 1991, Fig. 136, 124-125.

⁵³ The drawing has been glued to a sheet with two other drawing fragments (similarly cut around) to its left and right, the figure of an elderly man in cloak and the head and shoulder of another in brimmed hat, respectively. The figure to the left would seem to be by a different hand, but there are similarities in style between the central figure and the figure

consider that a contract drawing might have been produced and this may be part of such a drawing. In its re-worked state, the original hatching is difficult to appreciate, but there is the same consistency as seen in other studies. Such a build up of hatching has created the surface modelling, resulting in the appearance of relief, further supporting the attribution to a sculptor.

The figure stands in defined space, the left leg downstage of the right, with the floor divided by a series of hatched lines under the figure's feet and up behind the body. This figure is made to stand in a recognised area, the surface of his body establishing the frontal picture plane. Comparison with the completed relief brings similar problems to those encountered with the *Study for the Fonte Gaia*, for this figure bears little resemblance to the final figures on the Baptismal Font and, as such, must be considered an early idea. While the facial features are somewhat less soft than the Virtues of the fountain, the facial expressions are close to the figure on the right of the relief panel.

There are links to the style of drapery and the design of garments used in the *Study for the Fonte Gaia*, but there is rather more confidence in the line, which suggests that this is a development on from the designs for the fountain. The distinguishing features, prominent in the studies which bear out the hand of Jacopo della Quercia, have to be viewed taking into account what seems to have been a considerable amount of over-working. The claim that such over-working is additional work, is based on the stage at which other drawings

wearing the hat. This sheet has then been glued to a second, slightly larger sheet. The sheet is not currently mounted. The drawing has been considerably over-worked and, as such, it is difficult to determine the initial quality of the sketch.

within the series have been considered finished and have been left by the artist. This drawing was, in all probability re-worked, either by Jacopo della Quercia or by an assistant.

The figure is not related to the Virtues of the fountain in terms of its facial features and the hands are certainly not drawn by Jacopo della Quercia, although they may have been drawn again later by an assistant. The feet would also seem to be more developed than before. The feet of the male figure, as the hands, are more confidently drawn and are not in the same elongated style as the *Study for the Fonte Gaia*, indeed they are quite unlike the hands in the third of the trio of drawings, *Madonna and Child between a Saint and a Donor*. The feet of the figure of Acca Laurentia may have provided the idea for the stance of the figure, her original stance reversed in this case. The drapery is similar to figures on the *Fonte Gaia*, particularly the cloak of Rea Silvia and Temperance, where there is comparable handling of the positioning of the cloak and the area of material around the chest. There is almost a now characteristic fall of drapery over the right arm, although here it is executed more clumsily and with less grace than before.

The drawing looks dissimilar to those associated with Jacopo della Quercia, but close scrutiny of its style uncovers many of the characteristics of the earlier studies. Given that this figure has been prepared for a relief, there is a difference in the intent of the artist. While qualities of sculptural design are displayed in the handling of the figure, it does not appear as a free-standing,

three-dimensional figure. It appears strangely flat, the necessary modelling appearing heavily on the surface of the sketch, with a flat back to the figure. The outline of the figure is heavier than before and places the figure against the backdrop of the composition, raising it from the background.

The now familiar hatching technique is consistent with the other studies. The stroke is nonetheless heavier than before (due in part to over-working) and does not display the same sense of delicacy. The areas of drapery to the right of the cloak are modelled using long base lines of hatching running vertically along the contours of the cloth. The hatching is then built up with diagonal lines. These lines become almost black at the bottom of the cloak, the building of the hatching no longer distinguishable. The areas of thin folds in the middle of the garment are created using the base-hatching, overdrawn with small, darker lines to create depth. The hooked shading used, in earlier studies, to take the eye around the body, is not used to great extent in this case, the necessity to create a figure in the round having disappeared. The effort in creating areas of relief is seen in the amount of detail and the varied areas of modelling around the drapery which hangs over the right arm of the figure. Here the outlines of the drapes have been gone over and accentuated, bringing the stress of the modelling to the surface, the hatching becomes much more heavy and less controlled in the areas of deep shade.

At the end of this study of Jacopo della Quercia's drawings there is evidence of the existence of a corpus of drawings related to the artist. Therefore a corpus of work, albeit small, can be related to sculptural work early in the century. The

case for a consistently positive attribution to Jacopo della Quercia has been weakened by a failure properly to take into account his early training as a goldsmith, as well as the influence the work of the illuminators of the trecento and early quattrocento may have had on his work. This would suggest a delicate, detailed approach and not a more flamboyant, free style of drawing.

The drawings show remarkable consistency in terms of handling. The use of hatching is consistent in the move from the establishment of a base of hatching which is then built up in various areas and to differing degrees to create areas of modelling. These lines are not simply lines of shading to create effect but can be contoured as incised lines, creating physical lines on stone or marble. In all of the drawings is the sense of a desire to create weight and plasticity and to create for the viewer, as well as for the patron, a sense of three-dimensionality.

The drawing for the *Fonte Gaia* is unusual within the quattrocento. It is unique in looking back to the trecento and the work of the Sienese artists, illuminators and goldsmiths, but its traits are also to be seen over a hundred years later in the work of the sculptors of the early sixteenth century. Earlier historians have been hesitant in voicing their opinion on the authorship of any drawings by Jacopo della Quercia:

The reasons for this hesitancy fall under three headings: the rarity of original fifteenth-century drawings; the alleged differences between the style of the drawing and Jacopo's sculptural style; and the hesitant and at times awkward lines of the drawing, which appears to contrast with the freedom and impetuosity of the artist's personality.⁵⁴

⁵⁴ Krautheimer, 1952, 272.

While still a rare commodity, a small corpus of drawings has been established, the difference in Jacopo della Quercia's sculptural style and his drawing style can be explained by a failure to take into account his initial training and influences; the "impetuosity" in his sculptural style is seen later in his development, when he was more experienced in creating large-scale sculpture, and not at this time when, embarking on such work, he shows obsessional regard for detail in line with his experience at that point. Jacopo della Quercia was not an artist trained in the traditional workshop sense, perhaps not confident with the pen, but, all importantly, a sculptor whose greatest desire in his drawings was to create in three dimensions.

The series of drawings by Jacopo della Quercia represents the foundation of development throughout the century. Here, the artist, unfettered by given workshop conventions, uses his experience to move forward of a basic drawing technique towards a method which affords a range of strokes with which to render in three dimensions. Such works establish the starting point in the creation of a corpus of sculptors' drawings in the quattrocento and set in context the stream of development which led to a new and meaningful form of graphic expression.

THE EARLY DECADES OF THE CENTURY IN FLORENCE

The corpus of sculptors' drawings from the quattrocento is established in Siena with the work of Jacopo della Quercia, whose style showed an individuality in keeping with the expressive needs of the artist. The study now turns to the work of his contemporaries working in Florence during the first decades of the century. The most prominent of sculptors working in the city at this time is Lorenzo Ghiberti.¹ Few drawings remain that can be attributed with certainty to any Florentine sculptor working at this time and no documentary evidence exists which might connect Ghiberti with the two drawings usually considered as being by his hand. However, the information to be gleaned from the drawings reputed to be by Ghiberti and by the circle of artists working alongside him, as well as providing contrast with the work of the Sienese, offers vital insight into the psychology of the artist at work, while providing work for consideration as part of ongoing quattrocento development.

In light of a dearth of autograph drawings, it is necessary to find alternative sources of information on graphic activity at this time through documentary writings and sculpture. The greatest source of information is Ghiberti's own account of his life and times, *I commentarii*.² Only one manuscript exists but

¹ Schlosser; Krautheimer, 1937; Ghiberti, ed., Morisani; Krautheimer, 1947; Goldscheider, 1949; Ghiberti, ed. Niccolai; Courtauld Institute of Art; Krautheimer-Hess, 1964; Degenhart and Schmitt, 1968; Bloom; Krautheimer, 1970; Pope-Hennessy, 1970; Gage; Fenger; Morselli.

² Schlosser; Ghiberti, ed. Morisani; Krautheimer, 1947, 25-35, passim; Goldscheider, 1949, 19-21; Courtauld Institute of Art; Krautheimer, 1970, passim; Gage, 364-369; Fenger; Scaglia, for discussion on Ghiberti's adaptation of excerpts from Vitruvius in the *Commentarii*.

this is not autograph.³ Although beautifully and painstakingly written, comparisons with other documents known to have been written by the master, for example, his tax statements, prove that he did not himself write it.⁴ While it is not known how many copies were made (it is reasonable to think that a few were produced for reference), it is known that Vasari's friend Cosimo Bartoli owned this copy at one time and it is likely that Vasari used this copy for *Le vite*.⁵ The text breaks off in the middle of the *Third Commentary*, either because of Ghiberti's death or because the copyist gave up on his labours.⁶ Another copy did survive into the sixteenth century, as research has revealed that it was used as a source by an anonymous author of another treatise, the so-called *Codice Gaddiano* or more commonly, *Codice Magliabecchiano*.⁷ *I commentarii* provide important information on two counts, firstly, Ghiberti's early artistic life as a painter, and secondly, his reverence to the art of the goldsmith. It is these two sides to his nature which are represented by the two drawings generally associated with his hand.

Little, if anything, is known of Ghiberti's early training, but it seems he began his artistic career as a painter, travelling with another artist to work in Pesaro shortly before the competition for the Baptistery Doors.⁸ It seems likely that, as well as training as a painter, his stepfather, Bartolo di Michele, also trained

³ Ms. II, I, 33, currently in the Biblioteca Nazionale in Florence.

⁴ It is clear that the author of this manuscript did not fully understand what he was writing about, as the text contains many omissions and mistakes which might have been corrected by a more knowledgeable scholar.

⁵ There is a hand-written inscription: "*Di M. Cosimo di Matteo Bartoli n.º 6*".

⁶ For further discussion on the reasons for the break off in writing see Fengler, 270-273.

⁷ It was named after the libraries in which it was housed. Today the manuscript is in the Biblioteca Nazionale in Florence. A later date of 1537 to 1542 is nowadays accepted given the fact that the author cites Vasari and was aware of his work on *Le vite*.

⁸ Fengler, 54-56. See also Courtauld Institute of Art, 21.

him in the art of the goldsmith.⁹ This gives Ghiberti a certain uniqueness in the present discussion, for, given his later concentration on sculptural work, he would seem to have had an assortment of techniques and levels of experience within his artistic portfolio. In *I commentarii* he wastes little time speaking of other goldsmiths, nor does he feel obliged to praise painters, in general avoiding any discussion of contemporaries. However, he does devote time to the great Sieneese masters, particularly Simone Martini, whose own work was influenced by the Sieneese sculptors, and to Ambrogio Lorenzetti.¹⁰

It is not surprising that Ghiberti admired the Sieneese, for it is with the Sieneese that he shared the movement and delicacy that would pervade much of his work. The stylistic link in his early work is not only with the Sieneese, nor with sculptors, but also with the work produced by goldsmiths. It becomes clear in his writings that he did not think of himself principally as a sculptor, but as a master in a new field, taking forward a new style of relief work in bronze. Ghiberti saw his bronze work as an extension of his goldsmith craft and not something distinctly new to him. In the second book of *I commentarii*, he illustrates his love of the detail and intricacy of the goldsmith's art. Speaking with reverence and pride about his work in this area. He cites a number of examples:

Two little angels, holding in their hands an olive wreath on which the letters of their [i.e. the martyrs'] names are written, are sculpted on the front. At that time I set in gold a cornelian the size of a nut with its shell, on which were carved three very excellently done figures by the hands of a very fine ancient master. For a clasp I made a dragon with its wings slightly opened and the head lowered; in the middle it raises its neck, and the wings made

⁹ Bartolo di Michele matriculated to the Arte della Seta in 1376, marrying Ghiberti's mother after the death of her husband, having been her common-law husband from about 1375 or 1378. Ghiberti did not matriculate as a goldsmith until 1409.

¹⁰ Fengler, 34-35. See also Courtauld Institute of Art, 18.

the handle of the seal. The dragon, we mean to say serpent, was among ivy leaves; around these figures were antique letters cut by my hand, which I made with great diligence, spelling the name of Nero.¹¹

The statue of *St. Matthew*, an important work in Ghiberti's career, is given little more than a passing mention, but the mere reminiscence of his goldsmith work, clearly excites Ghiberti. This suggests that the artist was more at ease undertaking this type of work and it is clear that he possessed a great love of the opulence of the goldsmiths' work in which he was involved, from the same passage:

(When) Pope Eugene came to live in the city of Florence, he had me make a gold miter, the gold for which weighed fifteen pounds (and) the stones weighed five and one half pounds. They were valued by the jewelers of our city at thirty-eight thousand florins. There were rubies, sapphires, emeralds, and pearls. On this miter there were six pearls as big as hazel nuts. It was decorated with many figures and with very many adornments and on the front part is a throne with many little angels around and our Lord in the middle; . . .¹²

Ghiberti is enraptured by the opulent materials he has come to work with, such fascination contributing to the enthusiasm with which he describes achievements of which he was obviously proud. This pride is not preserved for himself within the text, for within the pages of his reminiscences he pays reverent homage to a man he had never met, the Master Gusmin.¹³

Master Gusmin has long remained a mysterious figure in art, having been identified with various artists from the period, but to Ghiberti, as to a modern-day audience, he remains an enigma. Certain facts about him are clear. Within

¹¹ Fengler, 60-62. See also Courtauld Institute of Art, 21-22.

¹² Fengler, 63-64.

¹³ The phrase "*nominato Gusmin*" appears in the *Codice Magliabecchiano* but not in the manuscript Ms. II, I, 33. Either the copy did not have the name or the copyist missed it out. In the existing manuscript there is not even a space for the inclusion of a name. See Krautheimer, 1947, 26, for a discussion on the roots of Gusmin's name. See Fengler, 47-48, for an extended passage on the Master Gusmin.

the Ghiberti text, Gusmin is categorically identified as a goldsmith, he is said to have lived in Cologne --although to a fifteenth-century Italian this would have meant that he hailed from the area of the lower Rhine -- and he died around 1415-1420. Gusmin could only have worked for Louis I (1339-1384), the brother of Charles V of France and given that he produced so much work ("*moltissimi lauorij d'oro*"), he must have been employed as a court goldsmith.¹⁴

The identity of Gusmin may never be known, and, given that his work has been destroyed, the chances of identifying any piece by him are disappointingly distant. Although nothing has been identified of Gusmin's work, it is important to consider the work of Ghiberti's time against the backcloth of a number of such influences. The Sieneese have already been mentioned, but he also looked to Northern art, particularly the work of the French goldsmiths. Much of this work had been influenced, in its turn, by the work of the northern illuminators:

The origin of Ghiberti's style can only be understood against a background that goes beyond Florentine or Sieneese art, to include Northern art as well, specifically that of fourteenth century France. From the 1320's on a new style, was being shaped in France, combining volume with elegant linear form. In manuscript painting, saturated with Italian influences, largely from the circle of Duccio, this style was primarily set by Jean Pucelle and his Paris workshop. But it also came to the fore, though perhaps a decade later, in goldsmith work and stone sculpture, as witness the silver *Madonna* of Jeanne d'Évreux (1339) from St. Denis, now in the Louvre, and the *Vierge Blanche* at Notre Dame in Paris (*ca.* 1340).¹⁵

Regrettably, little remains of thirteenth and fourteenth-century goldsmith work.

Ronald Lightbown's research has established the principal types of medieval

¹⁴ Louis was one of the largest collectors of goldsmiths' work of his time, his collections were known all over Europe. The inventories illustrate his wealth and his love of the art, adding to the aura of Gusmin's status as a leading master. See later discussion on Louis d'Anjou's collections.

¹⁵ Krautheimer, 1970, 54.

secular plate from existing accounts, inventories, and existing pieces.¹⁶ The plate of the royal family in the first half of the fourteenth century is reported in the inventory of the *Argenterie* (Wardrobe of the Kings of France), published by Douët-d'Arcq in 1851 and 1874. The Valois inventories provide the most important source in the second half of the century.¹⁷ Two inventories for the collection of Louis d'Anjou survive, drawn up by Louis himself. The first (MS fr. 11861, Bibliothèque Nationale) lists around one thousand pieces and was drawn up in around 1366.¹⁸ An updated version of this first inventory was published by Georges Ledos in 1889, based on the discovery of several of the forty-two leaves which were missing from the 1366 inventory.¹⁹ Lightbown concludes that the 1366 inventory reflects the contents of the Duke's collection up to 5 November 1364, and that the "second" inventory (called for convenience "the 1365 inventory") reflects the contents of the collection after Louis had visited Avignon and received several presents from those he had visited.²⁰

The second inventory of the collection of the Duke d'Anjou was drawn up fifteen years after the first (Nouv. Acq. fr. 6838, Bibliothèque Nationale, Paris),

¹⁶ Lightbown, 1978, Chapter II, 10-19.

¹⁷ The granting of large feudal holdings to the royal princes by King Jean le Bon (ruled 1340-1364) enabled the royal princes to accumulate large collections. Louis d'Anjou (1339-1384), Jean, Duc de Berry (1340-1416), Philippe, Duke of Burgundy (1342-1404), Charles, Duke of Normandy (succeeded his father in 1364), all amassed great collections, the collection of Louis d'Anjou the most significant. Lightbown, 1978, 10.

¹⁸ The inventory was drawn up by the Marquis de Laborde in 1853. He based this dating on the fact that the collection contained pieces bearing the arms of the Duchess, whom Louis had married in 1360. The inventory also contained three entries by the Duke from before March 1369. Inventory number 203 is preceded by an entry which states, "This is the inventory of gold and silver plate, enamelled, gilt and white, both of that we have brought with us from France, as of that which has been presented to us and that we have bought at Avignon and in Languedoc". Laborde concludes a date of 1366 for the inventory based on Louis's governorship of Languedoc in 1364 and a visit to Avignon in December 1365.

¹⁹ Ledos, 168-79.

reflecting a collection which had grown from around one thousand to about four thousand pieces.²¹ The inventory is one of even greater precision, allowing the visualisation of every detail of the collection. Interestingly for this discussion, it also lists the principal features of objects made for or acquired by Louis after 1369, many of which may have been designed and made by the Master Gusmin.

In addition to the inventories of the Duke d'Anjou are those of Charles V (from 21 January to 12 July 1379 and 5 April to 11 April 1380), charting a collection of around 2500 pieces, and the inventories of Jean, Duc de Berry (1401-1402 and 1413) and the inventory published posthumously of 1416.²²

Among the few remaining pieces from such collections is the *Sceptre of Charles V* (figure eight) which was wrought before 1379.²³ The figure of Charlemagne rises out of a fleur-de-lis, the throne resting on top of a flower head. The opulence is obvious, for the figure is made of solid gold, and then gilded. There are marked similarities with Ghiberti's figure of Abraham, the strong features to the face, the skin pulled across a defined bone structure, the fingers of the figure's left hand stretched to grasp the heavy orb and the swathes of heavy drapery. In terms of an attempt to determine what kind of

²⁰ Lightbown, 1978, 10-11.

²¹ The second inventory relates to the collections of the Duke from around 11 February 1379 and was completed before the death of Charles V, 16 September 1380. Moranvillé published this inventory between 1903 and 1906.

²² The copy of the inventory of Charles V, made for Charles VI was published by Labarte in 1879. An earlier inventory remains unpublished, MS fr. 21447, Bibliothèque Nationale, Paris. The inventories of Jean, Duc du Berry were published by Guiffrey in Paris, 1894-1896. Lightbown, 1978, 11-12.

²³ Darcel, 943 (Darcel's catalogue of 1891 was supplemented by E. Molinier). The top and the pommel of the sceptre are authentic. The staff, dated 1394 was added in 1804 for the coronation of Napoleon I. Labarte, 1879, No. 3449; De Vasselot, No. 149, 30; Krautheimer,

drawing might have existed for such a commission, the figure provides an interesting comparison with one of Ghiberti's statues, for example, the *St. Matthew*. The figure of Charles is confined within its medium. It is controlled within a tight outline, held within its structure by the material of which it is made. The *Saint Matthew* exudes an altogether freer spirit, a figure which might have moved outside its outline structure, the line much more fluid in execution. The drawing for the gold sceptre would have been very small and intricate, in keeping with the need for controlled detailing, and the confining features of the physical material. The drawing for the statue, on the other hand, would have afforded the artist more psychological freedom in its execution, the artist aligning his graphic conception with the size and final character of the piece, knowing that he would be less able to control the confines of the drawing's outlines in the figure's final execution.

The *Bust of Constantine* (*figure nine*), created in a Paris workshop, correspondingly shows precision in the detailing, particularly on the mount itself, the foliage growing towards the rim of the mount with details of gothic and circular windows around the parapet of the base itself.²⁴ The red (?) fleur-de-lis of the bulb portion at the bottom of the base have been carefully painted in. These are now almost faded beyond recognition, but still show traces of the artist's interest in detail. The upper body is carved from marble, with a cloak of gold over the marble chemise. While lacking the refinement and ultimate opulence of the *Sceptre of Charles V*, this piece is a rare representation of the work of goldsmiths and of their concerns in working with precious metals, their

1970, 50-67. See Douglas, 419-421 for discussion on Sieneese goldsmith work of the period.

designs dominated by the propensities of the material. Both these pieces show a move towards naturalistic representation, the metal contrasting with the delicate foliage which grows to support the object of attention in a near organic sequence. Ghiberti was impressed by the precision of these goldsmiths and by the grace with which they enlivened their work, but he moved forward of them in terms of his own development in the *Gates of Paradise*, by creating even more slender figures, more decorative patterns, and a greater sense of movement. If he did create working drawings for the *Gates of Paradise*, they may well have reflected a stylistic developmental change from very controlled precision to more freely expressed lines, but this is merely speculative. It seems altogether fortuitous, however, that the two drawings most strongly associated with Ghiberti should reflect, on the one hand the work of the goldsmiths and illuminators, and on the other, the work of painters.

Ghiberti is known to have executed countless drawings and models for other artists, as he himself so indicates:

I also created very great honors for many painters and sculptors and statuaries in their works by making very many wax and clay models and by designing very many things for painters. Also, to those who had to make figures larger than life, I gave the rules to carry them out with perfect proportion.²⁵

Within the same paragraph he goes on to be more specific:

I designed on the facade of Santa Maria del Fiore in the central roundel the Assumption of Our Lady, and I designed the others that are on the side. I designed many glass windows in that church. In the tribune there are three roundels designed by my hand. In one is how Christ goes to Heaven, in another the prayer in the garden, and the third when He is taken to the temple. Few things of importance were made in our land which were not designed and arranged by my hand.²⁶

²⁴ Babelon, No. 14, 128; Krautheimer, 1947, 30. Krautheimer, 1970, 64-65. The figure itself is from around IV century, while the drapery is from a Paris workshop of around 1380.

²⁵ Fengler, 74. See also Courtauld Institute of Art, 24.

That Ghiberti did produce drawings cannot be doubted. Ghiberti's own accounts are supported by Vasari:

Lorenzo was the son of Bartoluccio Ghiberti. From his earliest years he studied the goldsmith's art with his father, whom he soon outpaced although Bartoluccio was an accomplished craftsman. Lorenzo, however, was more interested in sculpture and drawing, and he used sometimes to use colours or cast little figures in bronze, finishing them very gracefully.²⁷

An article by Trude Krautheimer-Hess, "More Ghibertiana", highlights the importance of another work which reflects Ghiberti's attitude to drawing, the *Zibaldone* by Buonaccorso Ghiberti (1451-1516), a notebook to which Buonaccorso added until the early 1490s.²⁸ Buonaccorso was Ghiberti's grandson and his name appears in the tax declarations written by his father Vittorio (1416-1496) as the head of the workshop.²⁹ Buonaccorso inherited his grandfather's books and writing implements when he was made legal heir in 1455, a fact he himself attests to in his *Libro di ricordanze* (1496-1511).³⁰ The material includes excerpts from Vitruvius's *De architectura libri decem*, beginning with folio 7 and then a series of almost whole chapters, all chosen in a logical order.³¹ The omission of technical data in relation to the design of

²⁶ Fengler, 74-75. See also Courtauld Institute of Art, 24. For a full inventory of drawings for the windows of Santa Maria dei Fiore, stonemasonry and architecture, see Appendix One: *Ghiberti's Designs for External Commissions*.

²⁷ Vasari, trans. Bull, 106.

²⁸ Corweh, 169. He dates the *Zibaldone* between 1472 and 1483, although he had no knowledge of Buonaccorso's handwriting.

²⁹ Scaglia, 3, and footnote 4. The work of Buonaccorso and Vittorio is documented in the Archivio di Stato, Firenze, Vol. 40, *Giornale e ricordanze* c. 1482-1484, when they were responsible for the casting of bells for the church of Sta. Maria Nuova. Vasari is confused when he states, "Lorenzo had a son called Buonaccorso". Vasari, trans. Bull, 121.

³⁰ Scaglia, 3, as reported by Krautheimer-Hess, 1964, Appendix C, 318-320. The documents were written by Buonaccorso and his first wife Mona Maddalena, Florence, Archivio del Ospedale degli Innocenti, ser. CXLIV, *Estranei*, Vols. 546, 547, 548. Vol. 547 is a *Libro di debitori ed creditor*, while 548 is a mixture of *ricordi* and accounts. See the article by Krautheimer-Hess for further discussion on the problems associated with Lorenzo Ghiberti's will.

³¹ These include, in Book III: On Columns and Inter-columnations of the Temple; The Columns, Steps and Podium; The Ionic Order; in Book IV, The Corinthian Order; The Doric Order; The Method of Fluting; The Cella, Columns of the Pronaos and Their Optical Effects; Siting of Temples; Doorways and Their Styles of Ornament; The Tuscan Temple; Circular Temples. Scaglia, 7. The Vitruvius text had been rediscovered by humanists in the

shipyards, harbours and theatres, illustrates a love of the aesthetic side of architecture and little interest in the more technical aspects of such a subject, e.g. theatre acoustics, which would have involved a study of mathematics. There are copies of two types of drawings which derive from originals which were contemporary with Ghiberti, one group of antique pieces from Rome, the second representing mechanical devices.³² There is not a copy of a drawing by Lorenzo Ghiberti himself or copies of any trecento drawings in evidence. The *Zibaldone* highlights an interest in mechanical and architectural work, projects which must have called for drawings of a specific level of detail, and points to there being a large selection of different types of drawings within the workshop. Vasari reflects the quality of Ghiberti's drawing collection towards the end of his account of his life: "I had these designs, along with some by Giotto and others, from Vittorio Ghiberti in 1528, when I was still a young man, and I have treasured them ever since because of their beauty and also in memory of such great men".³³

The existence of drawings such as these leaves little doubt that Ghiberti was an admirer of good draughtsmanship and leads Krautheimer-Hess to discuss the possibility of Ghiberti having been a collector of drawings, a possibility also discussed by Otto Kurz.³⁴ While the prospect of there having been a collection of drawings owned and handed down by Ghiberti is an interesting one,

quattrocento and copies had been made for the royal libraries and fellow humanists. Scaglia, 3; Borsi, 195-196.

³² Krautheimer-Hess, 314-315, points out that these go back to Brunelleschi, the great majority of the sketches relating to the construction of the cupola of Santa Maria del Fiore.

³³ Vasari, trans., Bull, 123.

³⁴ Kurz, 3-4. He points out that Vasari was acquainted with Vittorio Ghiberti and acquired a number of drawings from him which might have constituted part of Lorenzo Ghiberti's own collection, for Ghiberti would have been in a good position to collect from a range of sources.

Krautheimer-Hess points out that the evidence remains circumstantial.

However, the fact that Vasari owned drawings by ten of the fourteen artists treated by Ghiberti in *I commentarii* might be treated as something other than a coincidence.

Scarcity of drawings by Ghiberti himself may mean that he made little use of designs as working drawings. He states most emphatically that he *did* create designs, cartoons and models for other artists, but when working on his own projects he may have produced very few drawings, except in very sketchy form, e.g. the Albertina study, *Five Studies for a Flagellation of Christ* (3). The drawings that he did produce for others to copy would, of course, be a valuable source of information, and it is likely that these would be directly copied with very little alteration. A drawing must have existed for the window of Florence Cathedral, *The Assumption* (figure ten), which was executed by Bernardo di Francesco, and would have been transferred more or less straight onto glass.³⁵ While the drawing is lost, the window still exists and could be considered as representative of Ghiberti's style of drawing at the time, in the broadest sense.³⁶ There is similar information to be gleaned from Donatello's contribution to the Cathedral programme, the *Coronation* window (figure eleven), the composition of which appears in relief, the figures pressed forward of their background, such work foreshadowing later discussion of Donatello's

³⁵ 15th January 1444. The window was the first of the series and appears above San Zanobi's tribune above the main entrance. See Di Cagno, 97-99 for details of the series of windows in the Cathedral.

³⁶ Marquand, 192-203; Krautheimer, 1970, Fig. 7, 54. Krautheimer considers that Ghiberti used Bartolo di Fredi's *Assumption* on the pinnacle of the Montalcino Altar of 1388 as the model for his window. See also Appendix One: *Designs prepared by Ghiberti for execution by another artist*.

drawing style.³⁷ Ghiberti's design is different from Donatello's in many ways, particularly in the attention to detail and to composition, but Donatello's design is altogether fresher and more modern. The Ghiberti window is tight and fussy, with a traditional composition in relation to the Virgin's ascension to Heaven, seen in the midst of a host of accompanying angels. However, the angels, particularly to the Virgin's right, are very animated. They are in contrast, from this point of view, with the rather sombre Virgin. Such a design sees Ghiberti being submerged in the tightness and miniaturist approach of the goldsmith, unlike Donatello, whose characters have freedom of movement, no additional theatrical presentation needed to impart the emotion of the scene. Even given that this is a window, executed by another artist, it is still possible to conceive of the design on the window as a drawing, and to learn something of the character of the Ghiberti approach to drawing at the time, certainly not the drawing style of a painter, but of a goldsmith.

There is little source material available for study from this period of the century in Florence. Two drawings are linked to Ghiberti with varying degrees of certainty in relation to their authorship: a contract drawing which may have been produced for Ghiberti's statue of *Saint Stephen* at Or San Michele, and a sketch, *Five Studies for a Flagellation of Christ*. A study of the drawings will be undertaken in order to assess their place within the corpus of sculptors' drawings from the quattrocento, and to probe their style and technique in relation to their contribution to ongoing developments.

³⁷ The details of the design are recorded in the Cathedral archives, the design accepted 14th

The Study for Saint Stephen

In a document dated April 2, 1425, the consuls admit that the tabernacles of the Calimala and the Cambio are superior to those of the woollen guild.³⁸ Given the competition between guilds, the Arte della Lana was extremely keen to have a statue of similar quality to those of its rivals. The contract is now lost, but it is reasonable to believe that a contract drawing would have been prepared and presented during 1425. Most art historians agree that the drawing currently in the Louvre -- *Study for Saint Stephen (2)* -- is connected, in some way, with the commission for the statue.³⁹ The drawing is unusual within the corpus of works of the quattrocento, in terms of the medium -- tempera on linen with gold highlights -- and its size -- 690 × 300 mm -- adding weight to the theory that it is a contract drawing. It seems impossible that it was produced for commercial purposes or as a training exercise and could well have been produced for pleasure.

The marble panelling to the back of the niche, the triangular fillings of the spandrels, and the edges of the niche are slightly purple, while the ground of the pediment and the vault is black and set with gold stars, adding to the grandeur of the drawing.⁴⁰ Other areas are similarly treated, the cornices of the niche (behind the head) are black on the left, with brown specks on a lighter

April, 1434. See Marquand 192 and Krautheimer, 1970, 413-414.

³⁸ Chambers, 45.

³⁹ Kaufmann, 1929, 1-10, one of the few historians seeming to give any weight to the drawing being autograph, feels it must have been prepared by his workshop, if not by Ghiberti himself; Berenson, No. 2391 B, as Rossello di Jacopo Franchi, *Study for Young Saint in Niche*. Goldscheider, 1949, thinks an attribution to Ghiberti "impossible", No. 51, 153; Krautheimer, 1970, considers the drawing "timidly done" and so not by Ghiberti, 98; Degenhart and Schmitt, 1968, No. 192, 293-295 (as Ghiberti).

⁴⁰ Many historians have described the background colour of the linen as *blue* or *bluish-black*. The linen may well have been dark-blue at one time, but nowadays is very black indeed, no bluish tinges visible with the naked eye. Similarly, it is difficult to differentiate between the

brown background on the right. The figure of the saint and its base are brown, with the hem of the garment picked out in gold.⁴¹ On the socle are the words, *SCS STEFANUS MAR* in gold. It had possibly been owned by Baldinucci. To the bottom of the drawing is pinned a slip of paper with seventeenth-century handwriting, presumably that of Baldinucci, which reads: “*Di Lorenzo Ghiberti che fece le porte di S. Gio. Ni: è il disegno della statua di Bronzo fatta dall medesimo nella nicchia di Orsanmichele per l'arte della Lana circa all-Anno 1420*”.⁴² Within this niche, coloured (originally) in blue, purple, red, and gold, stands the figure of Saint Stephen. It is rather a subdued figure and similar, in mood, to the sombre Virgin in the *Assumption* window of Florence Cathedral. The style of the drapery is also similar. The drapery is softened by slight highlights, giving it a tactile feel. It moves somewhat more freely from the neck to the waist than it does from the waist to the floor when it takes on a slight stiffness. The detailing on the material has been carefully drawn by an artist who shows understanding of the effect of gold on paper, for example the name of the saint on his plinth, very finely done, and, of special mention, the fineness of the gold work around the figure of the saint's left hand, as the small golden pieces of the fringe fall onto the skin. The hands are disappointing, in that one might have expected some attempt to emulate the influence of the French and create more elegant and tapering fingers, but such an inclusion may

various colours to the niche.

⁴¹ Age has rendered the gold highlights very dull, the figure of the saint has similarly rather faded into the background, to the extent that the figure is only slightly more golden in colour than the architecture which surrounds it.

⁴² The reverse of the slip reads, “*Baldinucci, tome 1, p. 22*”. Degenhart and Schmitt consider that Baldinucci accepted the drawing as being by Ghiberti: “He considered the drawing an autograph design by Ghiberti in connection with his commission to create a statue for the Arte della Lana”. Degenhart and Schmitt, 1968, 293.

have interfered with the personality of the figure, more trecento than quattrocento.

Even given that it is a large drawing, the feeling is not one of great monumentality, for the drawing style preserves the features of a miniaturist and someone who has knowledge of, and possibly experience in, illumination, hence the use of colours and gold for detailing.⁴³ The figure itself stands in an identifiable space, care having been taken to create depth behind the figure, particularly in the pilasters which recede into space and are representative of an effort to “beautify the niche” (“*ornetur tabernaculum*”).⁴⁴ The dome above the head has been drawn with an attempt at perspectival representation, but is rather confused, particularly at the centre of the dome. There is a similar lack of confidence in the perspective of the base on which the figure stands, which lies uncomfortably, tipped up towards the viewer rather than receding back into space. The triangular pediment adds height to the niche and the overall effect, especially in the slender columns to either side of the front of the niche. The vases on top of the niche further add to the feeling of elegance, the architectural structure framing the figure of the saint as the centre of the composition, supporting the fluidity of its figure. The detailing of the architecture is of a high standard, particularly the dentils across the entablature, highly reminiscent of Greek architecture, but perfectly represented below a shallow frieze. The two capitals of the outer columns are not seen face on, but are turned slightly

⁴³ The present condition of the drawing means it is difficult to fully appreciate its original condition. The linen on which the drawing is executed is very dull and shows several pulls in the cloth, which renders the surface of the drawing somewhat shabby.

⁴⁴ Krautheimer, 1970, Document 107, 385.

outwards, the right-hand capital more so than the left. The frieze above the dentils is repeated at the base of the architectural frame.

The drawing has obvious similarities to the finished statue, but there are differences, particularly in the detailing (*figure twelve*).⁴⁵ On the whole, the statue and the drawing are similar in terms of stance, pose and weight distribution.⁴⁶ The figure in the drawing holds the martyr's palm (the palm from the statue has long since been lost) and each holds a book. The drapery seems, at first, dissimilar, the robes of the saint in the drawing being rather flat and lacking movement, while the statue itself has much more elegance, the drapery being much more stylised and exuding much more movement, in keeping with the fluidity of the International Style. Closer study shows a firm relationship between statue and drawing in terms of detailing and strengthens the case for the drawing having been used as a basis for the final design. The folds of the outer cloak around the shoulders of the statue and the figure in the drawing are the same. The drapery on the right shoulders of the two figures falls open in a comparable way, while the drapery on the left shoulders is turned out and falls to the waist with the same shape and movement, revealing the same area of the garment below. The drapery around the statue's middle is much more fluid and defined and shows stylistic development on from the drawing, where such handling is tentative and lacks movement. Similar development can be seen in a comparison with the area of drapery over the left

⁴⁵ The niche in which the figure of Saint Philip stands at Or San Michele is closer to the niche in the drawing than that of the figure of Saint Stephen, particularly in the ceiling area where gold stars appear against a blue background. The idea for this niche may well have come from the drawing, to which Nanni di Banco could well have had access. See *figures thirteen and fourteen*.

⁴⁶ For an interesting comparison of the proportions of the two figures, see Morselli, 235-241.

leading leg. The drapery falls from the waist over the leg in three swathes. The drapery in the drawing is rather flat with little illusion of weight, while the drapery of the statue has been pulled up to sit higher at the figure's waist. This change to the drapery accentuates the area in the middle of the figure, at the same time revealing more of the leg shape. The finished sculptural figure seems to stand with weight and authority within the niche. The illusion of the potential for movement is achieved because, in his mind, the artist has first created a physical shape and has then draped the clothes around the torso. This is not the case in the drawing where, in contrast, the drapery seems to support the figure. Here is perhaps the biggest difference between the two figures. While the head of the drawing and the statue share the same rather detached expression and the same heavy bone structure above the eyes, the head of the statue is altogether more dignified and more naturalistic, the face constructed over a frame of bones much as Isaac in the competition relief. The artist who drew the drawing seems to have little anatomical knowledge in comparison with the sculptor. As the figure in the drawing stands on a hexagonal base, while the finished statue stands on an octagonal plinth, the drawing cannot be a copy of the finished statue.

The drawing itself is reminiscent of trecento figures, particularly a statue of *Saint Stephen* by Piero di Giovanni Tedesco, formerly of the façade of Florence Cathedral, and now in the Louvre.⁴⁷

Strange as it may seem, this *Saint Stephen* recalls the figure in the Louvre drawing. Obviously it is unlikely that the craftsman of the *Saint Stephen* in the prospectus drawing would have derived his design from a relatively

⁴⁷ The statue was known about from 1386 to 1402 when it was used in the garden of Gualfondo, then Oricellari. It was acquired by Gigli for the Marquis of Campana. The head has been replaced by another, a portrait of Eschyle.

small and unimportant figure which had no immediate ties to Or San Michele. Thus one wonders whether the common features of the prospectus drawing and of Piero di Giovanni Tedesco's statue of Saint Stephen were not drawn from the same prototype, the old marble statue of the deacon which the *Lana* had set up at Or San Michele in 1340.⁴⁸

This is a reasonable suggestion, in that Ghiberti was working with patrons who recalled what must have been a very fine statue of its time (*figure fifteen*). The time lapse between the drawing and the execution of the finished statue, a period of four years, would have allowed Ghiberti to work on and develop ideas which find their home in the completed work.

Within the corpus of quattrocento drawings, this is an unusual study, not only because of the medium in which it is produced, but also because of the character of the drawing. Similar representations are found in the early work of illuminators, in Ghiberti's case, particularly the work of the northern artists such as Jean Pucelle (active around 1320) and his successor Jean Bondol. The Ghiberti drawing could be said to mimic the semi-grisaille tradition of these Northern masters. It is known that Ghiberti revered the work of Gussone and that he had seen casts of his work. It is also clear from his *Commentarii* that he admired the work of the great Siennese artists, particularly Duccio, Ambrogio Lorenzetti, and Simone Martini, whom Ghiberti considered "perfect". Ghiberti accessed this work and with it took on the influences of the goldsmiths, book illuminators and miniaturists. It is possible that, as part of his more scholarly pursuits, Ghiberti himself sought out such work as a source of study and reference.

⁴⁸ Krautheimer, 1970, Fig. 3, 99. There are similarities with a statue of *Saint Lawrence*, also

Jean Pucelle, building on the work of the Master Honoré, was experimenting with three-dimensional representation. Pucelle's *Annunciation (14)*, produced for the Book of Hours of Jeanne d'Évreux, shows his interest in placing his characters in a perspective setting.⁴⁹ Just as in the *Study for Saint Stephen*, Pucelle continues the semi-grisaille tradition by using colours for backgrounds and human flesh.⁵⁰ Pucelle concentrates on the plasticity of the figures, less interested in accentuating the linear contours, such a prevalent feature of the work of earlier masters. The figure of the Virgin is set within a chamber where perspectival techniques have been used to create a convincing interior. The converging ceiling beams and walls, add to the feeling of space, an illusion supported by the darkened antechamber through which Gabriel enters. While highly creditable for the time, such early perspective work is not what might be expected of an artist working around a century later.

A drawing by Bondol (15) is similar to the *Study for Saint Stephen*. The drawing has been produced in a similar medium and on a blue linen background.⁵¹ As in the *Study for Saint Stephen*, the face and hands have been rendered in natural colour and gold has been used to decorate the ceiling (this time with fleurs-de-lis), cushions and canopy. This would not seem to be the first time Ghiberti was known to have used colour in his drawings: "Lorenzo,

by Piero di Giovanni Tedesco, a statue currently the neighbour of Tedesco's *Saint Stephen* in the Louvre. See also Kauffmann, 1929, 1-10; Degenhart and Schmitt, 1968, 294.

⁴⁹ See above, Chapter Three, 53-54 for earlier discussion and general background to Pucelle and Bondol.

⁵⁰ Panofsky, 1953, Pl. 3, 29-31; New York, 1957; Morand, Pl. IX (d), 13-16. The *Annunciation*, as part of the *Hours of Jeanne d'Évreux* is dated between 1325 and 1328, in line with the existing document. See Morand, 31.

⁵¹ Panofsky, 1953, Pl. 3, 29-31; New York, 1957; Morand, Pl. IXd, 13-16.

however, was more interested in sculpture and drawing, and he used sometimes to use colours or cast little figures in bronze, finishing them very gracefully".⁵²

It is not simply in the technical medium that there are similarities, but also in the character of the two drawings. Both studies are very placid and radiate a mood of reverence. The rendition of drapery is similarly soft, the drapery of the Bondol drawing much less detailed. There is no heroic content, characters simply exist within (and are constricted by) a defined space. There is a more successful rendition of floor space, with the servant set up-stage of the king on a convincing tiled floor surface, quite unlike the poorly designed plinth on which *Saint Stephen* stands.⁵³ The two drawings stem from the same traditions, the Northern drawing illustrating the influence such a style has exerted on the work of a sculptor who, in his turn, confesses his interest and knowledge of another art form. Although separated in time, they are not separated by intent.

Several facts are clear in relation to the *Study for Saint Stephen*. The drawing was probably produced by a goldsmith with experience of three-dimensional sculpture, in other words a sculptor who had been trained in a goldsmith shop. Unlike the *Study for the Fonte Gaia (I)*, there is no feeling of a desire to create three-dimensionality in the drawing. There is little hatching, and no clearly identifiable technique for the building up of surface modelling. The outline of the saint's left-hand side, from shoulder down to the ground is shaded to depict the area in darkness, but this is simply surface shading, with little attempt to

⁵² Vasari, trans. Bull, 106.

⁵³ The differentiation between the design of the base of the niche and the plinth itself surely points to the involvement of a second, and much less experienced artist. The completed statue, however, has been set in a more rounded niche, which helps the setting of

manipulate the stroke in order to create space around the figure, indeed the darkened outline around the figure of the saint rather flattens it against the background. However, as with Jacopo della Quercia's figures, this figure looks as if he has been set *into* a defined space, in the mind of the artist, much as the finished statue would be.

The possibility that Ghiberti might have produced the drawing seems remote, given what might be expected of a sculptor able to physically render so convincingly in three dimensions. Ghiberti was a goldsmith who would have taken on many of the traits of the miniaturist, work quite opposed to large scale bronze casting: "The designs that he did were superb and made with great relief, as can be seen in our book of drawings where there is his drawing of one of the evangelists as well as several others beautifully done in chiaroscuro".⁵⁴ It is quite possible that Ghiberti, faced with the need to produce a drawing (the kind of work he is known to have liked), reverted to his initial training, to what he knew, much as Jacopo della Quercia might have done with the *Study for the Fonte Gaia*. However, the drawing is most probably an early idea, produced by an assistant in the workshop for presentation purposes, later used as a template for the niches of Orsanmichele, given the fact that Nanni di Banco's statue of *Saint Philip* is sited in a niche where the ceiling design is entirely similar to that of the drawing.⁵⁵ Given his completed work and Vasari's testimony of Ghiberti's ability to draw convincingly in relief, it seems unlikely that this drawing is autograph.

the hexagonal plinth.

Five Studies for a Flagellation of Christ

Less doubt has been expressed in the authorship of the Albertina sketch, *Five Studies for a Flagellation of Christ*, which is almost universally regarded as being by Ghiberti. The *Study for Saint Stephen* is a contract or presentation drawing, drawn for a client and conceived to serve a specific purpose, here, in the Vienna sketch, the artist draws for another purpose entirely, to build a solution to a problem.

The Albertina's *Five Studies for a Flagellation of Christ* was first attributed to Ghiberti by Alfred Stix.⁵⁶ This attribution was endorsed by Richard Krautheimer and thought "reasonable" by A.E. Popham.⁵⁷ The main link between the drawing and the work of Ghiberti is with the *Flagellation* scene on the North Door of the Baptistery, in particular with the figure on the left of the panel. There are five figures sketched on the sheet, placed very carefully and probably sketched from top left to bottom right. The figures have different poses, as the draughtsman attempts to try out different ideas on paper. As the onlooker has to appreciate the repetitive strokes of the figures of the flagellators, and the resultant cruelty against Christ in the completed panel, it is important that the figures are convincing in their ability to repeat such an action for a length of time, such concern illustrating a developing sense of realism.

⁵⁴ Vasari, trans. Bull, 122-123.

⁵⁵ See *Figures thirteen and fourteen*.

⁵⁶ Stix and Fröhlich-Bum, 4, No. 8 (as Ghiberti).

⁵⁷ Popham, 1948, 56; Krautheimer 1970, No. 46, 129; Lányi, 1930, 46 (as drawing after Ghiberti from the second half of the fifteenth century; Goldscheider, 1949, 153 (as follower of Ghiberti -- perhaps Parri Spinelli); Benesch, 1967, No. 4, 319 (as Ghiberti); Degenhart and Schmitt, 1968, 289-293 (as Ghiberti).

The top three figures (1, 2, 3) relate to the finished left-hand bronze figure, the bottom two figures (4 and 5) to the right-hand soldier.

1
leans on right foot
to swing with right hand

2
moves weight to left foot
to strike with right hand

3
weight on right foot,
swings with both
hands

4
back to viewer - swings right
hand, weight back on right
leg

5
same pose as 4 -
weight forward on
right leg

The first figure (1) is the most active, its garment sways in the air as it almost lunges forward, as such, the freshest idea. The movement in this figure is impressive and has evidently been drawn by an artist who understands and can depict the movements of the body. The left arm swings across as the right arm is lifted and so there is a great sense of rhythm and balance, qualities which are illustrated in the final panel. This figure is the most spontaneous of the five.

The second figure (2) is the same figure at a second stage in the action. Having stepped back on the right foot (1), the figure now comes forward on the left, bringing the right leg around and raising the right arm to strike. The pose of this figure has been altered several times and as such it is difficult to determine the first strokes of the design, the over-working restricting much of the movement. This figure was obviously favoured by the artist, for it is closest to the finished sculpture. The completed figure, however, is rather more static and starts from a position of having both feet firmly on the ground, moving exaggeratedly from the waist, the left arm somewhat less natural than in the drawing. Such changes are understandable given the move from pen and ink to bronze, the restraint of the bronze calling for more manageable lines. The third of this trio of figures (3) shows the first figure at another stage in its labours

when it moves to strike with both hands. This figure is not used as such, but the artist does use the higher left arm in the right-hand bronze figure, illustrating the solutions he is able to take from the working sketch. The two figures at the bottom of the sheet (4 and 5) seem quite far from the finished work. Figure 4 is almost a negative of figure 2, while figure 5 is another idea, based on the fourth figure, where the figure of the flagellator stretches its body higher than in the previous sketch to gain even more power in the downward stroke of the whip. Although it is not possible to simply pick out two of these figures and ally them to the finished panel, it is possible to see the development of ideas as the artist works across the page. The final choices for the poses of the figures of the two soldiers are static in comparison to the drawn figures, but the drawing of the two “negatives” (2 and 4) may have provided the idea of having pendant figures in the panel. At any rate, the ideas for the poses of the soldiers are clear from the drawing, given that further development work did take place. What constituted further development is not clearly known in Ghiberti’s case, but it is safe to assume that this involved some sort of wax model, the drawing an aid in its preparation, and so the psychological build up to three-dimensional representation becomes evident. The ideas may have been worked up on paper, with no real need to define or convince in three dimensions and the wax model is produced to introduce the three-dimensional element.

This drawing has similarities with the Quercia study for the *Fonte Gaia*, in that close examination shows the artist working through ideas and attempting to find solutions (much as Quercia had done in trying to place the figures within the niches). For this reason, it is almost certainly a sketch by Ghiberti who

undertook it as part of his own developmental process in relation to the final commission.

Drawings Associated with the Work of Ghiberti

Any attempt to assimilate and analyse a drawing style prevalent at this time in the work of sculptors must of necessity consider any relevant drawings being produced from the period. Two drawings, both in the British Museum and both with *recto* and *verso* representations, should be considered as in this category, first *Studies for Six Walking Figures (recto: 28)* and *Lower Part of a Seated Figure (verso: 29)* and secondly *Standing Evangelist (recto: 30)* and *Nude Woman Holding Two Torches (verso: 31)*.⁵⁸

The first of the two drawings has had several attributions, among them Bernard Berenson's attribution to Spinello Aretino, while citing trecento links, and an attribution to Giotto by Ottley, under whose name it appeared until the Woodburn sale.⁵⁹ Degenhart and Schmitt recognise a component which they term, "*etwas kühlen Ebenmaß*", a "kind of cool regularity", developing the idea that from the *Annunciation* on the North Door to the *Baptism of Christ* on the *Siena Baptistery Font*, a principle of figure order began to emerge. The allusion to the building up of a Florentine style of figure composition, laced with a light Sieneese element, is in keeping with what has been said on Ghiberti's

⁵⁸ *Studies for Six Walking Figures*: Berenson, 1938, No. 2756A (as Spinello Aretino); Popham and Pouncey, No. 271, 171 (as *Anonymous Florentine*, around 1400). In conversation with Popham and Pouncey, Sirén made a verbal attribution to Lorenzo Monaco which they favour; Degenhart and Schmitt, 1968, No. 193, 295 (as Circle of Ghiberti). *Standing Evangelist*: Robinson, 1876, No. 3 (tentative attribution to Ghiberti); Berenson, 1938, No. 176A (as School of Fra Angelico. He notes: "The touch is almost Parri's"); Popham and Pouncey, No. 272, 172 (as Tuscan, between late Gothic and early Renaissance); Degenhart and Schmitt, 1968, No. 194, 295.

⁵⁹ Christie's: 5 June 1860, Lot 433.

development as a sculptor and would logically point to such concerns being manifest within a drawing style. The only drawing open for comparison with this one is the sketch for the *Flagellation* in the Albertina Museum in Vienna.

Comparisons with the Albertina drawing are unavoidable given that such a drawing must be considered a spontaneous sketch. However, the drawing of the six women is somewhat more worked than the sketch for the *Flagellation* and lacks much of the spontaneity of the Albertina sketch. While the drawing has been executed with a reasonable sense of confidence and speed and some flair in sketching, these figures seem heavy and somewhat static, especially if the drawing is contrasted with the *Massacre of the Innocents* by Donatello (5). In contrast to the British Museum sheet, which is somewhat overworked, the artist of the *Massacre of the Innocents* has worked quickly and confidently with the pen, managing to capture, in a few strokes, the required tension and desperation of the characters, with little or no recourse to overdrawing. The comparison of the two drawings is highly reminiscent of the comparison of both artists' window designs for Florence Cathedral, in the approach, on the one hand, to freshness and spontaneity and on the other to the rather more formal ties to the Gothic.

The face of the figure second from the left in the group at the back of *Studies for Six Walking Figures* is reminiscent of the face of the Virgin on the *Assumption* window in Florence Cathedral and there are similarities in her hands with the hands of the figure of Saint Stephen in the Louvre presentation drawing. There are clear stylistic links with the Siennese, and particularly with

the work of Parri Spinelli, in terms of the handling of the pen, the elegance of the curvilinear drapery, and the rhythm of the figures. There is less cross-hatching than might be expected of this artist and there seems little attempt to build up three-dimensional form, so often a facet of Spinelli's work. There is, however, a clear desire to have the figures seen in relief, working from the substantial figures in the foreground to middle ground figures and back to the two right-hand figures, who are extremely shallow against the background. Such features may indicate that such a drawing was prepared for a relief.

A closer look at Ghiberti's *Annunciation* on the North Door and the *Baptism of Christ* on the *Siena Baptistery Font* indeed does bear out the claim that Ghiberti possesses a "cool regularity" in terms of the rhythm of the flow from the front of the picture plane to the back of the composition.⁶⁰ The gradation from the almost three-dimensional female figures on the left, to the figures of the distant angels at the rear of the choir, is carried out with controlled and assured mastery, as is the sweep of drapery from both sides which leads the viewer up to the focal point of the composition, the christening chalice held by John the Baptist. Such fluidity is not evident in the British Museum drawing, but what is evident is that the artist wants the two figures in front of the picture plane to be read as possessing a three-dimensional roundness, the hatching picking out the heavy folds of drapery and providing the figures with much needed weight. The figures in the middle-ground lack conviction, the middle left figure almost a figure in fully half-relief, with the figure third from the left standing beyond. The two figures to the right are hardly worked at all and are

⁶⁰ *Annunciation*: Goldscheider, 1949, Pl. 6; Krautheimer, 1970, Pl. 25. *Baptism of Christ*:

barely finished, but are clearly to be read as further back in the distance. While the confidence and rhythm is lacking in comparison to a finished piece like the *Siena Baptistery Font*, a “principle of figure order” is beginning to emerge. The drawing has long been considered as being Circle of Ghiberti, but taking into account cumulative evidence, could be by the master himself.

The *verso* of the British Museum sheet is more spontaneous than the *recto*, in keeping with the Albertina drawing, in terms of being in the category of a sketch, drawn to work on an idea, but with no real desire to create in three dimensions. It is most probably by the same author as the drawing *Studies for Six Walking Figures*. Links with Parri Spinelli are close, particularly with drawings such as the *Baptismal Scene (19)*.⁶¹ This drawing is very much more free and fluid in comparison with such drawings, where Spinelli shows more meticulous control, the hatching over-used and almost defying its purpose, leading to the conclusion that the British Museum sheet has been drawn by an artist looking forward to a new, freer style.

The use of antique source material comes into play in the second of the two British Museum drawings within the group of those generally attributed to Ghiberti's Circle, *Standing Evangelist (recto)* and *Nude Woman Holding Two Torches (verso)*. The drawing was recognised as standing between late Gothic and early Renaissance by Sir James Charles Robinson, who tentatively ascribed it to Ghiberti. Berenson lists the drawing as “follower (in the widest sense of the word) of Fra Angelico”, dating it at around 1440-50, which would certainly

Goldscheider, 1949, Pl. 107; Krautheimer, 1970, Pl. 73, 149-150.

be in keeping with the contention that it resides within the Circle of Ghiberti. The figure of the evangelist resembles God the Father in Uccello's lunette of the *Creation of Adam* in the Chiostro Verde, in terms of the physique of the figure and the stiffness in its movement. The halo of this figure is rather too big, much the same as the figure on the British Museum sheet, but it is more likely that this is a drawing of a piece of sculpture within a workshop, as the figure of the Evangelist clearly stands on a plinth, still supported by wooden beams in readiness for movement to its final location. This is apparently the work of an assistant and carried out as a study piece. There is little understanding of human anatomy, particularly in the head of the saint which turns round extraordinarily, able to move 180° in the process. Unlike the sculptor who manipulates the stroke, the artist here uses highlights to light the points of the drapery nearest the surface as he himself looks at it, building up a sense of plasticity. Further study of the bone structure and musculature of the figure shows a weakness in the knowledge of anatomy, the drapery almost free-standing, not seeming to be supported by a convincing human figure beneath. This study is likely to have been for drapery purposes and so would aid a study of three-dimensional form. The drawing may belong with the Circle of Ghiberti, in terms of time, but it is not a drawing which could be classed as being sculptural in intent.

While of thoroughly different subject matter, the *verso* of the drawing shows an artist similarly interested in describing the roundness of the figure in terms of shading and heightening. A strangely proportioned figure, there is an attempt to

⁶¹ Ames-Lewis, 1981, Pl. 114, 128; Bellosi, No. 37, Fig. 55.

show the contours of the body, and the foreshortened right arm is partly successful. The female figure is clearly copied from an antique source, a source which has been identified as being from the base of a candelabrum from the Grimani Collection, now housed in Venice's Archaeological Museum.⁶² This figure, a study of the nude, is not the drawing of a sculptor working from within to create three-dimensionality, but rather the study of (in this case) a piece of relief work, where the elements of three-dimensionality are imposed on the figure from without by way of heightening and shading, giving the impression that this was drawn by a painter and not a sculptor.

A clear knowledge of a drawing style used by sculptors' in Florence at this time is a missing link in terms of creating a smooth stream of logical development in sculptors' drawing techniques within the quattrocento. A drawing exists which must be considered a two-dimensional sketch and a second, *Study for Saint Stephen*, gives few clues as to execution by a sculptor. The drawings are not helpful in establishing the probable characteristics of Ghiberti's graphic style. In this context, the *Studies for Six Walking Figures* provides a useful key. Bronze work on the *Gates of Paradise* was complete by 1436. The panels of these doors are far removed from the work of the early twenties. In the panel *The Story of Jacob and Esau* on the East Door, a revolution had taken place in terms of the creation of a regressive space within which the action takes place, the influence of Alberti beginning to appear.⁶³ From the front of the plane to the very back of the distant action, the space recedes with fluid rhythm through a series of layers to build up a scene of

⁶² Degenhart and Schmitt, 1968, 295.

monumental mastery. The characters have balance and three-dimensional form, as Ghiberti builds his *istoria*, moving from a point on the very surface of the picture plane, through the convincing human form of Isaac and on to scenes and conversations beyond. The build up of the design in these panels (cast as a whole) is altogether different, and as such must have called for compositional drawings to support these ideas, either as sketches or as working drawings. In addition, there may well have been studies of individual figures. Obvious developments had taken place between the work on the two sets of doors and Ghiberti did go further in his rendition of pictorial relief in the late reliefs for the North Door. He was altogether familiar with the shallow relief of his contemporaries and used it in much the same way. One notable work illustrates his treatment of shallow relief, the *Tomb of Leonardo Dati* in Santa Maria Novella (*figure sixteen*).⁶⁴

While the idea of a flat tomb is a trecento idea, here, a shallow figure illustrates qualities of three-dimensionality which are created in a subtle balance of slightly raised and completely flat planes. The figure's head and hands are raised, as is the left foot which moves forward from the front plane. It recedes in planes which flatten off and are quite simplified, the tassels of the pillow and the cloak at its thinnest (in terms of relief depth) are set against a very plain, flat background. Because of the background, the figure seems to be floating towards the viewer. The Siena Font's *Baptism of Christ* is another part of this development in 1424. Here, the groups of figures are integrated within a deep space, but the space is created by the figures and still supported by and fully

⁶³ Goldscheider, 1949, Pl. 57, and details Pls. 158 and 159; Krautheimer, 1970, Pl. 94, and

dependent on the regressive nature of the composition, the figure of Leonardo Dati is supported by the merest hint of depth.

The study of the material associated with sculptors of this period has had a disappointing conclusion. The *Study for Saint Stephen*, shows a desire to create a free-standing figure, but the depiction of three-dimensionality, as in a defined stroke pattern, is not apparent, weakening a claim for inclusion under the category, “sculptor’s drawing”. The sketch, *Five Studies for a Flagellation of Christ*, is an example of a drawing undertaken to quickly sketch an idea and not for a finished piece of sculpture. While it is possible to contrive a notion of what the prevalent drawing style might have been like, there is too little material to construct a convincing representation. The problem is inherent in the first decades of the quattrocento due to a dearth of drawings. Problems are accentuated because this scarcity may point to the fact that Ghiberti did not produce drawings in any volume and did not consider drawings of great importance to his creative process. The answer as to how this style of drawing developed may lie within the drawings considered as being of his Circle, for example, a comparison between how a drawing for the *Tomb of Leonardo Dati* might have been constructed and the British Museum drawing, *Studies for Six Walking Figures*

Ghiberti’s contribution to art is well-evidenced in the works he left behind, but he also stands on the threshold of new developments in art in the quattrocento. Working alongside Donatello and seeing the developments in the work of the

details Pls. 95 and 96 (a).

younger artist, history did not allow him to rest on his laurels, he had to move on to a new plane, particularly in the area of pictorial relief. In many ways Ghiberti used the work on the panels of the doors to experiment with composition within a restricted area, the quatrefoils of the first door giving way to the square panels of the second and so to some element of freedom in terms of space. Given that no drawings remain, the work left to us must be used to map out what that graphic development might have been. Such development is seen in others during the late 1420s, development which led not only to a new pictorial relief but also a new drawing style, ultimately epitomised in the *Massacre of the Innocents*.

⁶⁴ Goldscheider, 1949, 124; Krautheimer, 1970, Pl. 75, 147-148.

THE GENESIS OF RELIEF STYLE

The discussion thus far has established a number of developmental links back as far as the early fourteenth century, charting the development of drawing from early manuscripts, to the early use of hatching and on to the influence such early masters may have had on those sculptors working early in the quattrocento. The existence of Jacopo della Quercia's design for the *Fonte Gaia* provided a rare example for a more in-depth study, the drawing illustrating a number of techniques for rendition in three dimensions, while the study of the two drawings generally associated with the hand of Lorenzo Ghiberti proved less enlightening in establishing any specific traits in relation to the conception of a "sculptor's drawing". Discussion now turns to the work of Donatello with a view to establishing consistency of technique in a number of drawings related to work in relief.

Like Ghiberti, Donatello is reported to have produced a large number of drawings:

His draughtsmanship was strong and he made his designs so skilfully and boldly that they have no equal. This can be seen in my book of drawings, where I have both nude and draped figures drawn by his hand, various animals which astound anyone who sees them, and other beautiful things of the same kind.¹

H.W. Janson, on the other hand, writing in 1963, believed that Donatello drew very little.² Janson presumed that Donatello must have been asked to produce

¹ Vasari, trans. Bull, 188.

² Janson, 217. In *De Sculptura*, Pomponius Gauricus relates an anecdote about Donatello in which he claims that Donatello told his students that the art of sculpture could be reduced

formal drawings for major projects such as the Padua High Altar, such drawings he accepts, not designed to be spontaneous and creative, but as a record of information. On the subject of spontaneous sketches, Janson is more reticent, considering that Vasari and Vincenzo Borghini, who claimed to own drawings by Donatello, must have been mistaken in their attribution.³ It is indeed difficult to conceive of there having been a wealth of graphic material when so little remains, and doubts must be expressed as to how accurate the early accounts are. Donatello may have used drawings very much as sketches, as a way to develop or record ideas, moving ahead of these sketches very quickly in terms of his developmental process.

As in previously discussed cases, there are no autograph drawings assigned to Donatello's hand and, until 1968 and the work of Degenhart and Schmitt, no strong case had been made to link the master to any particular drawing. The proposal of Degenhart and Schmitt's *Corpus der italienischen Zeichnungen* was the attribution of a drawing to Donatello, the *Massacre of the Innocents* (5). The wealth of supporting material they produced cannot be underestimated for the present discussion, for, along with claims for particular attributions, Degenhart and Schmitt alluded to there being drawings specifically linked to sculptors as opposed to drawings unequivocally linked to painters. The question of attribution is important to the present discussion, and certain facts

to one word - drawing. Gauricus, trans. Chastel and Klein, 72-73. Janson considers it to be "paradigmatic", while Chastel and Klein also believe it to be anecdotal, footnote 110, 73. In support of this they offer the excuse that "Donatello n'était pas dessinateur".

³ Vasari and Borghini assembled an anthological collection of drawings, described as a "book of drawings by the most famous painters". See Vasari (Life of Fra Filippo Lippi), trans. Bull, 223; Kurz, passim. For extended discussion on Borghini and his relationship with Vasari, see Rubin, particularly, Chapter IV, *Vasari and the Writers of History*. For information on Borghini as a collector, see Rubin, 194 and 327.

linked to the attribution of the *Massacre of the Innocents* need to be discussed in order to clarify the reasons for associating such a drawing with Donatello, in the face of a lack of any autograph material. The qualities prevalent in this drawing, if it is accepted as a work of the fifteenth century, and of Donatello, will undeniably establish significant clues as to his probable style and of his conception of form.

The *Massacre of the Innocents* (with its *recto*: *David Triumphant*: 32), a drawing currently in Rennes, has been in the Robien collection since 1741.⁴ It had once belonged to Vasari who had it mounted for his *Libro de' disegni*. A number of annotations somewhat confuse the subject of attribution. On the *recto*, to the top left-hand side, is the word, in lower case, *buonamico*, seemingly in Vasari's hand.⁵ Along the bottom of the border of the *recto* are two lines:

*Buonamico Buffalmacco fiorentino, citato dal Boccaccio, jinparo il disegno da Andrea Tassi visse nel 1340. (line 1)*⁶

Le nom de Donatello ce trouve au revers de ce dessein, ce qui feroit juger qu'il seroit de luy. (line 2)

To the bottom right of the drawing itself is the inscription *N° I*, probably a collection mark by Robien. The *verso*, *David Triumphant*, is similarly annotated. The name *donatello* appears to the bottom right in similar

⁴ Degenhart and Schmitt, 1968, 344-365 (as Donatello); Dussler, 491-493; Clark, 1970, 262-263 (as Donatello); Paris, Musée du Louvre, 1972, No. 1, 21 (as Donatello); Raggi Collobi, 21, 31, 53-54 (as Donatello); Eisler, 1982, No. 2 (as Donatello); Phipps-Darr, No. 34, 141-142 (as Donatello); Elam, 191-192 (not by Donatello); Poeschke, 20-30 (not by Donatello, no alternative artist given); Rennes, Musée des Beaux-Arts, 1990, No. 2, 14-16 (as Donatello); Beck, 1991, 69 (as not by Donatello).

⁵ Degenhart and Schmitt, 1968, 343-344. The inscription to *buonamico*, may have occurred through Vasari's attribution to Buffalmacco of a painting of a *Massacre of the Innocents* at the beginning of the fourteenth century.

⁶ Buonamico Buffalmacco has never been seriously considered as the author of the drawing. The drawing may have reminded Vasari of a painting of the *Massacre of the Innocents*,

handwriting to the *buonamico* of the *recto*. Perpendicular to the left leg of the figure of David is the inscription, in Latin numerical notation, CC - XXVIII^o.⁷

The drawing has been cropped to the right-hand side of the *recto* and consequently to the left-hand side of the *verso*. While another scene (or figures) may or may not have appeared to the figure of David's right, there was most certainly a continuation of the action on the *recto*, where the figure nearest the right-hand side has been cropped. This most probably occurred through damage and the ensuing need to crop the drawing for the purposes of mounting. It is impossible to say how much of the action of the *recto* is lost, but, if the composition was originally balanced in terms of its composition, then there might have been at least two to three inches more to the right-hand side.

The attribution to Donatello was first made in 1968 and is now widely accepted by scholars. Degenhart and Schmitt worked, more or less exclusively, from the existing sculptural work. The stylistic link made in terms of the *Massacre of the Innocents* is with Donatello's relief work in Padua and the pulpits in San Lorenzo, where the same desire to imbue a scene with tension and drama, by creating a mass of figures, pushed forward towards the front of the picture plane, is prevalent:

In comparison, the relationship of the drawing to Donatello's relief style at Padua is so close, that even the idea for the composition can be traced back to it. The formal construction of a drawing such as this is his too, one which interacts with the ingenious novelty of his relief style and emanates

by Buffalmacco, which is now lost.

⁷ Degenhart and Schmitt, 1968, 344-345. They contend that the handwriting, as the paper, is from the quattrocento, and that it is by the same hand as that of the drawing itself. See also, Eisler, 1981, No. 2.

from the same innovative creativity . . . Donatello's drawing style can perhaps best be studied in the stone relief of the Entombment of Christ.⁸

A comparison of the *Massacre of the Innocents* with a portion of relief work in Padua brings interesting results, not just in terms of attribution, but also in coming to terms with what was probably the developing style of drawing for relief sculpture. The relief for the *Miracle of the Ass* (*figure seventeen*) shows a more developed composition than the *Massacre of the Innocents* drawing, in terms of there being a defined architectural structure within which the action takes place. Whether a more detailed drawing, a step on from the *Massacre of the Innocents*, denoting architecture and other details in such a way, would have found its way into Donatello's developmental process, is unknown, but, given such intricate detail, in addition to the perspectival components, it would seem likely.

The handling of the groups of characters is similar, with a comparable intermeshing of the action to heighten the drama. There is straightforward layering of the action to the left of the bronze panel. The standing figure to the extreme left leads the viewer into the scene, with the figure of the old man further back from it, and the character behind the figure of the child's mother the most distant of this group. The standing figure, second from the left, seems to be at the very front of the picture plane, until the child's leg is seen to upstage it. Within the drawing there are also two distinct groups, that to the front, with the three adult figures (two kneel and one stands) and the tumult of figures behind, where most movement is concentrated. The two sides of the

⁸ Degenhart and Schmitt, 1968, 357.

composition are therefore divided by the group of three who speak together, and the other which struggles against the figures of the oppressors.

Both scenes use a number of poses to vary movement and to hold the viewer's interest, in a style which points to an artist of a degree of sensitivity who is emotionally involved in the telling of a story. While the left-hand portion of the panel, the *Miracle of the Ass* can be viewed as a single scene, within it there are cameo areas for particular attention. The mother who attempts to control the child determined to go off in another direction, provides a scene within the main tableau. Similarly, the face of the man behind the figure of the old man with a crutch, who leaves off his desire to move forward with the crowd, stops to wonder at what the child is doing, encouraging the viewer to pay particular attention to his part in the action. In the same way, the figure with its back to the viewer to the right of the composition turns to push away the figure of the man coming behind, only to have another try to climb over him. In the drawing, the two figures to the bottom of the composition seem to be in conversation, trying to avoid the carnage above, while there is an individual cameo of the mother who stands clutching the baby in desperation behind them. The figure to the right raises its arm in an attempt to push away the arm of the figure of the oppressor coming from the right, while below them, a figure has been squeezed into the available space. This will become a familiar technique in the building of Donatello's figure composition.

Just as this comparison highlights the differences between media, these figure types do show parallels with one another, in terms of character and execution. Figure types in the drawing can be found in the relief. The babies in both

drawing and sculpture are of the same figure type. Both are rotund, exude a great deal of movement and are of a fairly substantial weight. The hand of the baby, held by the figure of the woman to the viewer's left in the drawing, has been depicted using only an indication of the palm of the hand and two ovals to denote the fingers. Even within this very quickly sketched area, the artist has managed to give the impression of the fingers of the child pushing against the mother's arm, in an effort to wriggle free, the upper body seeming to rise at the same time. This action is underlined by the movement to the figure of the child's face. In the sculpture, the figure of the child, equally strong and substantially built, attempts to move away by turning its right leg downstage in an effort to move off to the left, its fingers (right hand) pull away from the figure of the mother, causing the upper body to seem to move to its right.

Within the mass of figures in the drawing is one which grasps upwards behind the two characters who sit to the front of the action. This figure appears to have been drawn in after the artist had set the two main characters, pointing to a desire to create a main framework in terms of composition and of receding depth. This character is little more than a face, head-dress and arm, perhaps a mother trying to help those above by pulling the child away from harm, but this is difficult to determine. A similar character is to be found, however, in the relief sculpture, that of the male figure to the right of the panel. Here, the figure has begun its action in an upright position, has been pushed over by the weight of bodies coming behind, and now tumbles over the step. In an effort to regain balance, the figure, leaning on the right arm, raises its left to regain position and to deter those moving forward from behind. Here the poses are similar.

There is also similarity in this figure group and the drawing, in the way in which the bodies overlap one another. Because of the very sketchy nature of the drawing, it is difficult to determine at which level of depth each character is conceived but this is part of the communication process with the viewer, who is not intended to have any clearly determined scheme to follow, but is expected to be affected by the closeknit construction of the action, which, in its turn, builds tension and excitement. Such parallels help support the case for the attribution to Donatello, but a more important consideration for the present discussion is the ability to draw parallels in execution which might in turn point to criteria against which future work could be considered.

The drawing shows a strength in the outline of characters and of the comparative severity of those lines, in terms of aligning such outlines to those which would appear on a final relief. There is little in the way of shading and no real application of hatching, except in isolated areas of the composition, where it has a specific purpose. The drawing discussed in the previous chapter in relation to Ghiberti, *Studies for Six Walking Figures* (28), showed what might be considered a very clearly laid out scheme for execution in relief, a “cool regularity” in figure composition, where each figure is placed behind the other in a regular and somewhat predictable sequence. The figures to the front of the picture plane are well built up in terms of hatching, while the others become less detailed, the progress to the rear of the picture plane achieved by having the figures appear more and more in profile and so seeming to be more distant. This is not at all the technique in *Massacre of the Innocents*, a situation which recalls the comparison between the rather flat *Assumption* window by

Ghiberti in Florence Cathedral (*figure ten*) and the *Coronation* window designed by Donatello (*figure eleven*), which reflected a fresher approach and a new, confident way of thinking. The figure composition of the *Massacre of the Innocents* is not built up as a flat, receding construction, the action is somehow pushed forward, giving the impression of undulating surface contours. This is achieved with very heavy and very distinct outlines, and the action seeming, at first sight, to be happening on one level. By way of clever placement of the figures, the action takes on depth without detracting from the power of the composition, the drama pushed forward towards the viewer. The placement of the figures can still be determined, by “dissecting” and pulling apart the composition, but this becomes a secondary, academic pursuit, the viewer already having taken the full impact of what the artist intended. The desire to grasp the viewer’s imagination is further developed in the sculpture itself. There is no desire to create a regular recession of figures into the background, but, again, to push the action to the front of the picture plane, while keeping spatial depth through the architectural framework and the figures to the back, very much in shallow relief, but not part of the main action.

The tumult of figures to the right of the *Miracle of the Ass* could be conceived as a drawing, given a growing visual awareness of similarities within the mind of the viewer, particularly if the group from the drawing and that from the sculpture are studied side by side. As the background group of figures in the *Massacre of the Innocents*, the group of male figures in the *Miracle of the Ass*, struggles to gain superiority and some sense of balance, the action pushed forward in the same type of compositional framework. The framework in the

Massacre of the Innocents is made up of five main characters, the two who kneel to the front, the figure of the mother to the extreme left of the composition bending over its baby, and the figure who stands to the figure's left, with the arm raised to defend the child. The fifth character is no more than an outline which appears to the very edge of the right-hand side of the drawing. The back of the cloak is seen, with possibly the head of the figure of the baby visible over its right shoulder. These figures seem to have been drawn first. The male figure with arm raised to strike (only the top half of the torso is drawn in) has then been added, with the figure of the mother and child in the middle drawn over this figure (the male figure's outline can be seen through the head of the figure with the baby), somewhat squashed into the available space. In what was possibly an afterthought, the figure with its back to the viewer, raising a hand up from the bottom of the scene, has been drawn in the small space that remained. The outline of the arm impinges on the face of the kneeling figure to the left and the long pen strokes seem to be an attempt to create some depth between the head of the figure and the kneeling figure to the right.

In the sculpture, the anchor figures, in this context, are that of the standing figure, second from the right and the figure of the man leaning over the figure who has just stumbled. Between these two figures, is the important figure of the character who falls between them, but who, at the same time, raises an arm to change the shape and movement of the composition. The placing of the hand of the bearded figure on the shoulder of the prostrate figure, its hand leaning on the step, along with the hand of the figure who has fallen, creates a series of

triangles which strengthens the construction of figures and forms the basis of the framework. With only these three figures, the action is exciting enough, but the addition of the figures below the figures of these three men, figures placed into the available space, allows the full extent of the drama to unfold. There is another figure below this group, the foot visible behind the foot of the falling figure. There may also be another figure below this one, but this is very difficult to determine, particularly as an arm seems to appear from a figure which is obviously incomplete, but there to create a greater *mêlée* of figures, much as the head and grasping hand of the figure in the drawing.

In terms of illustrating characteristics of sculptors' techniques in drawing, the drawing is very subtle. While this is an initial idea, a drawing which, as far as can be ascertained, was not developed into a full-scale work, the sense of confidence in the artist cannot be ignored, for the drawing is a piece of work by an artist who is assured in the rendition of outlines and the establishment of surface contours.⁹ Even given that this is an unfinished drawing or perhaps simply a sketch to play out an idea, there are indications within the drawing that the artist is giving thought, throughout his drawing process, to the end product. The doubling of lines on the drawing accentuates the most important lines in the sculpture, the darkest lines denoting the areas of deepest shadow or cut. These accentuated contours pick out the lines of the primary framework around which the action and tension is built. Thus, the outline of the left-hand kneeling figure and that of its neighbour are picked out in a much heavier stroke than the details of the drapery. The upper torso of the primary standing

⁹ While no completed sculpture exists, it is possible that the drawings were produced for the

character is more boldly outlined, because this upper torso will be in deeper relief than, and further forward of, the rest of the body, thus accentuating the drama. Similarly, although seeming to be behind the action to the right of the sheet, the character beneath the arm of the second principal, standing figure, is picked out in a very deep line, pointing to an eventual transformation to a figure in deepest relief and prominent in terms of its proximity to the surface.

Other aspects point to a sculptor at work. The standing figure, second from the left, who raises its hand, has two indications of the sculptor's technique. In the bend of the arm there is a deep stroke to denote an area of shade, where the arm bends up, but near to this spot, what appears to be a small "p" has been drawn to show an indentation in the arm as it pushes away the oppressor coming from the right. There is also an area of parallel hatching under the figure's arm, showing the arm in shadow, or a sculptor's cut. The completed version of these details is also seen in the *Miracle of the Ass*, on the arm of the figure falling to the right and on that of the standing figure second from the left, where the tension of the muscles are accentuated. The raised arm of the figure furthest to the right, would have appeared in a drawing for a painting as having the area of the under arm picked out in hatching to denote its appearance in shade. On a figure with little other detail, these two techniques define a sculptor's thinking. There is a similar mark to the leg of the left-hand figure kneeling to the left, where the indentation of the bent leg is defined with the shape of an "e". Again, this is a heavy stroke to define the weight of the cut and the depth of the

unfinished project for the bronze doors of Siena Cathedral. Phipps-Darr, 142; Rennes, Musée des Beaux-Arts Rennes, 1990, 16.

indentation. The three deep ink lines to the left of the leg are similarly used to show the space and depth between the leg and the fall of the inner drapery.

In many ways the *Massacre of the Innocents* is a snapshot of a work in progress. The sheet has been cut and so is incomplete, but the composition of characters is the only area on which the artist has worked. They are not set in any architectural setting or identifiable landscape. The tabernacle behind the figures may or may not be related to the scene.¹⁰ It is very faint and seems to be more a part of the under-drawing, visible behind the figures. The outline of the portico continues down to the waists of the two standing characters, the right wall coming through the headgear of the figure second from the left. The detailing on the pediment has been started but is unfinished. Inside the tabernacle is a figure usually considered to be an angel, mainly because of the indication of wings.¹¹ Alongside the tabernacle, under the main figures, is an indication of foliage or perhaps a bird about to take flight, although whether this ever related to the massacre or to another drawing, beneath the *Massacre of the Innocents*, is open to question.¹² The tabernacle is of a form usually associated with the early Renaissance, and the paper is (in terms of colour and texture) of a type and construction common to many drawings of the time.

¹⁰ Herod is usually shown watching the massacre from a balcony. The tabernacle may link to this idea or may be a convention used to place the action in the courtyard of Herod's palace.

¹¹ In the Bible, the Holy Family is forewarned by an angel and escape before the massacre (*Flight into Egypt*). The figure here may well represent this angel.

¹² Another drawing exists in the Collection of the Duke of Devonshire at Chatsworth. This shows the tabernacle and the foliage in an almost identical form to the underdrawing. The sketch of the angel illustrates a schematic approach in rendering figures. Degenhart and Schmitt, 1968, No. 459a, 344.

The technique used in the *Massacre of the Innocents* alludes to that of an artist of great confidence, but also one of great economy. While the sheet shows a compositional scene, the artist has also managed to create cameo characters, featured as part of the action, but able to be used as individual characters in other contexts within the same scene, or as part of the action for a completely different piece of work. There is no allusion to the interest of an artist like Ghiberti in the very intricate work of the goldsmith, or in Michelangelo or Raphael's interest in creating highly finished drawing works of great beauty in their own right. This facet to Donatello's working nature is of importance in establishing his working method. Suggestions as to what that working method might have been must be based, in the first instance, on whether he did draw a great deal and what level of finish and detail was illustrated in such drawings. While the *Massacre of the Innocents* sheet is the only universally accepted drawing by Donatello, in terms of the links that can be made to a wide range of late relief work, other facets of the drawing must also be considered. The drawing is one of great rhythmic flair, drawn by an artist who is very confident in the rendition of relief scenes, it is also very economical and somewhat businesslike. Accepting that this drawing was the basis of a planned design, there must have been very many steps in the process to bring it to the level of relief work synonymous with a master of Donatello's reputation. There must therefore have been other drawings or models which were employed before the work began on a final piece of sculptural work.

A terracotta cast of a flagellation and a crucifixion exist from this time, on which traces of wax have been found.¹³ The relief (terracotta laid on a backing of lead) is considerably damaged.¹⁴ To the right of the predella is a coat of arms, suggesting that this had been an unfinished private commission.¹⁵ The panel shows the concern of the artist to work the design up to a highly finished state, while certain areas are only faintly sketched in, the main architectural construction and the all important action to the front of the picture plane is well established. The move to work on wax may have been the next step in Donatello's working method, for he may have been more at home working in three dimensions rather than in two. Donatello now provides links back to the experiments by Amorim, Loomis and Fukusima, where individuals were able to reproduce configurations more accurately without the visual source being available.¹⁶ In the Rennes drawing, Donatello may be working on an idea (just as Ghiberti's *Five Studies for a Flagellation of Christ* sketch in the Albertina Museum in Vienna: 3) with the confidence to then go to wax and begin to work in three dimensions much more quickly than others might have had the confidence to do. Donatello may have produced a great many drawings, but they were most probably sketches and quickly discarded. This may, in some

¹³ Victoria and Albert Museum, Upper Relief: 456 × 578 mm; Predella: 114 × 572 mm. Pope-Hennessy, 1964, No. 71, Figs. 95, 96 (detail), 86-90. In 1862 Robinson catalogued it as a sketch model by Donatello, altering an earlier attribution to Cellini by Migliarini. "This exquisite sketch was in all probability a project for some work in bronze of the later period of the master, as it strongly resembles in general style, and also in specific details, the reliefs of the bronze pulpit of San Lorenzo". Robinson, 1862, 17. Janson rejects the attribution, "At the same time, however, the relationship between figures and architecture in the London panel strikes me as fundamentally different from anything in Donatello's *oeuvre*, and the attribution to him ought to be rejected on this ground alone. There are, I believe, other objections equally serious", Janson, 244-246. A late dating has been accepted as around 1453-1466, after Donatello's return to Florence from Padua. See Kauffmann, 1935, No. 640, 254.

¹⁴ See Pope-Hennessy, 1964, 87, for an extended report on the panel's present condition.

¹⁵ Bode, 33, accepted Robinson's contention that the frame was the original mounting, but argued that the relief had been ordered by the Forzori family for the Duomo, given the presence of the Lamb of the Arte della Lana and the Lily of Florence on the base.

arbitrary way, provide a reason as to why Vasari has a sketch in his collection, perhaps even by that time just a fragment, and not a highly polished presentation piece.

The *verso* of the sheet in Rennes, *David Triumphant*, has inevitably been linked with figures in the round. The understanding that the figure was drawn in preparation for a three-dimensional statue might necessarily draw expectations of a different style of drawing to the *recto*, most certainly produced for work in relief. However, this is difficult to determine, drawing the conclusion that the drawing was not intended for a figure in the round, or that Donatello drew consistently while thinking in terms of relief.

The figure, identified as David, stands on what is understood to be the head of Goliath, although this has merely been indicated below the figure's right foot. The figure in the drawing is rather aloof and somewhat self satisfied, depicted as a very proud and somewhat arrogant character. Beside the figure is a second drawing which shows the head in profile, but with much longer hair, the head-dress down to the back of the head is merely indicated, as is the mouth, nose and eye, giving the impression that the artist was interested in working out some problem with the arrangement of the hair, the angle of the head unrelated to the completed figure.

The drawing is very much a working sketch. The doubling of the outline of the main figure shows the artist's attempts to settle on a pose for the sculpture.

¹⁶ See Chapter One, *Introduction*.

Here, Donatello toys with the effects of *contrapposto*, hence the need to alter the outline of the figure, the line not as clean or as spontaneous as that of the *Massacre of the Innocents*. This tends to distance the two drawings, making *David Triumphant* seem more ponderous. The whole body has been defined by a double outline as the artist experiments with the line of the upper torso and its effect on the overall stance of the figure. The left hand has been altered substantially, as has the position of the right foot. This appears to be in line with the artist's experiment with the idea of the ultimate pose of the figure during the drawing process, the upper torso turning towards the viewer to reveal a heroic and proud stance. The cloak is used to balance the form of the figure in the drawing and was perhaps also intended to balance the physical stance of the finished statue.

The drawing is different from the *Massacre of the Innocents* in terms of intent. While Donatello shows confidence in the rendition of line on the *recto* of the sheet, the drawing of David is more laborious with the outline of the figure worked over and lacking the spontaneity of the *recto*. However, in a similar manner to the *Massacre of the Innocents*, the artist's control and understanding of the surface contour is evident, the very slightest indications of the lines of the chest and to the navel, lifting the torso towards the front of the picture plane. There are similar lines above the left knee, where the tension of the weight of the torso onto the left leg is indicated.

The line of the shoulders forms the basis of the outline with the weight transferred onto the figure's left side. This is accentuated by the fall of the left

arm which has been allowed to drop to above the knee. The left hand has been altered to form balance within the whole outline. The right arm, bent at the hip, provides a balancing mechanism and further pushes the weight onto the left-hand side of the body while the cloak accentuates and strengthens this line. The deeper, rounded strokes on the hair establish the height and weight of the hair in relation to the final work, rounding the area in relief, much as the deep indentations to the knee of the figure to the front of the *Massacre of the Innocents*. These strokes are similar to those used by Jacopo della Quercia, to cut back into the surface and so create depth. Here, the stroke is used in reverse, to create roundness in relief, one stroke concave, the other convex.

The drawing comes close to Michelangelo's design for the "lost David" currently in the Louvre (81), in terms of its pose and the desire to illustrate *contrapposto*.¹⁷ Both figures look to their right in profile and have right feet raised on top of the head of Goliath. Although the Donatello sheet has more detail to the hair, the Michelangelo drawing shows the beginnings of a similar idea to the head-dress. The Rennes sheet has the right hand resting on the hip with the left hand posed down the side of the left leg, while the Michelangelo study has the right arm posed over the right leg and the left arm bent and resting on the left hip. Both statues have a self-satisfied air with the chests pushed out proudly in the moment of victory, but only the Donatello figure has a cloak.

¹⁷ Berenson, 1938, No. 1585; Degenhart and Schmitt, No. 480, 355; De Tolnay, 1975-1980, 19r; Hibbard, Fig. 23, 52-53; Hirst, 1988, Pl. 1, 3, 60. In 1494 the French General, Pierre de Rohan had occupied the Medici Palace and had admired Donatello's statue of David, then in the courtyard. He asked Michelangelo to produce a statue on 12 August, 1502. The statue is now lost, but this drawing is thought to be a study for it. There is also a perceived relationship with a bronze statuette now also in the Louvre, Hibbard, 52-53.

The handling of the two figures is dissimilar in that the Donatello sheet has little in the way of hatching, apart from the broad stroke which separates the cloak from the back of the body. The Michelangelo study uses the hatching, again in very broad strokes, to lead the eye around the limbs, in a hooked stroke reminiscent of Jacopo della Quercia, but the heavy concentration of this stroke tends to flatten the figure against the background, the figure seeming to be almost in relief. However, it is known that Michelangelo was creating a free-standing statue and so this study must be for a secondary view of the statue. Johannes Wilde believed that a similar Michelangelo drawing *Study for an Apostle* was drawn in relief as it was conceived, as a statue destined for a niche in the Cathedral (33).¹⁸ This implies that the Rennes sheet, *David Triumphant*, might well have been designed for a niche or may also represent a secondary view of the statue. In any case, the drawing does not provide a convincing example of a drawing produced by Donatello when working in the round. As the drawing is in profile it would seem that Donatello used the same basic drawing method for this study, and as such the style is similar in intent to the *Massacre of the Innocents*.

Links with Donatello's Sculptural Techniques

The psychological approach to drawing is an important consideration in this

¹⁸ Frey, No. 13a and 13b; Thode, 346; Berenson, 1938, No. 1521; Wilde, 1953, No. 3r, 6; De Tolnay, 1975-1980, 36r; Hirst, 1988, 3. Wilde points to similarities between this drawing and a sheet in the Uffizi, also for a *Standing Apostle* (Uffizi 233 Fr.; Hirst, 1988, Pl. 2), suggesting that there is a link with Michelangelo's commission for twelve statues of the apostles for Florence Cathedral, a contract signed on 24 April, 1503. Berenson felt the sketches were preliminary ideas for the figure of Saint Matthew, although both Frey and Thode disagree, considering that Michelangelo would have made several sketches before taking the commission forward.

thesis and drawing technique has been seen to link to the training and interests of the artists. This was no more so evident than in the work of Jacopo della Quercia, where his goldsmith's influences ruled his drawing technique, influences which were less prevalent in the completed sculptures. Much the same could be said of the drawing, *Study for Saint Stephen (2)*, where an artist drew rather more in the fashion of a goldsmith or miniaturist. In the case of Donatello, the relationship between pen and chisel is rather closer, particularly in the area of marble relief, for such works show Donatello's interest in getting to the final stages of execution as quickly as he could. The quality of Donatello's visualisation and memory need necessarily have been of the highest standard.

Donatello works on marble very much as on paper but this time the chisel(s) becomes the writing medium, enabling him to create light and shade very much as he might on paper. The predella beneath the figure of *Saint George Killing the Dragon*, of 1417 (*figure nineteen*), is the earliest example of Donatello's talent in graphic work.¹⁹ On the panel, the groove emphasises the difference between raised and low areas of relief. Here he draws on marble, in the earliest form of *rilievo schiacciato*, the earliest relief to set figures in an identifiable, perspectival setting:

A schiacciato panels "reads" more like a picture than like a conventional relief, because the sculptor's primary concern here is not with plastic volume but with *valeurs* of light and shade. The tonal values, achieved through minute, precisely controlled gradations of the surface, make it possible to render distances in terms of atmospheric perspective and thus extend the illusion of depth to the farthest horizons. . . . it should be obvious that the method itself is based on technical and aesthetic experience of a uniquely sculptural sort: only a marble carver supremely sensitive to the impact of his

¹⁹ Bode, 15; Avery, 1970, Pl. 28, 47; Janson, Pls. 10c, 11c, and 23-32.

tools upon his material could have discovered how to exploit the incidence of light on sculptured form in such a way as to make it the counterpoint of chiaroscuro in painting.²⁰

The marble panel, *Christ Giving the Keys to Saint Peter* (figure eighteen) further illustrates the technique which sees the deepest carving at no more than 5 mm.²¹ Donatello has clearly “drawn” on the marble, with some areas no more than one stroke of the point of the flat chisel. This is seen in the vista beyond the line of trees, where the buildings are denoted using thin lines and tiny, much deeper holes for windows and doors. The figure of Peter, who is in a reasonable depth of relief, has been more strongly modelled than other areas of the relief.²² Unlike earlier work where abrasives were used to smooth out any chisel marks and rough edges, Donatello uses the strokes of the chisel for effect, just as with the strokes of shading of a pen. This is in stylistic contrast to earlier relief work where the artists cut very much down on the marble, creating figures that appeared in three dimensions against a flat background. Here the marble gives up the relief, Donatello able to use the qualities he would find within the marble, as he worked, to good effect.

Donatello’s technique of “writing on marble” in such a way, makes it fairly easy to imagine what drawings for such a work might have looked like, for the strokes of the chisel correspond to the strokes of the pen, in terms of thick and thin lines and indication of deep areas of shadow. A good example of this is the

²⁰ Janson, 31.

²¹ Victoria and Albert Museum, 406 × 1143 mm, Pope-Hennessy, 1964, No. 61, 70-73. See also Planiscig (as by a Donatello imitator); Janson, 92-95 (as an autograph work); Avery, 1970, Pl. 29, 48-49 (as being by Donatello); Bennett and Wilkins, Fig. 76, 136-138.

²² Although it is difficult to be certain, it seems possible that he used only two chisels, the flat and the pointed, possibly also the round-edged chisel. See Bennett and Wilkins, Figs. 80, 81, 143-145. See also Wittkower, 1977, 11-32 for useful background on techniques; Penny, particularly 81-91, *The Traces of the Tool*.

figure in the marble panel who sits with his (her?) back to the scene, where the very definite and confident lines from the *Massacre of the Innocents* again find recognition. The body line is established in deepest relief, while the drapery takes on a lightness given that it is cut at a comparatively shallow level in relation to the body. Donatello's mastery of carving is shown in the various levels of drapery in the panel. The drapery of the figures to the front of the picture plane, i.e. to the left of the female figure, is cut fairly deep (in relation to the rest of the panel), the shoulder of the figure standing beside the kneeling woman, perhaps showing the marble at its deepest cut of around 5 mm. As this group receded, so does the level of the carving, until, with the angels, the depth of cut gradually disappears. At no time does the recession show any less care in the execution of the detailing.

The sheet in Rennes is of extraordinary importance in citing a drawing style for Donatello. In addition, it provides valuable information as to his probable working method, possibly also to the working method of his colleague Ghiberti, for it seem unlikely, given the evidence available, that sculptors at this time did create a range of working drawings, preferring to go to wax models, or indeed to the marble, as quickly as they could. The drawing in Rennes does show that Donatello thought in three dimensions, creating on paper, with the same methodology that he created on marble.

The Chatsworth Drawings

An earlier work provides both a contrast and a starting point in looking at how such an attitude to drawing might have developed. A sheet in Chatsworth,

Pilate Washing His Hands (recto) and *Christ Carrying the Cross (verso. 4)* was attributed to Nanni di Banco by Vasari, when he mounted the drawing for his *Libro de' disegni*.²³ Over the drawing of *Pilate Washing His Hands*, Vasari has mounted another drawing, *Four Dogs*.²⁴ The drawing of the four animals is significantly different in style to the two main drawings, and the reasons behind Vasari's desire to mount them together are unknown. Vasari attributed the sheet to both Nanni di Banco and Donatello, actually writing the name of *donatello* on the verso (bottom centre). He then changed his attribution to Nanni di Banco, as evidenced by the cartouche. This sheet represents a new, experimental journey at an early stage and it is at first difficult to conceive of an attribution to either master.

The *recto* of the Chatsworth sheet depicts a scene in which Pilate washes his hands to signify his refusal to be morally implicated in the decision to crucify Christ, a decision he takes through pressure by the mob.²⁵ Christ stands behind the dais on which Pilate sits, His wrists tied behind His back, guarded by soldiers. The highly significant act of washing the hands takes centre stage, while, to the right, a group of Jewish elders argue the case for the saving of Christ. The scene is very sketchy and lacks any level of detail. There is no shading as such, nor any use of hatching in any other but one rather arbitrary

²³ The cartouche reads: *Nanni di Antonio di Banco Scultore Fiorentino*.

²⁴ Degenhart and Schmitt, 1968, Nos. 264 and 267, 342-343 (*Pilate Washing His Hands* and *Christ Carrying the Cross* as Nanni di Banco or Donatello; *Four Dogs* as Circle of Donatello); Chatsworth Exhibition, 1973, No. 8 (as anonymous Florentine School); Ragghianti Collobi, Figs. 59 and 60, 45; Ames-Lewis and Wright, No. 50 A and B, 238-241 (*Pilate Washing His Hands* and *Christ Carrying the Cross* as possibly by Nanni di Banco; *Four Dogs* as possibly early fifteenth century); Jaffé, 1994, 136 a, b, c (as being by an anonymous artist).

²⁵ Luke 23:14: *Ye have brought this man unto me, as one that perverteth the people: and, behold, I having examined him before you, have found no fault in this man touching those things whereof ye accuse him.*

form. There is no sense of an architectural interior. The dais on which Pilate is seated is the only indication of space and this is rather poorly delineated. It is unclear as to whether the figure of Christ is to be read as standing in front of the dais or behind it, although the figure seems to be set on the first step of the dais, making the proportions of the figures of Christ and of Pilate entirely imbalanced. Similarly, there is little indication as to where the two figures serving Pilate are standing, the feet of the figure who holds the bowl have not been completed. The group of figures to the right appears in an area of the drawing which shows slight wear. The main character is the bearded figure who stands behind the figure serving Pilate. The figure appears to pull back the cloak of the figure offering Pilate a wash cloth (?) with the left hand and points accusingly towards Pilate with the right. This is the most firmly placed of the figures in the crowd. To the left of this figure is one that seems almost cropped to the right of the sheet. This figure raises its left arm towards Pilate. Behind these two figures are six others, one indicated only by two curved lines for a head, with the head of another figure, this time with a head-dress visible over the shoulder of the first bearded figure. A number of arms are raised in protest in the background. In drawing this scene the artist has concentrated on stressing the contours and in emphasising the forms closest to the front of the picture plane. There is little sense of form beneath the figures or of any understanding of the anatomical construction of the figures. For this reason the forms are rather dry and flat, lacking any rotundity or weight.

There is no indication of a refined knowledge of, or experience in, the application of a varied hatching scheme. Hatching appears as parallel

horizontal lines, fairly far apart, straightforward cross boxed-hatching to the seat on which Pilate sits, and vertical parallel-hatching to the bottom step of the dais. There are more subtle uses, for example to the material of the garment at Pilate's waist where the artist again uses boxed-hatching, and between the knees of the figure of Pilate where a horizontal hatching line has been used with a cross-line at about 45°, although this seems to be applied right across this area. There are also traces of the tiny, round stroke used by Jacopo della Quercia to define smaller areas of depth. These can be seen on the figure of Pilate's drapery (to the figure's right), where they accentuate the folds around the right leg. The lines to the figure of Christ's chest are slightly angled around the left chest area, where the artist has accentuated the line of the left side of the upper torso to bring the chest into relief. The strokes here have been applied in a fairly casual manner, had the artist hooked around the figure more, then that figure would have taken on more of a sense of three-dimensionality. The hatching on this drawing can be seen as a single consideration across the whole of the drawing and is not, as with other examples, hatching applied to particular areas of the action. For example, in Jacopo della Quercia's rendition of the individual Virtues on the *Study for the Fonte Gaia (1)* it is clear that, for some time, he concentrated his efforts on building up the individual figures with hatching. Here, the hatching is used almost like a wash across the whole sheet to define the light source, which comes across from the viewer's left, casting the left-hand side of the figures of Christ and Pilate into shade. The hatching lines, if they can be categorised as such, simply denote the primary areas of shade brought about by the lighting from the left, they are not used, to any great extent, to create in three dimensions. Such arbitrary use of hatching

shows perhaps a lack of knowledge, but also a lack of real interest in adding subtlety to the drawing and renders it very much in the category of a sketch, one that must have been done very quickly.

The *verso* of the sheet *Christ Carrying the Cross*, recounts the events of Christ's journey to Calvary, showing the figure of Christ bearing the cross. Two soldiers accompany the figure, one holding back the following crowd of figures with a shield and sword (?). The drawing is entirely similar to the *recto* in its approach, but less finished. This time the crowd appear to the left of the composition and consists of female mourners. There is movement in the soldier with its back to the viewer, with the left leg swinging round, allowing the figure to face the crowd, from his former forward position, with a clear attempt made, by the artist, to foreshorten the leg, changes to the angle of the outline of the leg clearly visible. It would seem highly likely that the same artist drew both *recto* and *verso*.

The drawing must surely be an early sheet and, as such, a vital link in the developmental chain. If Nanni di Banco is accepted as being responsible for its production, then the drawing must be no later than 1421, the year of Nanni di Banco's death. Taking into account the transitional nature of the drawing, then it would be fair to cite its date at quite early in his career, between 1410-1415, making this a drawing of around the same date as Jacopo de la Quercia's *Study for the Fonte Gaia*. Claims that this drawing bears similarities with Nanni di Banco's work of around the time of the Porta della Mandorla, begun in 1414, are somewhat unconvincing:

A comparison of Nanni's work on the Porta della Mandorla and at Or San Michele with that of Donatello's in the first two decades of the fifteenth century can enhance the possibility that both artists are authors of the drawing.²⁶

The argument over attribution must necessarily take account of a number of factors, and it is important that a balance be maintained in order to fully understand the scheme of development at this time. Given that there are no autograph drawings from sculptors, there has been a reliance on linking drawings to works in existence. This has led, in several cases, to drawings being dated alongside these related sculptural works. However, it is important that a wider view of an artist's development is taken. Given the transitional nature of the Chatsworth drawing, links must be made, on a primary level, to the sculptors working within this phase, namely Nanni di Banco and Donatello, the two artists most involved in this type of work. The link to the Rennes drawing, *Massacre of the Innocents*, must be made, not to establish or suggest similarities, but to compare the work of two different artists, for while both drawings show depiction of relief, they are surely by two different hands. The contention that the two sheets may be by the same artist, at different phases of his career, omit to take several factors into account, most importantly the acceptance of inherent awareness and ability, which can be evidenced throughout a career. Donatello's work, although clearly developing, illustrates a confidence and understanding from its earliest examples. The drawing on marble of *Christ Giving the Keys to Saint Peter*, of around 1430 (?) cannot be compared to the drawing from Chatsworth in this light. The artist working on the marble relief exudes a natural ability in and confidence of drawing in relief, of creating in depth and of varying the modelling to stage the telling of a story.

The beautifully proportioned figures have weight and balance and exist within a perspectival setting. The characters who call on Pilate are drawn by an artist whose understanding of creating in relief has not reached such a level of maturity. The natural line and depiction of surface contours are missing, as is the ability to cope with the laws of perspective. As the drawing from Rennes is by Donatello, then the Chatsworth sheet is from the pen of Nanni di Banco.

While the Chatsworth sheet may seem to lack much finesse when compared with highly finished contract drawings, it does show a desire to clearly state intentions in relation to the physical nature of carving and, as such, is a new departure. This is a utilitarian drawing and does not seek to entertain the viewer. Forms are very clear and economical, conveying only the basic information. For example, the bearded figure to the right of the *recto*, *Pilate Washing his Hands*, has a defined body contour, while its cloak and its primary sweep from the right are clearly marked out on the page. The positioning of its outstretched arm, as well as the head, masked by the hand of the figure on its left, establish that the figure is to be read as being towards the front of the picture plane. Similarly, the figure on the extreme right of the drawing is set, almost as an anchor for the composition, alongside the figure of the soldier to the extreme left, who will establish the composition's balance from the other side. There is really no hatching as such, simply shading, but shading necessary to show areas of cut away, where the figures will be in shadow. The heads of the figures to the back of the group will appear in very shallow relief and are

²⁶ Degenhart and Schmitt, 1968, 342.

therefore no more than outlines, for they will appear as outlines on the finished sculpture.

The *Massacre of the Innocents* is characterised by a number of indicators which point to the drawing having been produced for a piece of sculpture in relief. In addition, these characteristics are consistent in terms of a stylistic comparison with Donatello's relief sculpture. The figure composition shows a desire to intermesh various areas of action in such a way as to engage and hold the viewer's interest. The action is set up as individual scenes interlocked to sustain drama and emotional fascination. Even given such frenzied action there is still a sense of balance and control within the mind of the artist. Donatello shows an interest in the cameo opportunity, in focusing his attention on a figure and creating a scene within a scene, a character in its own right. The figure type has bulk and weight for it needs to be substantial within the scene in order to sustain its own strength and position. This shows a deep understanding of the human form and its inherent ability to move and react in a crowd. In the drawing *Massacre of the Innocents* this is particularly successful, the artist confessing a sense of the theatrical in the placing of the figures and the shaping of the composition. The drawing is also characterised by the sense of the sculptor's cut where there is a variation to the line and a confidence in its handling that is sustained in the final sculpted piece.

Drawings Associated with the Circle of Donatello

A comparison with drawings produced from his relief sculpture by followers of Donatello, not only provides an opportunity to appreciate the qualities of the

Massacre of the Innocents but also -- because of a failure to achieve a similar quality in execution -- to further study the perceived characteristics vital to the production of high quality drawings in relief.

Four drawings can be linked to the sculptures of the Santo in Padua. Two of the drawings, *Heart of the Miser* (34) and *The Miracle of the New Born who Proves the Innocence of its Mother* (35), are in the Biblioteca Reale in Turin, the third drawing, *Heart of the Miser* (36), is in the British Museum, the fourth, *Heart of the Miser* (37), is in the Uffizi, Florence.²⁷ The four are brought together for discussion in a short article by Patrick Ramaude, “Les feuilles ‘donateliennes’ de Turin”.²⁸ While the author does not suggest an artist or artists for these sheets (classifying the drawings as “Suite de Donatello”), the sixteenth-century dating of the sheets has been challenged in favour of a dating somewhere nearer the fifteenth century, close to the period of the work of Donatello: “Nous proposons de relever la datation et de placer au Quattrocento rapprochant ainsi les oeuvres de l’époque de Donatello”.²⁹ This contention is based on two facts, firstly the discovery of a watermark on the Turin drawing (15750) which has been identified by C. M. Briquet as being associated with

²⁷ Respectively: 15750 in the Biblioteca Reale in Turin: Bertini, No. 518; Degenhart and Schmitt, 1968, No. 502b, 372-373 (as Circle of Raphael); Ramade (in Sciolla), Fig. 5, passim (as follower of Donatello). There are English collection marks to the bottom right of this drawing. *TH* (Lugt 2432, from Thomas Hudson collection sold in London in 1779) and *R* (Lugt 2184, from the Richardson collection sold in London in 1747). On the *verso* is the inscription, *In this great Duk's collection is other part of this, ascrib'd also to Raffaele*; 15747 in the Biblioteca Reale in Turin: Bertini, No. 518; Ramade Fig. 3, passim (as follower of Donatello); an attribution dismissed by Ward, 1978, No. 59; Degenhart and Schmitt, 1968, No. 502c, 373 (as Circle of Raphael); 1484 E in the Uffizi in Florence: Degenhart and Schmitt, 1968, No. 502a, 372-373 (as Circle of Raphael); Ramade (in Sciolla), Fig. 9, passim (as follower of Donatello). While Degenhart and Schmitt do not discuss the second of the Turin sheets, they add another drawing from Chatsworth House to this group, a Madonna and Child (as Circle of Raphael) Duke of Devonshire Collection, 726A.

²⁸ *Da Leonardo a Rembrandt, disegni della Biblioteca Reale di Torino*. See Sciolla, 42-49.

²⁹ Ramaude (in Sciolla), 43.

German paper of around 1480-1490, and secondly because it is felt that the style is close, in terms of the principal graphic style, to the design in Rennes, *Massacre of the Innocents*.³⁰

Primarily, Ramade cites a similarity in characteristics: the uniform stroke; the exclusive concentration on characterisation; the use of the right profile; definition of the fingers; the lack of any annotation of the architectural background; similar schematisation of the facial features. While these characteristics are prevalent in the group of drawings, they somewhat fall short of the confidence of the *Massacre of the Innocents*. They obviously lack a sense of spontaneity and freedom of execution, mainly because they are copies, but there is also a lack of understanding as to how Donatello achieved passion, movement and drama in the drawing and consequently in the relief. Very importantly, however, these drawings seem to be copies by artist(s) who had grasped some feeling of method in the drawing of relief, perhaps from study of Donatello's work, during the quattrocento, as Ramade contests, or looking back at his work from some years later in the sixteenth century.

The three drawings after the *Heart of the Miser* have been attributed to the same hand.³¹ The sheet from the Biblioteca Reale in Turin (15750) and that from the Uffizi (1484E) appear to be two different versions of the same scene possibly by the same artist. Both sheets are cropped but are not continuations given the overlap of the seated female figure and the male figure kneeling to kiss the ground to the right of the Turin sheet and the left of the Florence sheet

³⁰ Briquet, 595-596. See Ramade (in Sciolla), Fig. 11, 43. No such watermark appears on

respectively. The sheet depicting the left-hand scene on the altar (British Museum Ff 1-1) captures a small group set against the column of the colonnade nearest the viewer. The drawings are not finished copies of the completed relief, for, as in the *Massacre of the Innocents*, there is no architectural detail, simply a concentration on the figures and their composition. They are either copies of the drawings completed by Donatello or his assistants in preparation for the sculpture itself or they are attempts to create versions of what such drawings may have looked like, using the completed bronze as a model. If they are copies of drawings by Donatello then his drawings must have been very close to the completed work. There is still the matter of a lack of any architectural or background detail, which supports the claim that Donatello used drawings as early sketches, moving onto wax models as the next step in the design process. It seems unlikely that students would copy anything other than something which was regarded as a completed drawing.

Although there are similarities with the *Massacre of Innocents* sheet in Rennes, the drawings exude none of the feeling for surface contour or confidence in the execution of the varying strength of line. The discovery of the watermark on the Turin sheet points to a paper in use in Southern Germany between 1480 and 1490, a paper revived in Northern Italy in the second half of the fifteenth century.³² Given the execution of the work at San Antonio from 1446-1450, these drawings could not have been produced in preparation for the altar and so must be seen as an exercise study of the completed work or as copy drawings. Whichever is the case the drawings must have been carried out by an artist (s)

either the London sheet or the sheet in Florence.

who was familiar with the style of Donatello's drawings and who could have had access to studio material from his time. These drawings therefore support consistency in Donatello's drawing style.

The artist(s) here replicates the characteristics of the *Massacre of the Innocents*, but this time imposes such characteristics externally. Because the drawings are copies of a composition in another medium, they lack the power of primary conception and the intent of the original artist. Donatello's intermeshing of the various components of the figure composition is much stronger in the drawing where simple lines support the drama. While there is great drama in the completed bronze, the support of this new medium and the now physical weight of the characters and their surroundings supersede the drawing in its status as a creation at a certain point of time and at a specific stage in the final execution of the panel. These copy drawings then take on a new character (given that the artist [s] may have had access to both drawing and bronze relief) as graphic representations, using what Ramade calls, "un système de notation synthétique".³³

The drawings show an understanding of the recession of figures, not as a flat receding gradation, but illustrate a comprehension of Donatello's setting of the framework and the placing of figures (or parts of figures) within these schemes to push the action to the front of the picture plane. Similarly, the Donatello trait of capturing cameo scenes comes across in the drawings, for example, the seated female figure to the right of the Turin sheet and the character kneeling to

³¹ Bertini supports the case for the drawings being by the same hand, No. 517.

kiss the ground (the figure of the man bending to kiss the ground is very similar in the sheet from the Uffizi). The three drawings define the physical cuts of the sculpture and make use of the doubling of the lines to accentuate the principal lines of cut. As in the *Massacre of the Innocents* there is little use of hatching. Donatello makes use of simple parallel hatching for areas of deep shade and deeper, darkened outlines to lead the eye behind the figure, as in the right-hand shoulder of the kneeling mother to the right of the Rennes sheet.

In the Uffizi sheet there is more overworking in terms of hatching and shading, particularly to the figure group to the extreme right, where the figures are pushed away from the scene by the main female character. In keeping with Donatello's "method", however, the outline of this main character in the group is much heavier and able to dominate the figures behind, a similar trait to the handling of the second kneeling female figure which is even further forward of the picture plane.

Drawings Associated with Followers of Donatello

A number of related drawings have been identified as constituting work by followers of the master. These include several sheets which illustrate a drawing style which has been somewhat exaggerated in the work of later followers. One such drawing is *Four Grieving Figures*, currently in the Louvre in Paris (38).³⁴ There is a fold down the middle of the drawing and evidence of gluing, which

³² Ramade (in Sciolla), 43.

³³ Ibid.

³⁴ Paris, 1881, No. 43, 35 (as Donatello); Degenhart and Schmitt, 1968, No. 286 (Plate 268a, as Circle of Donatello). On the *verso* of the sheet appears the following annotation in Richardson's handwriting, *Donatello (whose other name is unknown) was a Florentine sculptor ...*

suggests that the drawing came from a sketch book. The individual figures themselves are of interest in mapping their execution against the emerging criteria gleaned from the Donatello sheet in Rennes. These are studies of individual figures and so there is no evidence of any compositional build up, of staging the action, or of sustaining the viewer's interest with cameo studies. The female figure (second right on the sheet) has a familiar character and recalls a standard female figure type used by Donatello, particularly in Padua. The figure displays many of the characteristics that have already been discussed in relation to a drawing style synonymous with relief.

Of prime importance is the establishment of the outline of the body. Here, the drapery enfolds a believable torso that sits on the ground, the hands clasped across the right knee which is crossed over the left leg. The lines on the drapery define areas of cut, while the depiction of the folds in the material on the left of the cloak (rounded indentation marks) recall those used to denote similar areas of depth in the Rennes sheet. Parallel-hatching has been used to note the deepest areas of shade, but there is no cross-hatching on this particular figure. The facial features are simple, the eyes sockets deep indentations, and the mouth and nose indicated by heavy lines. The hands also recall Donatello's style, particularly in the female figure second from the right, where the fingers of its right hand are simple ovals, recalling the hands of the baby in the *Massacre of the Innocents*. The depiction of the female figure to the extreme left moves away from Donatello by using cross-hatching in the deeper areas of drapery. This move to take on new drawing techniques is not unusual given the

sense of a developing graphic style in what appears to have been a period of experimentation and discovery.

A tentative developmental strand now begins to emerge from the *Massacre of the Innocents* through the sheets depicting the high altarpiece of San Antonio in Padua and on to the Louvre sheet, *Four Grieving Figures*, as part of a transitional phase which sees a move to a more exaggerated approach, as illustrated in another sheet in the Louvre, *Mourning Women with John supporting the Mother of God (39)*.³⁵

The sheet shows three figures, two females and what seems to be a male figure (identified by Degenhart and Schmitt as John). One of the group has fallen forward (identified by Degenhart and Schmitt as the Mother of God) and is supported by the male figure. The sheet has been cropped to the right and so the main subject is now unclear (it may well represent a *Lamentation of Christ*, for example). There are certain similarities with the *Massacre of the Innocents* in terms of the basis of its compositional ideas and the desire to create a feeling of sadness and mourning. The two female figures to the left are also reminiscent of the *Four Grieving Figures* discussed in relation to Ghiberti where the left-hand figure and the figure fourth from the left are closest to the picture plane and lead the eye back into the picture itself, with the two groups moving to the rear of the action from deep to shallow relief. The grouping of figures on the Louvre sheet (Inv. 1150) is similar to the Rennes sheet in relation to a set framework for the action. Here the grouping of the three

³⁵ Paris, 1881; Degenhart and Schmitt, 1968, No. 501, 371-372. The Louvre Museum give the

principal figures seem to push forward towards the front of the picture plane and so accentuates the action taking place to the right (i.e. beyond the edge of this sheet). The poses of the figures are also similar to the *Massacre of the Innocents*), particularly in the body lines. The depiction of angst in the face of the left-hand female figure is similar in intent to the right-hand figure in the Rennes sheet. The upper body of this figure is also reminiscent of the figure to bottom right of the Rennes sheet in the gathering of the hands and the angle of the head. The Louvre sheet shows little of the confidence of line and the speed of execution of the Donatello drawing and little of its inherent movement and rhythm, for the artist moves away from the use of the line to depict the depth of cut here using heavy and deliberate hatching to show areas of depth and shade, recalling Jacopo della Quercia and looking forward to the work of Ghirlandaio.

While the drawings studied in this section contribute to an understanding of the characteristics of Donatello's drawing style and, it is conjectured, the dominant style for graphic rendition of relief at this time, they do little to support an understanding of his likely working method. The dearth of drawings may point to Donatello's low utilisation of such a working process, the artist preferring to create models or to move more quickly to the finished medium. Similarly, the drawings are studies for relief and so any understanding of his method of working in the round is likewise unclear.

Massacre of Innocents and its verso, *David Triumphant* has, until recently, been the only drawing considered as being attributable to Donatello. Another

artist as Donatello.

drawing has come to light which also lays claim to his authorship.³⁶ The drawing, currently in a private collection, has strong links to the Rennes sheet and connections with a major piece of sculpture in the round, Donatello's *Zuccone*.³⁷

The drawing, *Study of a Male Figure (40)* shows a male figure who has turned to its right and is therefore shown in semi-profile, the right foot seen in front of the left as if the figure has stepped forward.³⁸ According to George Goldner there appears to be nothing on the *verso*, although there is an inscription on the top of the mount (according to Goldner "perhaps 19th century or early 20th century"), *Raffaello da Urbino*.³⁹ The sheet is slightly irregular, and measures 288 × 105 mm, "Curiously, this is the same height as the Rennes sheet by Donatello".⁴⁰

The figure is dressed in a long toga, although a line has been drawn across the left knee, which suggests the artist was trying out two different styles of dress, or that the figure was to wear a short tunic with the longer toga on top. The toga is gathered at the left shoulder, rather like the cloak of the *Zuccone* figure and indeed that of the figure of *Jeremiah*.⁴¹ The body of the figure has first

³⁶ I am indebted to George Goldner, Drue Heinz Chairman of the Department of Prints and Drawings at the Metropolitan Museum of Art in New York for bringing this drawing to my attention.

³⁷ Janson, Pls. 15d, 16a and 124e, 33-41; Goldner, 1974, 187-189; Schultz, 3; Lightbown, 1980, Pl. 134, 98, 137; Phipps-Darr, ed., Fig. 13, 37; Poeschke, 1993, Pl. 56, 381-383; Pope-Hennessy, 1993, Figs. 60-62, 65-70, 327 (footnote 17); Avery, 1994, Pl. 19, 24; Pope-Hennessy, 1996, Pl. 18, 26, 350-351.

³⁸ For ease of reference the drawing will be referred to as *Study of a Male Figure*.

³⁹ "There does not appear to be anything on the verso or, at least, one cannot see anything when a strong light is out on it through the mount". Quoted from private correspondence from George Goldner.

⁴⁰ *Ibid.*

⁴¹ *Zuccone*, 1423-1426 (see footnote 37); *Jeremiah*, 1427-1436; Janson, Pls. 16b, 17a, and

been sketched and it has then been “dressed”, for the outline of the left leg shows through the garment. The first line of the right leg also shows through the material, but the artist would seem to have given up this initial idea (there is no completion of the foot) and decided to have the right leg beyond that of the left. This makes the stance of the figure rather imbalanced. This second right leg’s outline can also be seen beneath the toga up to the figure’s waist. The elaborately gathered material falls from the left shoulder and down the front of the body, making for a heavy fall of drapery, much as in the figures of *Zuccone* and *Jeremiah*. The left arm comes down the side of the body and seems to grasp the material, in the action of pushing the long toga back to enable the figure to walk forward. This action is comparable to the left arm of the *Zuccone* but is not close enough to directly connect the drawing to the completed sculpture.

The sheet can, however, be compared closely with the sheet in Rennes, the *Massacre of the Innocents*. The first point of comparison is the general handling of each drawing, in terms of a confidence in the depiction of line and a feeling of action in the figure style. The *Study of a Male Figure* might seem to be imbalanced if the leg area is isolated, but the artist has, with a few careful strokes, achieved great movement in the upper body. This is in keeping with the figure movement in the *Massacre of the Innocents*, but also relates to the methodology employed during the execution of the figure *David Triumphant* on the *verso* of the Rennes sheet. Here, the stance of the figure has been altered in terms of line, the artist establishing the balance and stance of the figure

124f, 33-41; Goldner, 1974, 188; Schultz, 3; Lightbown, 1980, 96; Poeschke, 1993, Pl. 57,

before any decoration is added. The artist has also toyed with various ideas for the dressing of both figures, in the case of the figure of David as to whether or not the statue would be nude, and, in the case of the male figure, whether the toga would be short or long.

In terms of graphic style, *Study of a Male Figure* has a number of mannerisms in common with the *Massacre of the Innocents*. The three deep strokes of the hand show the basis of the formation of hands in the Rennes sheet. The hand begins with three or four heavy strokes and then the fingers are built up by joining the strokes at the ends with curved loops to complete a finger shape. Little more is done in this area in the two drawings, establishing both drawings as sketches and not completed exercises. Careful study of the fingers of the figure in *David Triumphant* shows that the hand was built up starting from heavy strokes.⁴² There is a similar relationship between the style of foot in all three drawings under discussion. The feet of the figure to the bottom left in *Massacre of the Innocents* have a basic shape and little else by way of any detail, while the feet in *Study of a Male Figure* and *David Triumphant* are built up from a basic pattern of raised toe and indented ankle, the line up the calf is the same from the back of the ankle to the bulge at the bottom of the calf muscle.

A number of subtleties link the *Study of a Male Figure* with the Rennes sheet.

The first is the idea of creating a cameo figure, each figure within a

381-383; Pope-Hennessy, 1993, Figs. 58 and 59, 65-70; Pope-Hennessy, 1996, Pl. 13, 350-351.

⁴² This is, admittedly, difficult to see because of the overdrawing and the alteration to the angle of the hand, but the initial hand placement shows two lines, any others overdrawn.

composition able to sustain the viewer's belief in its own strength and position within a scene. It is tempting to link the figure in *Study of a Male Figure* with the *Massacre of the Innocents*, particularly as both drawings are the same height, and, while it may well be that the figure indeed depicts a soldier from that same scene (as part, perhaps, of the wider composition), only close comparison of the drawings side by side would render any validity to such an idea. However, the handling of the line, the outlining of the figure shape, and the knowledge of human anatomy does clearly link both drawings.

In relation to the sculptor's cut, there are recognisable parallels. In the *Massacre of the Innocents* such a cut was seen in the heavy lines to depict the indentation of the bend of the knee of the figure kneeling bottom left, the deep stroke to define the right leg in the same figure, and the bend of the arm of the figure in the centre of the composition. In *Study of a Male Figure* this same sculptor's cut is seen in the left foot, where the artist uses the heavier stroke to show the bend between foot and ankle. There is similar use of the heavy stroke (also used by Jacopo della Quercia to suggest deep indentation) to the toga of the right leg, suggesting depth in relief, and to the waist of the figure to show depth, as the material bunches around the waist area. Such similarities, coupled with the personality of this drawing, suggest a strong attribution to the author of the *Massacre of the Innocents* -- Donatello. The case for the identification of a defined style of graphic rendition in relief, linked to Donatello, is strengthened by such discovery, but also adds weight to there having been a reasonable source of material from which younger sculptors could learn their craft.

By this point in the study of the century's sculptors' drawings, while the corpus of drawings for consideration is relatively small, the drawings available for study cover a reasonable range of technique and provide evidence of a developing trend. The Quercia drawing anchors the century and provides an insight into new and innovative work. The drawings associated with Ghiberti do not contribute in any strong sense, but the drawings associated with his circle do provide evidence of continuity of development. The drawings by or associated with Donatello afford strong evidence of a well ordered technique in the rendition of relief. Such work furnished the sculptors of the next years of the century with a springboard for further developments.

THE INFLUENCE OF THE EARLY MASTERS ON A NEW GENERATION OF ARTISTS

In terms of sculptural activity and innovation within the period of the quattrocento, the century is highlighted by the works of groups of masters of the same generations. Brunelleschi, Ghiberti and Donatello were all born within ten years of each other and formed a group of sculptors credited with the creation of some of the greatest masterpieces of the Renaissance. The next generation of artists had the benefit of being active while these masters were still in practice and learned to work within already established conventions. To some extent, there is a feeling of a lull in activity leading up to the careers of Leonardo and Michelangelo, as this group of sculptors learned and developed the ideas they had gleaned from their masters. In this context, the work of such early masters must be seen as the inspirational starting point for much of the creative output of a group of sculptors which includes Antonio Rossellino, Desiderio da Settignano, Andrea del Verrocchio and Antonio Pollaiuolo.¹

Donatello's *Massacre of the Innocents* (5) set a milestone in the corpus of drawings related to sculpture in the quattrocento in terms of its place in establishing a style related exclusively to relief work from which followers and pupils could gain inspiration. There is evidence of Donatello's style having influenced a number of followers but no real sense as to where a drawing might have figured within his working process. The emerging style of drawing for

¹ Butterfield sets Verrocchio against this background, considering him the only artist to adopt "the impress of a restless intellect in search of new solutions . . ." Butterfield, 1-2.

relief, as illustrated by such followers, also links to what might be seen as the likely basis of Ghiberti's drawing style, for example, in the drawing *Studies for Six Walking Figures* (28), and so there is the semblance of a flourishing style by mid-century. While there are relatively few drawings on which the modern reader can base a study of the graphic work of quattrocento sculptors, there is a wide enough range of material with which to build a reasonable picture of what typical drawings might have looked like.

The Drawings of Desiderio da Settignano and Antonio Rossellino

The earliest part of the century gave up little material and sparse documentary evidence of processes and procedures or of artistic relationships, but the impact of the influential masters on the stylistic marketplace must have taken place within a network of fervent artistic activity. The relationships enjoyed by artists of the quattrocento are likely to have existed on the basis of any modern day professional keeping abreast of developments within a specialist field.

Competition for major commissions during the quattrocento was fierce and it was important for artists to be aware of the work of their rivals and to take advantage of new ideas and influences. Supporting evidence of what might be called "networking" is difficult to amass and much reading between the lines is necessary to build up a picture of such interaction, albeit a tenuous one. While documentary evidence may be light, it seems unlikely that, for example, Sieneese masters did not travel often to Florence and vice versa, or that artists were not fully aware of the output of other workshops and the business

infrastructure in which they worked.² Against this background, the work of Antonio Rossellino and Desiderio da Settignano is of interest in highlighting a partnership where two artists worked close at hand, competing in the same marketplace, and who were open to the influence of others working around them in Florence, principally Donatello.³

The attribution of completed sculptural works to Desiderio da Settignano or to Antonio Rossellino is problematic.⁴ Little documentary evidence exists to link specific works to Desiderio, although works attributed to him form a larger body of work. A clear sense of the individual styles of the two artists is necessary before useful discussion can take place in relation to the two drawings associated with the two artists, *Studies of the Virgin and Child* by Antonio Rossellino (41) and *Studies of the Virgin and Child* by Desiderio da Settignano (42).⁵ To this end, the tombs of the Cardinal of Portugal and that of Carlo Marsuppini furnish the discussion with two large scale pieces for comparison, while two Madonna and Child reliefs, one by Rossellino,

² James Beck discusses a possible scenario in his article, *Jacopo della Quercia and Donatello: Networking in the Quattrocento*, alluding, in particular to the perceived rivalry between Jacopo della Quercia and Ghiberti. Beck, 1987, 6-15.

³ For insight into the professional relationships of the artists see Markham, 35-45; Schultz, 3-7, 82-85; Lightbown, 1980; Beck, 1987, 6-15.

⁴ Desiderio received payment for a design for the Chapel of the Madonna della Tavola in Orvieto Cathedral in April 1461. Around 1461, he was also working on the sacrament tabernacle for San Lorenzo, but, while the painter Neri di Bicci mentions Madonna reliefs in his diary, it is not possible now to identify them. Poeschke, 1993, 424. For background to Desiderio da Settignano's *oeuvre*, see Vasari, trans. Gaunt, 33-35; Planiscig; Phipps-Darr, ed., 180-184; Pope-Hennessy, 1996, 114-118, 375-378 and *passim*. For background to the work of Antonio Rossellino, see Hartt, 1961, 387-392; Lightbown, 1962, 102-104; Vasari, trans. Gaunt, 29-33; Avery, 1970, 100-115; Schultz, *passim*; Carl, 612-614; Phipps-Darr, ed., 175-179; Pope-Hennessy, 1996, 118-126, 372-374 and *passim*. For more specific material on Desiderio da Settignano, see Beck, 1984, 203-224 (with specific reference to problems in documentary material covering the lives of Desiderio and Antonio Pollaiuolo). For specific works by Antonio Rossellino, see Beck, 1980, 213-217.

⁵ *Studies of the Virgin and Child* by Rossellino: Middeldorf and Weinberger, 64-68; Planiscig, Pl. 16, 20, 44 (as a study by Desiderio da Settignano for the *Panciatichi Madonna*); Pope-Hennessy, 1968, Fig. 78, 75; Goldner, 1989, Fig. 17, 469-473; Poeschke, 1993, Fig. 51, 424 (as Desiderio da Settignano). *Studies of the Virgin and Child* by

Madonna and Child, the other, the *Panciatichi Madonna*, by Desiderio da Settignano, present finished pieces for stylistic comparison with preparatory sketches, even if the drawings are not directly related.⁶ Links to these completed sculptures set the attribution of the respective drawings in context, the work of Rossellino more controlled and stylised than that of the naturalism shown in Settignano's work. However, over simplification in the granting of attribution must be avoided, for there is much to be done on the attribution of the sculptures themselves, a difficult task in the face of little supporting documentary information and one not possible within the bounds of this thesis. The pieces chosen for comparison have strong links to both Desiderio da Settignano and to Antonio Rossellino and are used in the context of such status.⁷

Studies of the Virgin and Child by Antonio Rossellino is a drawing of great intimacy and grace, where the interaction between the mother and child shows a sweetness perhaps not transferred, in terms of personality, to the figures of

Desiderio da Settignano: Goldner, 1989, Figs. 19-22, 469-473.

⁶ The *Panciatichi Madonna* has commonly been attributed to Desiderio da Settignano due to its similarities with the *Madonna and Child* of the *Tomb of Carlo Marsuppini*. The *Madonna and Child* by Antonio Rossellino, currently in the Kunsthistorisches Museum in Vienna, mirrors the arrangements favoured by Settignano in terms of the pictorial grouping. *Tomb of the Cardinal of Portugal*: Schultz, Figs. 182-186, 85, 88; Poeschke, 1993, Pls. 192-194, 422; Pope-Hennessy, 1996, Pl. 146, 159-165; *Tomb of Carlo Marsuppini*: Planiscig, Pls. 22-36, 22-28, 45; Janson, 193, 237; Avery, 1970, Pl. 77, 105-107 (particularly interesting is Avery's comment that Bernardo and Antonio Rossellino may have been the sculptors brought in to help with such a large work); Schultz, Figs. 167 and 168; Lightbown, 1980, 126, 130, 271 (footnote 3); Poeschke, 1993, Pls. 199-201, 424-425; Pope-Hennessy, 1996, Pls. 139-141, 146-149, 377-378. *Panciatichi Madonna*: Planiscig, Pl. 14, 20, 43; Goldner, 1989, Fig. 26, 472; Poeschke, Pl. 198, 424; Pope-Hennessy, 1996, Pl. 112, 118. *Madonna and Child*: Passavant, App. 5, 204; Poeschke, 1993, Pl. 191, 421-424.

⁷ Such difficulties are highlighted when taking into account works such as *Virgin with the Laughing Child*, a terracotta group which Pope-Hennessy and Avery attribute to Antonio Rossellino, Avery dating it at around 1465. While this would be a late work for Antonio Rossellino it highlights problems of attribution given that the subject might earlier have been linked to Desiderio da Settignano. Pope-Hennessy, 1968, 72-77; Passavant, App. 8, 204; Avery, 1970, Pl. 87, 114.

his completed work.⁸ Here, the artist is concerned with establishing volume and bulk to the figures, creating realistic weight and movement, while establishing a relationship with the viewer. The *recto* shows two versions of the Madonna and Child, the first with the Madonna looking to the right with the Child on the right knee, the second with the first position reversed. The Madonna has a serene countenance, achieved with very fluid, if short strokes of the pen, both heads tilted to a Child who looks out to the viewer. The Child is portrayed as rather a chubby figure, but, as in the sculpture *Madonna and Child*, a very human baby, this time looking downwards, while seeming to raise the right hand in blessing. There is little internal modelling, but the artist is clearly concerned only with the outline of the figures and their placement in relation to each other, much as Donatello in the *Massacre of the Innocents*. A comparison of the drawing with Rossellino's sculpture *Madonna and Child* shows close similarities. The sculpture shows the Virgin in a classical pose, in keeping with the reverence of the scene. In both sculpture and drawing, the hair is drawn back from the face towards the ear, characterised by an area of higher relief in both cases. The hair to the front of the head is also similarly pulled back towards the crown of the head and topped by a loose head-dress.⁹ The Madonna to the left of the drawing holds the Child's left foot, although this arrangement has been changed in the relief to have the Virgin's knee moved up into a higher position, thus altering the position of the Child (now sitting up higher and away from the Virgin's body) and moving the Virgin's hand across

⁸ Poeschke's tentative attribution of the drawing to Desiderio da Settignano is understandable given these considerations.

⁹ This is difficult to make out on the Uffizi sheet, which is cropped in this area, but it is possible to see the fall of the headdress to the back of the head. The headdress is more clearly seen in the group on the right of the *recto*.

the left leg of the Child to hold the toes of the right foot. There has been, therefore, a simple alteration to the original pose of the drawing.

As observed in the work of Donatello and the copies of Donatello's drawings, discussed in the previous chapter, the fingers of the Virgin in the drawing have been designed using short, heavy strokes, no attempt having been made to refine their placement, but the sculpture shows very elegantly worked hands, the right hand, which supports the Christ Child, pushing His body forward in terms of relief, much as in the drawing. While the completed sculpture is much more detailed, the drawing establishes, in the mind of the artist, his most important considerations, in terms of the placement in relief of the principal figures, as well as an indication as to where the areas of drapery will come into play. In this case, the drawing must surely have strong links to the completed relief.

The drawing reputedly by Desiderio da Settignano and currently in the John Paul Getty Museum is of a much different character. The attribution to Desiderio da Settignano was made by George Goldner in *A Drawing by Desiderio da Settignano* in 1989.¹⁰ This was made on the basis of a comparison with Desiderio's completed sculptural work in the absence of any other sheet linked to the artist.¹¹ Goldner compares the *recto* of the sheet with the *Panciatichi Madonna*, one of the few pieces universally accepted as being by the sculptor and one which has close ties to the drawing. In addition, the *verso*

¹⁰ Goldner, 1989, 469-473.

¹¹ *Ibid.*, 469.

of the sheet links closely with Settignano's work on the *Tomb of Carlo Marsuppini*.

The *recto* of the drawing shows seven versions of a Madonna and Child composition:

- | | | | |
|--|---|--|---|
| 1.
Madonna faces to the right with the Child standing on the right knee and looking up. ¹² | 2.
As (1) with the Child sitting down, the Madonna's legs uncovered. | 3.
The Madonna stands behind a shelf, looking to the left, the Child standing on a cushion (?) to the Madonna's left. | 4.
As (3) with Madonna's legs in view. |
| 5.
Cropped upper half of Madonna looking to the right with the Child clinging to her neck. | 6.
Cropped head and shoulder of the Madonna. | 7.
Madonna looking to the left with the Child to the left, cradled in His mother's arms. | |

Two of these versions link to works by Desiderio da Settignano, sketch seven which bears close comparison to the *Panciaticchi Madonna*, in addition to sketch three, which has close similarities with the *Foulc Madonna*.¹³

The drawing style is quite different from that of the Uffizi sheet by Antonio Rossellino, particularly as the figures seem to have been drawn much more deliberately. There is no quick, short stroke, but rather a more measured and less self-assured attempt at creating the line. As with the Uffizi sheet there is no attempt at internal modelling or any tonal shading. There is a parallel single-hatching to certain areas of drapery in sketch two, around the Virgin's chest and the left arm of the Child; sketch three, down the front of the upper part of

¹² In these examples, left and right is used in reference to the figures' left and right.

¹³ *Foulc Madonna*, Planiscig, Pl. 17, 37, 44; Phipps-Darr, ed., No. 58, 182-183; Goldner,

the Virgin's garment and more detailed hatching from the waist band, down to the knees, where the tiny lines follow the line of the folds of material; sketch four, to the right of the Virgin's garment, where the cloak (?) comes down behind the lower gown. The treatment of the fingers is altogether different from the Uffizi sheet, with the fingers drawn in, time having been spent in adding detail. The sheet shows an exercise in working out ideas for a relief which could have been a Madonna and Child seated on a chair, or could have been the two figures standing behind a shelf, therefore the sheet must represent an idea in its earliest stages. The sheet may have been used as the basis of several such commissions being fashioned in what would have been a busy Renaissance workshop.¹⁴

Sketch number three has close ties to the *Foult Madonna*, currently in the Philadelphia Museum of Art, which shows a Virgin in a similar position, with the Child bunching the right hand into a tiny fist, while holding drapery with the left, just as in the drawing, the artist using hatching to accentuate the drapery being pulled up towards the Child's waist. Noticeably, both sets of figures look out to the left. The second sketch to link to an existing relief is number seven which has close ties to the *Panciatichi Madonna*, now in the Bargello in Florence. Side by side, the two are remarkably similar.

Both drawing and sculpture show the figure of the Virgin facing to the left

1989, Fig. 27, 470; Pope-Hennessy, 1996, Pl. 111, 114, 376.

¹⁴ Goldner discusses the uses of drawings in a workshop of the status of that of Settignano, pointing out that such drawings must have been considerable in number, given the need to supply assistants with clear instructions for the creation of models etc. In addition, he suggests such drawings were shown to patrons and may have provided the opportunity

with the Child sitting on the left knee of the figure of the Virgin. The right hand of the figure of the Virgin crosses the chest of the Child, with the left hand of the Child coming up to hold the wrist. The left hand of the Virgin supports the figure of the Child. It comes into view in the sculpture, but is not obviously seen in the drawing. The figure of the Child in both drawing and relief shows clear movement, as it tries to wriggle towards the viewer. The positions of the heads are also comparable, the head of the figure of the Virgin in the drawing inclined downwards towards the head of the Child, the angle different in the relief. Only the main lines of the fall of drapery are shown in the drawing with the drapery much more detailed in the relief. This is in keeping with the method of setting the principal outlines clearly within the drawing, as a matter of importance, but also shares stylistic traits with the very shallow areas of relief in the *Panciaticchi Madonna* where the drapery seems flattened from the surface.¹⁵ It is difficult to tell whether there is similarity in the position of the Virgin in the drawing as the bottom of the sheet has been cropped. The figure of the Virgin may well stand in the drawing, but clearly sits in the completed work.

The personality of the figures of the Virgin in both drawing and in the *Panciaticchi Madonna* relate closely to that of the Virgin of the *Tomb of Carlo Marsuppini*, all three share the same characteristics, the space between the eyelids and the eyebrows, focusing the viewer's attention on the facial

to select a motif from a range of images. Goldner, 1989, 473.

¹⁵ Goldner points to the similarities in the drapery folds: "Moreover, the sketch already shows, with the long stroke, the drapery folds that come over the left shoulder and side of the Christ Child in the relief, a seemingly minor motif that contains both visual and emotional meaning". Goldner, 1989, 471. This flattening of the drapery is also in contrast to the more rounded forms of Rossellino's *Madonna and Child*, such a differentiation evident in a

expression.¹⁶ While there are close similarities to both the work of the *Tomb of Carlo Marsuppini* and that of the *Panciatichi Madonna*, in sketch number seven of the John Paul Getty sheet, there are problems in reconciling this sketch with the other six, for there are surely two different artists at work.

The sheet has seemingly been completed, as previously discussed, as a preliminary sketch to determine the position of the Virgin and Child for a given commission, whether or not Desiderio da Settignano drew all of the figures is open to question. The facial qualities of the Virgin are perhaps the most useful starting point for discussion. The closest comparison is with sketch four where the nose is formed differently, with a one line stroke in an inverted “seven” shape, a consistent technique across sketches one to six. The nose of sketch seven is more elongated and more refined, much closer to the nose of the Virgin in Rossellino’s drawing. The lips are much fuller and have more shape in sketch seven, whereas the lips in the other sketches are composed of very simple lines. There is a different hairstyle entirely in sketch seven, again, more similar to the Virgin of Rossellino’s Uffizi sheet, with the head-dress falling down the back of the neck. All the garments of the figures in the first six versions have V-necklines to their garments, with waistbands and cloaks, but the last sketch has quite different clothing. The hands are much more complete in the first six sketches, in that there is an indication of fingers and thumbs, but a very basic hand, made up of quickly sketched lines to denote fingers, appears on the last sketch. Finally, the figure of the Child is different to the others. This

comparison of the two completed reliefs.

¹⁶ The Virgin of the *Tomb of Carlo Marsuppini* is in a different category given the deeper carving and the viewing point at which it would be seen. These differences apart, the faces of the three figures are stylistically very close.

is a much more human child who wriggles to free himself and carries greater volume than the others, all of whom are denoted with the same hairstyle (although sketch five is more similar to sketch seven). While the drawing is the work of a sculptor, it is uncertain whether the drawing is the work of one or two artists. The underdrawing may have been completed by Desiderio, with an assistant taking over the final pen work. It would then be feasible that Desiderio added his own hand to the last Virgin and Child.

The *verso* of the drawing puts Desiderio's involvement beyond doubt, for there are links to the *Tomb of Carlo Marsuppini*. This was also originally sketched in black chalk and later overdrawn with pen and black ink and shows many elements of Desiderio's ornamental style. Particularly interesting is the sphinx with the elaborate foliage which is echoed (in reverse) on the lower right of the *Marsuppini Tomb*, and the leaf motif at the centre of the throne on the drawing which is used extensively on the finished tomb.¹⁷ While the drawing may have been for a free-standing work, it is more likely to have been produced for a relief, given the single viewpoint.¹⁸ The drawing is unique in the collection of early work, in giving insight into likely working practices in the Renaissance workshop. The *recto* shows a range of different ideas still very much in sketch form, either as instruction to assistants or as information for clients, while the *verso* shows the artist at work on an idea for a completed piece.

¹⁷ See Goldner, 1989, Figs. 29 and 30, 473.

¹⁸ "It seems possible that the *verso* was drawn in preparation for a terracotta relief: its rich ornament would perhaps have had a more felicitous appearance in painted terracotta than in marble." *Ibid.*, 473.

At this point in the century, although the corpus of work under consideration in the category “sculptors’ drawings” is still small, the type of drawing which comes up for attention is of a type which complements the significantly important group of drawings to emerge from the beginning through to the middle of the century. The work of Desiderio da Settignano and Antonio Rossellino shows the influence, but not the flair of Donatello in terms of his ability to create rotundity and weight with the very outline of a figure. It is reasonable to suggest, however, that drawings of the type attributed to the master did form the basis of much of their approach. From this next stage on, more drawings exist for research and analysis, particularly in relation to Ghirlandaio and Verrocchio who, in their turn, foresee the careers of Michelangelo and Leonardo.

Ghirlandaio’s Cross-Hatching Technique

Ghirlandaio’s graphic style is of importance to the present discussion on a number of levels. Despite Michelangelo’s attempts to blot out his debt to Ghirlandaio, it seems unlikely that the intricately detailed early drawings were not due, at least in part, to the influence of his master.¹⁹ The corpus of drawings associated with Ghirlandaio provides a portrait of an artist who used the medium of drawing as a means to an end, as a way to map out compositions and to work on ideas.²⁰ Those drawings which remain are mainly in the category of sketches or studies and a large proportion of these are linked to the

¹⁹ In an article of 1993, Cadogan discusses the relationship and includes documentary evidence to prove Michelangelo’s presence in the workshop in 1487. Cadogan, 1993, 30-31. For examples of early drawings, see Michelangelo’s *Study after Masaccio’s Consecration of the Carmine* in the Albertina, Vienna (List of Drawings; 25); *Study after Giotto* in the Louvre, Paris (List of Drawings; 26); *An Old Woman resembling a Witch with a Boy standing beside her* in the Ashmolean, Oxford (List of Drawings; 27).

period of his latest frescoes in Santa Maria Novella, where he probably worked from a small-scale drawing or a *sinopia*.²¹ While Ghirlandaio's drawings are preparatory works for paintings, they show the influence of a technique which found its basis in the work of sculptors and which highlights the quality of Ghirlandaio's visual perception.

Ghirlandaio is credited by many modern art historians as the originator of cross-hatching, a technique which highlights his growing confidence in the handling of the pen.²² While it may seem, from the corpus of Ghirlandaio's drawings now available to twentieth-century scholars, that cross-hatching was introduced by the artist, it is surely the case that he was either reviving or continuing the methods developed much earlier in the century by artists such as Jacopo della Quercia and Lorenzo Monaco. Chris Fischer, too, credits Ghirlandaio with the development of what he calls, "Ghirlandaio's system of cross-hatching", characterised by broad spaced hatching with strengthened contours.²³ While Ghirlandaio developed what Fischer calls "an almost pedantic system", the basis of the system was derived from artists working much earlier in the century, but who may have used the procedure to very different ends.²⁴ In addition, such comment does not take into account the possibility that hatching technique was continued within the Renaissance

²⁰ See Cadogan, 1984, 159-172, for discussion on Ghirlandaio's method of composition.

²¹ Davies discusses the whereabouts of various of these drawings. Davies, 142-143. See Cadogan, ed. Cropper, for discussion on Ghirlandaio's use of cartoons; Vasari, trans. Gaunt, 72-75 for details of the frescoes.

²² "Cross-hatching is not a technique used in any of the Florentine workshops of the mid-quattrocento, and it seems to have been introduced by Ghirlandaio at the beginning of the last quarter of the century." Ames-Lewis, *Art Bulletin*, 1981, 50.

²³ Fischer, ed. Cropper, 247. In Fischer's defence, he does admit that, within his paper, he has been unable to go back as far as he might like to have liked, "It has not been possible for me to trace the use of cross-hatching back any further. Thus the technique probably originated in Siena as a method for giving bulk to figure drawing". *Ibid.*, 253.

workshop and that the plotting of such activity has been made almost impossible due to the dearth of suitable drawings.

The system of parallel-hatching was not sufficiently versatile to meet the needs of artists who wished to create smooth areas of surface modelling or three-dimensionality in their drawings. Jacopo della Quercia has already been cited as an artist who used a system of cross-hatching to create three-dimensional figure types, notably in the *Study for the Fonte Gaia (I)*. However, Ghirlandaio uses the method for quite another purpose, that of affording him a means of extending the tonal range and creating surface modelling, giving figures more weight, and drapery more texture. His pupil Michelangelo extended the system to create three-dimensional figures in a sculptural context. However, Michelangelo was not, in essence, developing a system created by his master, but had revisited one of his models, Jacopo della Quercia, and had developed that system in parallel with that of Ghirlandaio, in terms of its use as a means of creating three-dimensional figures. It may well have been Ghirlandaio himself who encouraged Michelangelo in his study of the Sienese master. Ghirlandaio used the system, in a somewhat edited form to give his drawings a sculpted feel.²⁵

Ghirlandaio used cross-hatching exclusively in drawings for single-figure studies. One such study is the *Standing Figure of a Lady*, currently in the British Museum (43). The figure was identified by Bernard Berenson as the

²⁴ Ibid., 246.

²⁵ Ghirlandaio is not an artist working in isolation but builds on the new approaches to the more complex art of the mid-century. In Fra Filippo Lippi's work, for example, is evidence of a new sense of the interplay of light and space, taking place, as it did, against a

study for the figure in the fresco *Birth of the Baptist* in Santa Maria Novella, although the drawing may have been used as the basis for more than one figure.²⁶ In the drawing, Ghirlandaio uses cross-hatching in degrees of intensity to create areas of differing depth of shadow within a strengthened outline which sets the shape of the figure. The outline of the figure is very definite in terms of the angular frame of the figure's gown, as such establishing a feeling of confidence in the viewer and an emphatic approach in the handling of such figure types.

The area of drapery to the figure's right is most heavily hatched in the fold from the figure's waist to the ground. The initial vertical lines have been crossed at angles of forty-five degrees with much shorter and very much heavier strokes to create the deepest area of drapery in the drawing. Careful study of the area shows that Ghirlandaio had first used a line at an angle of 45° which runs across the material to the left of the deep crease and through the now heavily hatched fold. This parallel-hatching ran to what seems originally to have been the peak of the fold in the material with the other side of the peak shaded, again with parallel-hatching, but this time running in the opposite direction. Ghirlandaio then changes his mind and creates the very deep and darkly shaded fold by creating a very long V-shaped fold with a heavy stroke

backdrop of the work of Donatello and Desiderio da Settignano.

²⁶ Davies, Pl. XLVII, 142-143; Berenson, 1938, No. 883; Popham and Pouncey, No. 71, Pl. LXVII; Ames-Lewis, 1981, Fig. 152, 155; Royalton-Kisch, et al, No. 12, 39. The figure is a study for the central figure in the *Birth of St. John the Baptist* (see Davies, Pl. XXXVIII). Ames-Lewis points out that the drawing may have been used, with "only small adaptations" for the leader of the women at the right-hand side of the *Visitation*. Ames-Lewis, 1981, 155. This drawing and a drawing in the collection of the Duke of Devonshire at Chatsworth House *Standing Female Figure, and Slight Sketch of a Face* (Chatsworth 885, verso), are surely of the same figure in reverse, the Chatsworth sheet possibly used as the right-hand leading figure in *Birth of the Virgin*. Ames-Lewis, 1981, Figs. 155 and 156; Jaffé, No. 29 (verso), 63.

and creating depth with much heavier cross-hatching. This entire fold has been over-drawn.

The hatching becomes much lighter on the front of the material where two sections (running directly down to the floor from the line of the arm) are treated quite differently. The light folds of the material in both sections are indicated with long, thin vertical strokes which fall from the figure's waist to the floor. The angled strokes to the left portion of drapery create a sheen in the material and support the feeling of its weight, creating movement on the surface of the gown.²⁷ The treatment is similar to the three separate areas of drapery to the right of this middle section, where the angled hatching is very flat and crosses the areas as single strokes.²⁸ A similar method is used in other such studies, particularly in *Girl Pouring Water*, where the hatching is used more extensively, but where even the pitcher is hatched only for the benefit of its surface contour and not, as in the case of the pitcher held by the figure of Temperance in the *Study for the Fonte Gaia* by Jacopo della Quercia, to create a three-dimensional object.²⁹

While cross-hatching is used, in the main, to create surface contour, Ghirlandaio does show evidence of other influence within the drawing *Standing Figure of a Lady*, for there is an indication of the influence of a sculptor's technique. Under the arm of the figure there are heavier and much shorter strokes with a slight hook which serves to lead the eye around the back

²⁷ This accentuates the feeling of light from the left (at quite a low angle) which "uplights" the figure and sets this part of the material in slight shade in comparison with the white surface to the left of this area of hatching.

²⁸ The hatching is very flat particularly to the "fan" of material at the back of the gown.

of the figure.³⁰ This is also apparent in the line of strokes beneath the figure's arm which carry on along and over the folds of the gown below the elbow. These strokes also appear to be drawn with a slight curve, the line of the arm having been heavily over-drawn to create an area of shade below the line of the fore-arm, the edge of the arm itself accentuated with short, heavy, hooked strokes. The stroke down the figure's sleeve has been modelled, not with the flat stroke of the fan of material at the back of the gown, but with a curved stroke which creates a much heavier and more rounded arm shape. Thus, Ghirlandaio used hatching in a number of ways and to a number of ends, and mixed the rather flat hatching which might be linked to a feeling of two-dimensionality, with the hooked and rounded stroke of the sculptor, allowing him the freedom to imbue his figures with a three-dimensional weight.

Two drawings, both prepared for the lower tiers of the choir of Santa Maria Novella illustrate Ghirlandaio's thought process, *Birth of the Virgin* (44) relating to the lowest tier of the left wall, and *The Naming of Saint John* (45), a study for the fresco in the lowest tier of the right-hand wall of the choir.³¹ In the first of the drawings, the artist is concerned with the placement of the figures within an architectural scene. To this end, the contours of the figures and their placement and interaction with each other is the purpose of the first stage of the drawing's execution. There is little hatching and very little

²⁹ *Girl Pouring Water*: Uffizi, 289E. Ames-Lewis, 1981, Fig. 153, 152.

³⁰ These strokes are not as deliberate as those of Jacopo della Quercia, for example, but do "bend" with the line of the material, the artist very much thinking in three-dimensional terms.

³¹ *Birth of the Virgin*: Davies, Pl. XLVI, 142 (Davies mistakenly calls the plate "Naming of St. John" or the wrong plate has been included); Crowe and Cavalcasselle, No. 4, 326; Berenson, 1938, No. 878; Popham and Pouncey, No. 69, Pl. LXVIII; Ames-Lewis, *Art Bulletin*, 1981, Fig. 150, 149; Cadogan, ed. Cropper, 63. *Naming of Saint John*: Berenson, 1938, No. 884, Popham and Pouncey, No. 70, Pl. LXIX; Ames-Lewis, 1981, 152; Ames-

evidence of over-drawing, some of the characters drawn over the lines of the wall with the first lines clearly visible through drapery. Ghirlandaio evidently worked the drawing up to a level convenient to himself and did not return to it. Although the overall viewpoint of the completed fresco changed, the information in the drawing serves the artist's purpose in recording the idea and creating a working template with which to take the work on the fresco forward.³²

The Naming of Saint John is an altogether different drawing where Ghirlandaio is interested in working on the emotions of the characters, at the same time endeavouring to add modelling to the surface as a way of creating more lifelike figures. Again, the modelling is not used to create three-dimensional figures, but works within the strengthened outline which somehow flattens the characters against the background. The interaction of the principal players in the scene is what is important, but, unlike Donatello's characters in the *Massacre of the Innocents*, they are two and not three-dimensional.³³ Ghirlandaio's strengthened outline confines the figure while the outline in Donatello's work implies form by the speed of its execution born of a visual imagination which thinks and sees in relief. Ghirlandaio takes the technique of the sculptor one step forward on occasion, but steps back from any real commitment and preserves a technique that is very much in the world of two dimensions. Verrocchio, on the other hand, embodies the confidence of execution seen in the work of Donatello.

Lewis, *Art Bulletin*, 1981, Fig. 10, 53; Cadogan, ed. Cropper, 71.

Verrocchio and the “Painter-Sculptors”

Like Donatello, Verrocchio's speed in handling creates a line which cuts into the paper, pulling his figures forward of the picture plane and creating body and form by implication. In this respect Verrocchio was more successful than either Desiderio da Settignano or Antonio Rossellino. Verrocchio's *Studies of a Child*, shows the speed with which the artist worked, moving across the page and turning the paper to capture every movement of the child (46).³⁴ The standing figure to the left is one full of movement, created by the rhythm of the line and giving the illusion that the figure of the child is walking towards the onlooker. This is achieved with a sweeping line down the figure's right-hand side and following the line of the chest and stomach. The left leg, which moves ahead of the right, throws the line of the right leg back in terms of weight, and, countered by the right arm which swings up, to the left which pushes back and down, pushes the figure forward of the picture plane. This sketch contrasts with the sketch of the baby which sits and reaches up over its head. Here, the initial lines of the figure have been overworked and the sketch has therefore lost a great deal of the freshness of the previous one. Verrocchio develops this sketch by using hatching to define the body mass, particularly down the line of the figure's torso, using parallel-hatching up to the navel and cross-hatching up to the line of the chest. This is not surface modelling, as in the case of Ghirlandaio, but an attempt to cut into the figure and create areas of relief.

³² For the completed fresco, *Birth of the Virgin*, see Davies, Pl. XXIX, 111.

³³ For the completed fresco, the *Naming of Saint John*, see Davies, Pl. XXXVI, 121.

³⁴ Cruttwell, No. XIV, 71, 202 (in discussion of the so-called “Verrocchio Sketch-Book”); Berenson, 1938, No. 2783; Passavant, Nos. 98 and 99, 60; Ames-Lewis, 1981, Nos. 86 and 87, 108; Adorno, Figs. 94 and 95, 269; Butterfield, Pl. 251 (*recto*) and Pl. 13 (*verso*), 185.

Verrocchio's confidence in creating a free and fluid line is seen in his *bozzetto* for the cenotaph of Cardinal Niccolò Forteguerra.³⁵ The same adept skill in carving the figures out of the paper, as seen in the Louvre drawing, is once again to be illustrated in the *bozzetto*, where the movement of the angels, particularly the two to the right who hold the mandorla, is supported by the skill of an artist who saw clearly and was able to render with great speed and accuracy in three dimensions. Linked to this study, but by no means universally accepted as being part of the design process between the *bozzetto* and the completed tomb, the terracotta angel in the Louvre Museum in Paris underlines Verrocchio's capacity in rendering in relief, where the angel is carved out of the material with the same lightness of touch and self-assurance as the baby is "carved" out of the paper with the pen.³⁶ The layers of relief, from the shallow left leg, to the gradual and rhythmic build up of relief towards the surface, culminating in the flowing material over the figure's right leg, is one of great mastery and experience, a level of ability not yet seen in the companion angel, accepted as the work of Leonardo, where the figure movement, although of good quality, is not of the standard of the master.

³⁵ Victoria and Albert Museum, 394 × 267 mm. Pope-Hennessy, 1964, No. 140, 164-166; Butterfield, 1997, 137-154, 233-238; Rubin and Wright, No. 13, 154-155.

³⁶ There are two reliefs which depict angels, a relief where the angel faces to its left and the second which faces to its right. The left-hand angel is usually attributed to Verrocchio with the right-hand angel attributed to either the Verrocchio workshop or to Leonardo da Vinci. For discussion on the two angel studies, see Cruttwell, Pl. XXXIII (the left-hand angel as being by Verrocchio) 135-136; Valentiner, Figs. 196 and 197 (both angels by Leonardo da Vinci); Passavant, Pls. 58 and 59, 28-31, where he rejects the studies as having been part of the design process for the Forteguerra cenotaph; Seymour, 1971, Fig. 167, the left-hand angel as "attributed to Verrocchio" and Fig. 168, the right-hand angel as "attributed to Verrocchio Shop", 125-126; Pope-Hennessy, 1996, 387; Butterfield, Pl. 201, as the left-hand angel and attributed to Verrocchio and Pl. 202 as "Workshop of Verrocchio". Rubin and Wright, Nos. 14 and 15, 156 (both as Workshop of Verrocchio).

The Later Development and Application of Techniques

Just as Verrocchio shows an understanding of the work of Donatello, his work also illustrates his talents as a goldsmith. A study in the Victoria and Albert Museum, by Verrocchio, *Design for a Monument in the form of a Covered Bowl* (47) is an unusual drawing, not least for its hybrid state. In its current form, the drawing represents a scene altered from its original plan by a second artist, possibly Lorenzo di Credi, Verrocchio's pupil.³⁷ The drawing is considered a late one, probably around 1485, at the time of Verrocchio's work on the *Colleoni* monument in Venice, indeed speculation has suggested that the monument was produced for the Doge, Andrea Vendramin.³⁸ The design depicts an ornate covered bowl supported by three putti standing on a console, indicating that the completed piece was to stand against a wall.³⁹ On the top of the bowl stands the figure of Justice accompanied by two allegorical figures, holding various attributes, although these are very faint and difficult to make out.⁴⁰ The design is clearly overdrawn on two counts. Firstly, there is over-drawing in pen and wash to the figures of Justice and the two allegorical

³⁷ Ward Jackson, 26. The drawing was attributed to Leonardo da Vinci in the Woodburn sale and took on the attribution to Verrocchio, by Meder and Steinmann, in 1928 (according to a note in the Victoria and Albert's Department of Drawings); Kenneth Clark published the drawing in 1929, Vasari Society, Pl. 3, Vol. 10, suggesting an attribution to Benedetto da Maiano; Moller, 193-194; Berenson, 1938, Fig. 130, 699B (as by Lorenzo di Credi); Valentiner, 119; Passavant, Pl. 194, 60-62; Seymour, 1971, Fig. 24, 28-29; Rubin and Wright, No. 11, 146-147.

³⁸ Ward-Jackson, 26. This suggestion is made primarily on the existence of the lion in the central portion, which may be the lion of St. Mark, which would link the design to the Doge. However, the lion could be a link to the figure of Justice, one of whose attributes was the lion, although this would be a rather rare use of this attribute. Moller also points out that both the Verrocchio and the Lorenzo di Credi drawings bear the shields of the Doge, a horizontal band which would have been coloured gold, with the upper field blue and the lower, red. Moller, 194.

³⁹ Some historians have argued that the drawing is for a tomb, notably Moller, who cites the putti with garlands and the rounded form of the sarcophagus as deriving from Desiderio da Settignano's *Marsuppini* tomb. His attribution to Verrocchio is based on his work on the *Forteguerra* tomb. Interestingly Moller considers the work as being by a goldsmith, "That the author was, above all, a practising goldsmith is shown by the details of the ornaments and the elaborate construction of the urn . . ." Moller, 194.

⁴⁰ Passavant, 61, suggested that the left-hand figure holds a cornucopia and a sheaf of corn

figures, and to three of the putti, over-drawn in pen and brush. The main part of the bowl has been reworked, perhaps by a goldsmith or by someone wishing to create a piece in precious metal. From this point of view the drawing shows two artists working with two entirely different psychological intents and to two very different ends. If the design was intended as a monument, then it is clear that this is not its original state, as a sarcophagus would have been of a standard rectangular shape. Careful study of the bowl section shows that beneath the inked lines there are horizontal lines indicating a long, straight shape for the original sarcophagus. Such a sarcophagus could most certainly not have been in any other form. The change to a bowl or urn shape, which might conceivably have held ashes, would be unlikely given the Florentine ban on cremation.⁴¹

The drawing styles of the figures on top of the bowl and the bowl itself are clearly by different artists. Verrocchio's work on the three main figures shows distinct tendencies towards creating sculpted figures. The ornate and heavy drapery is built up and modelled through a deep hatching scheme, creating areas of deep shadow and building up plasticity. Much as in completed sculpture, the areas which will be lit and nearest the surface are much lighter than other areas, for example, the figure of Justice's left leg. This sculptor's highlight will be developed, to be seen much later in the highly finished drawings and sculptures of Michelangelo. Similarly, the two putti beneath, particularly that to the right, shows a desire to create on paper, a three-dimensional object, where skin and muscle tone is achieved by long, fluid lines

and that the figure to the right carries a laurel wreath.

which take the eye round the figure and advance the illusion of a chubby, substantial figure. The indication of lighting to the putto on the right helps set its left-hand upper body in darkness, further creating the illusion of three dimensions. The artist here wished to create “sculpted” figures.

The artist of the lower section has no desire to create a design in three dimensions, but one that is intended to be seen in relief. The outlines are clear and uncomplicated, the shape of the bowl, its support and the ornate crown defining the boundaries of the physical aspect of the object. Within these lines, the detail is added, firstly with very simple shapes to the beading on the various levels, and then more ornate work within the three ovals in the centre with the most detailed work towards the crown of the bowl, the artist working on a reasonably small scale. Within the mind of this artist is an object of small proportions, while within Verrocchio’s mind, he is creating smaller versions of much more sizeable figures.

In the Louvre Museum is a similar design in which the artist uses Verrocchio’s idea to further develop the over-drawn work and to create afresh an entirely new piece based on the original sketch (48).⁴² Lorenzo di Credi, Verrocchio’s pupil has been suggested as the artist responsible for the over-drawing on the Victoria and Albert drawing (a fact difficult to ascertain), and there is a strong

⁴¹ The Church considered cremation to be a pagan custom at this time. Ward-Jackson, 26.

⁴² Louvre Inv. 1788 (as Lorenzo di Credi); Berenson, 1938, No. 1788, as by Lorenzo di Credi, a “variant of my 699B”; Moller, 194, “The executor was not a great artist, but merely an experienced, practising sculptor, not unskilled as a draughtsman. . . . but he was not Credi”. Moller suggests either Giovanni di Andrea di Domenico, who was proposed by Credi for the casting of the Colleoni Monument, or Francesco di Lorenzo dell’Opera, the first witness to Verrocchio’s will, as the likely artist. Moller 194. See Moller, 193-195, for a comparison between this drawing and the Victoria and Albert drawing by Verrocchio, *Design for a Monument in the form of a Covered Bowl*.

case to link him with the highly stylised drawing in the Louvre. The drawing was in the Vasari collection and the cartouche ascribing it to Lorenzo di Credi still appears on the mount.⁴³ The design is beautifully drawn and extremely clean, suggesting that it was drawn for contract purposes.⁴⁴ The background curtain, reminiscent of Venetian monuments, is pulled back to reveal the ornate bowl, the curtain tied back to either side by two hoops, through which the material is threaded. The figure of Justice has again been used as the centrepiece, but the two accompanying figures, which can be identified as Virtues, this time stand on the bowl itself.⁴⁵ These two figures are of enormous importance when comparison is made with Verrocchio's handling of his corresponding figures on the Victoria and Albert Museum sheet. While the Verrocchio figures give the impression of being sculpted, the Lorenzo di Credi Virtues, while being built up with hatching, suggest a painter has drawn them, showing the differences in psychological intent, but also in technique and, perhaps, in experience. The hatching on the two figures shows little fluency, being very deliberate and methodical. Here, there is surface hatching, but no attempt to create the hooked stroke of Jacopo della Quercia, or to apply its refinement from the palette of Verrocchio. Therefore the figures remain flat, the artist trying to apply what he feels is technically expected, but showing little confidence in what is stylistically required.

The work to the bowl area of the composition is very shallow, particularly to the shell and the rose motif, where there is no indication of any deep cutting.

⁴³ *Lorenzo di Credi Pittore Fioren.*

⁴⁴ There is a scale to the left-hand side of the drawing: 1; 1/2; 1/4; 1/3 which shows the measurements of the intended piece.

⁴⁵ To the right of the figure of Justice is Temperance, who holds a pitcher. To the left of the

The work to the cornucopia motif to the bottom of the bowl shows highly intricate handling on a small and controlled scale by an artist with an eye for detail and consistency in his approach. There is confusion as to what the design is intended to be, but its ornateness would suggest a design for a piece by a goldsmith. Lorenzo di Credi was obviously taken by his idea (if Lorenzo di Credi is accepted as the artist), sketched over the Verrocchio design, and took great care in executing this second version, showing, at the same time, an interest in working on a small scale. Here, this artist works as a goldsmith might, concentrating on very small complex areas, calling for control and forethought.

An early sixteenth-century drawing for a Paduan piece (49) in the Victoria and Albert Museum, although more intricate than the Verrocchio study, compares stylistically in terms of detailing and motif.⁴⁶ The highly stylised drawing is of medium proportions, but it is fair to suppose that the finished article was a fairly large piece. The vase sits on a base decorated with leaves, the leaf motif being taken up again for the base section of the bowl of the vase. The mid section depicts a female figure, who blows a set of pipes and is joined, on either side, by two putti. The main figure may be Euterpe, the muse of lyric poetry and music, suggesting a domestic piece. To the outer edges of this section are two heads which look out to either side in profile. The crown of the vase is decorated with flamboyant lions to either side of a figure of a bird, possibly an owl. The handles are inverted fish, with similar heads to those of

figure of Justice is Fortitude, who leans on her attribute, the column.

⁴⁶ The drawing appeared in the catalogue for the Woodburn Sale at Christie's 4 June, 1860, probably as lot 7, "a design for a vase by Sandro Botticelli", bought for the museum". See Ward-Jackson, No. 476. Reitlinger points out that far from being a drawing by Botticelli,

the lower section. Such a drawing illustrates a design very much controlled by the confining features of the outline of the vase. Each detail is drawn with precision and very tight control, the figures of the lions, the beading around the top section, and the three figures of the central portion. This is not a freely executed sketch, but a drawing carried out by an artist whose technique is determined by his vision of the final piece in silver, the figures raised from the background in defined relief. If the Paduan piece looks forward to the sixteenth century, where drawings are of similar style and certainly where the intent is to continue to create pieces of an even more flamboyant nature, then the Verrocchio study builds on technique from much older artists of the quattrocento. Such representation may not have fundamentally changed throughout the century and well on into the age of magnificence in precious metalwork.

The early masters influenced painters and sculptors in their creation of graphic three-dimensionality. Ghirlandaio is seen to have added weight and credibility to his figure drawing style and Verrocchio to have followed on from the work of Donatello in developing confidence in the rendition of relief. This development and utilisation of the sculptor's technique is by no means isolated in the mid to late quattrocento and the work of several artists shows a new concern for and a greater concentration on the creation of figures with three-dimensional credibility. The work of Antonio Pollaiuolo is of particular interest in that it shows such concern, but also that this concern manifests itself in a

the drawing was of North Italian style, Reitlinger, No. 6, 6.

somewhat different form of drawing where the psychological make-up of the artist is apparent.

Pollaiuolo was trained as a goldsmith and engraver, working at a high level in all disciplines.⁴⁷ His interest and expertise in a number of techniques is illustrated in his engraving *Battle of the Nudes* where the return hatching technique is of the “broad manner” type, a technique more akin to the work of the Northern artists.⁴⁸ The drawing *Nude Man Seen from the Front, Side and Back* (50), of around 1486, is a study of a male figure made from three different positions.⁴⁹ The left-hand figure faces the viewer face on with the right arm held out to its right, the hand held in a fist and so showing the muscles of the forearm in tension; the left arm is held out to the side and turned to show the arm from the front, the individual fingers of the hand stretched out in tension. The middle figure is seen in its left profile. The right arm is not in view but the left arm, bent at the elbow, points down to the floor. The hand here is unfinished and merely indicated. The right-hand figure is seen from the back, the left-hand figure seeming to have turned around and repeated the first pose, although not accurately, as the feet are more firmly planted on the floor

⁴⁷ Vasari, trans. Bull, Vol. 2, 72-77.

⁴⁸ The two techniques are described by Fischer, ed. Cropper, 248: “The broad manner follows a common method of the pen draughtsman, *i.e.*, clear outline and shading in short parallel lines often with a lighter return stroke laid obliquely between the parallel lines”. See Hind, 2-3, for a fuller explanation of the two hatching systems, where Hind suggests caution in relation to “dogmatism” in assigning the two methods, on an arbitrary basis, to two distinct workshops. For *Battle of the Nudes*, see Kemp, 1981, Pl. 3, 37-38; Farago, Pl. III.5, 50-51; Rubin and Wright, No. 50, 244-247.

⁴⁹ Van Marle, XI, Fig. 235 (caption incorrectly states that the drawing is in the Uffizi); Berenson, 1938, No. 1949 (as after Antonio del Pollaiuolo); Popham and Pouncey, 138-140; Avery, 1970, Pl. 111, 143; Ames Lewis, 1981, Fig. 81, 104-106. This drawing has close links with one in the British Museum, *Three Nude Men Standing* (as after Antonio del Pollaiuolo), 1885-5-9-1614: Van Marle, XI, 370 and XVI, 282; Berenson, 1938, No. 1944B; Popham and Pouncey, Pl. CXCI, 139-140; Ames-Lewis, 1981, Fig. 82, 104-106; Rubin and Wright, No. 50, 244-246. Ames-Lewis suggests that the drawing might be called a “sculptural drawing” based on the fact that the drawing is a “sculptor’s

and the shoulder line is altered. The page also shows a sketch of a left arm held forward but fairly relaxed (drawn above the head of the central figure) and the clenched fist of a right arm (lower right). The sheet is inscribed (upper left) with the words: "This is the work of the excellent and famous Florentine painter and outstanding sculptor Antonio di Jacopo. When he depicts man look how marvellously he renders the limbs".⁵⁰

The figure is recognisable as a favourite motif in Pollaiuolo's work -- a warrior tensed for action. It is likely that the sketches were made from a live model who would move and pose as the artist directed. Given Pollaiuolo's work as a bronze sculptor, these views probably constitute his move around the body to gain understanding of the figure in the round at the modelling stage of the work. Whether this drawing shows a clear understanding of the anatomy of the body is debatable. Vasari confirms that Pollaiuolo did undertake dissections:

He understood about painting nudes in a way more modern than that of previous masters, and he dissected many bodies to view their anatomy, and he was the first to show how to seek out the muscles and so give them their proper position and form in his figures.⁵¹

However, while the artist establishes a strong contour for the bodies of figures and sets them in space as a solid mass, he indicates the muscle areas only superficially from the surface in and not from the interior muscles out, culminating in a somewhat less than convincing figure. Vasari may have been mistaken or the dissection work may have been undertaken on a very few occasions.

observation of the nude figure". Ames-Lewis, 1981, 104-106.

⁵⁰ [A]ntonii Jaco[b]i excellentissimi ac eximii florentini pictoris scultorisque prestantissimi hoc opus est./ Umquam hominum imaginem fecit/ Vide quam mirum in membra redegit.

The left-hand figure has a strong outline and is set with the weight firmly on the right foot, the left leg slightly lifting from the knee. The right arm is hatched using a long, angled line to denote the area of the under-arm in shade. The left arm is somewhat more detailed as the muscles along the full length of the arm have been tensed to indicate the position of the various muscles. Hatching is used here in an arbitrary fashion and lacks detailed concentration. This level of detail may, however, have been sufficient for Pollaiuolo's needs at the time, but would not instantly point to the natural concerns of an artist interested in the body as a three-dimensional object. Deep hatching is used to the elbow area where heavy strokes indicate an area of depth as the muscles of the fore-arm are flexed. The area of the fore-arm is picked out using a line down the muscle with shorter strokes used to depict the contour of the muscle. However, these short lines are flat, they do not bend around the area and so do not aid an understanding of the surface contour. The hatching lines to the upper arm are recognisable as the short, hooked strokes first seen in the work of Jacopo della Quercia which serve to lead the eye around the object. Here, the lines lead the eye around the upper arm behind the body, thus enhancing the feeling of rotundity. This technique is not continued in the same area of the central figure.

The hatching to the central figure is similarly quickly, but confidently applied to muscle areas on the upper arm, where a heavy, short, bent stroke is used to indicate the deep area of shade between the upper arm and the chest area. Slight indications of hatching are seen to the buttock area and down the left leg.

⁵¹ Vasari, trans. Bull, Vol. 2, 76.

The lower legs show more concentrated use of hatching. A hooked stroke is used to indicate the roundness of the back of the left leg, but the stroke is rather flatter to the same area of the inner right leg.

In the right-hand figure Pollaiuolo uses mere lines to indicate muscle areas -- as to the left shoulder-blade, where faint lines delineate the area -- and then shades them over with a zig-zag stroke. This is repeated on the right shoulder-blade and down the spine. A more varied array of strokes is used elsewhere in this figure. Areas of the figure's right arm are picked out using short, fairly heavy strokes and, in the area to the upper right arm, the stroke has been hooked to lead around the arm itself, the hook of the stroke just visible in the air beyond the arm line. The hatching to the lower right arm, however, is not quite so obviously hooked but the stroke is bent to follow the contour of the back of the flexed fore-arm.

While the drawing has none of the care and attention to detail of a drawing by Jacopo della Quercia, it is clear that Pollaiuolo was aware of techniques in the rendition of three dimensions, showing that he was able to use varied strokes to different ends. However, a more apparent understanding of and interest in the inner working of the musculature of the body might have been expected, but clearly Pollaiuolo's observations were those of a sculptor. The definition put forward by Ames-Lewis is set in context, in that this may be a "sculptural drawing" but in the sense that it need not have been produced for a piece of sculpture.

The drawing was used as an exemplar and copied by a number of artists.⁵² A drawing in the British Museum shows all three figures drawn on parchment, the right-hand side of the sheet having been cropped (51).⁵³ The figures are drawn in exactly the positions of those on the Louvre sheet. However, this sheet is a two-dimensional representation of what was considered an accomplished rendition of figures in three dimensions. As such, the copying of such a drawing might be viewed as a futile undertaking. This said, the act of copying the stroke patterns and the variance of individual strokes shows that the copyist may have been encouraged, perhaps by a superior, to follow the original scheme. The stroke is replicated with great care and attention and many subtleties that may have been lost in the copying process have been picked up. This is seen particularly to the left arm of the left-hand figure where the copyist has noted the hooked stroke around the upper arm as well as the rather flat stroke to the lower area of the arm. Similarly, in the central figure, he has copied the slightly bending stroke which picks out the muscle of the lower left leg. In the right-hand figure, the zig-zagging stroke applied over the lines of the shoulder blade and down the spine have seemingly been applied with an action similar to that of the original artist. This would suggest that within the workshops the range of strokes to be used in the rendition of three dimensions was known and apprentices encouraged to use them, thus supporting the concept that a procedure linked to the creation of sculptors' drawings was evolving and was being recognised as a distinct technique.

⁵² See the Fogg Museum, Inv. 1932.0260; Uffizi Museum, 269 *recto*. Many such drawings may be lost.

⁵³ Popham and Pouncey, No. 226, 139-140; Ames-Lewis, 1981, Pl. 82; Rubin and Wright, No. 51, 248.

While a new generation of sculptors may well have relied closely on the work of their predecessors, the work of artists like Verrocchio, Ghirlandaio and Pollaiuolo did move the boundaries forward. Their ability to think in three dimensions and to render form in such a manner is to be seen in the work of two artists who professed talent in painting and in sculpture and whose early training took place in the workshops of Verrocchio and Ghirlandaio respectively.

Although no works of Leonardo's sculpture exist, many drawings, directly related to sculpture, are available for study and show Leonardo's concern in controlling the three-dimensional object in space, for while Leonardo upholds an antithetical attitude towards sculpture, his interest in creating in three dimensions cannot be concealed. The numerous studies linked to equestrian projects show the artist's interest in being able to visually describe (initially in his own mind and then in the execution of the final piece) every subtlety of form. Although Leonardo believed that the "infinite boundaries of a figure in the round can be reduced to two half-figures", he also identified a need to draw figures from all angles and was curious enough to explore such ideas himself on a more fluid basis. A beautifully executed drawing, *Studies for a Woman's Head and Bust*, currently at Windsor (52), shows the young Leonardo plotting various positions of a model.⁵⁴ There is no evidence to suggest that Verrocchio encouraged his pupil to produce multi-viewpoint drawings of this kind, so this may be a development in drawing technique brought about by Leonardo himself, as he attempted to bring his graphic representation in line with the

⁵⁴ Berenson, 1938, No. 1167 A; R. Commissione Vinciana, 48; London, 1952, No. 22;

more physical concerns of the sculptor. The figure is drawn like a weightless object floating and moving in space and Leonardo's interest in catching its shape, as the figure "moves" before him, is evident in the delicate, calm and rhythmic strokes of the stylus. This is a preparatory study, but a final presentation drawing may have shown only one view of the subject. In the mind of the artist all the other angles of vision would be encapsulated within.

Michelangelo made several multi-viewpoint studies for the statues in the New Sacristy of San Lorenzo. In *Study for the Right Arm of Night* (53), there is a development on from the Leonardo sheet, in that Michelangelo here prepares a working drawing for the sculpture.⁵⁵ The sheet shows four angles of the arm. The first (top left), shows the bent right arm as a "rear" view, the second (top-right) shows the same angle of the arm, but this time from the "front", that is from where the viewer would see it. The lower-left sketch views the arm "straight on", the lower-right sketch shows the arm from a viewing position to the left of the statue. While physically sculpting the piece, Michelangelo would have kept these four main views in his mind, his ability to think in three dimensions, enabling him to render, both physically and in his mind's eye, a three-dimensional object, constructed from these four views, used as terms of reference.

The influence of the work of the early masters of the quattrocento is apparent in a number of instances. Much of their technique lent itself to the creation of

Heydenreich, Pl. 20; Goldscheider, Pl. 5; Clark, 1968, No. 12513, 90 (Vol. 1) and Pl. 12513 (Vol. 2); Kemp, 1981, Pl. 21, 65; Popham, 1994, No. 22.

⁵⁵ London, 1836, No. 14; London, 1842, No. 13; Berenson, 1938, No. 1548; Frey, 216, 217; Thode, 390; Popham and Wilde, 1953, No. 42; Parker, 309r; de Tolnay, 1975-1980, 213v;

drawings in support of sculpture, particularly in the manufacture of bronzes where the pieces were to be seen, not from a single viewpoint, from within a niche, but from all sides. Such a change in fashion must necessarily have encouraged sculptors to think and conceive in a new way. The manner in which Leonardo da Vinci sought to create sculpture is the subject of the next chapter.

THE EQUESTRIAN PROJECTS OF LEONARDO DA VINCI

Within the timeline of quattrocento development there are necessarily periods where drawings are sparse and others where there are a reasonable number of drawings available for study. This is reflected throughout the chapters of this thesis. While sculptors' drawings are sparse during the decades up until the 1450s, the work of artists like Desiderio da Settignano, Antonio Rossellino and Verrocchio, available in more quantity, contributes to a greater understanding of development throughout the century. With the careers of Leonardo and of Michelangelo, perhaps for the first time in this study, comes the luxury of choosing material from a specific period, given the range of material available to the modern-day historian. The next chapter highlights Leonardo's work on a number of equestrian projects. Although these projects were not executed, the drawings associated with them indicate a development in the rendering of sculptors' drawings which encapsulated past development in the craft and took such development forward towards an identifiable and distinctive style.

In his letter of introduction to Duke Ludovico Sforza, written around 1482, Leonardo da Vinci introduced himself as an artist of the widest experience:

In time of peace, I believe I can give perfect satisfaction and to the equal of any other in architecture and the composition of buildings public and private; and in guiding water from one place to another. Item. I can carry out sculpture in marble, bronze, or clay, and also I can do in painting whatever may be done, as well as any other, be who he may be. Again, the bronze horse may be taken in hand, which is to be to the immortal glory and external honour of the prince your father.¹

¹ Il Codice Atlantico di Leonardo da Vinci nella Biblioteca Ambrosiana di Milano, 391ra. Richter, Section 1340, Vol. 2, 326-327. See also Heydenreich, 64; Kemp, 1981, 78-79 and

This eloquent and confident claim to be a sculptor of some note is in direct contrast to Leonardo's disparaging attack on sculpture as being an activity in which little mental application is necessary:

You can prove that this is true because when the sculptor makes his work he consumes the marble and other stone covering in excess of the figure enclosed within by effort of his arm and by percussion, which is a highly mechanical exercise, often accompanied by great amounts of sweat composed of dust and converted into mud.²

Whether or not Leonardo is sincere in his dislike of sculpture matters little, for in his work he confesses his love of, and his fascination with, rendition in three dimensions.

A pivotal example of this interest in three-dimensional representation is to be found in the Madrid Codex 1, *Volute Gear for a Barrel Spring*, c. 1498-1500 (54).³ The *verso* of the sheet shows how a tempered spring within a barrel is linked to a volute gear to equalise the power as the spring unwinds.⁴ He indicates on the sheet that the "pinion which turns may be either columnar or pyramidal [as here]. And the device depicted above shows how the pinion is mobile on its shaft. And this shaft does not turn with its pinion, but carries it smoothly upwards".⁵ While such a study illustrates Leonardo's genius in the field of mechanics, it also shows, in its drawing style, an extension of the early hooked stroke, used as a means of leading the eye around the figure and thus

350 for a detailed bibliography of Leonardo's writings; Clark, 1988, 84; Kemp, 1989, 251-253. The Anonimo Gaddiano states that Leonardo went to Milan in his thirtieth year - 1482. His first documented commission there is dated 1483, but there is no exact date of when he went to Milan. Clark, 1988, 82.

² Farago, Chapter 36, 257.

³ The *verso* of the first page of the manuscript, consisting of 192 folios, is dated 1493. However, the flyleaf carries a memorandum of 1497. Kemp points out that most of the highly finished mechanical drawings date from the 1490's at the earliest, making this a mature drawing. Kemp, 1981, Pl. 41, 120; Kemp and Roberts, No. 116, 203-204; Popham, 1994, Fig. 1, xvi.

⁴ The regulation of the power of a spring had been a problem in the Renaissance in relation to clockwork mechanisms. Kemp and Roberts, 204.

creating a feeling of three-dimensionality. Here, Leonardo adopts a series of long, flowing, curved lines which hug the rounded surface of the barrel and take the eye around the back of the object and into the area of shadow. He uses this stroke on the upright shaft of metal, the line not flat as with parallel-hatching but drawn to curve around the cylindrical shape. Leonardo's conception of the shape and weight of this object is vital if he is to convey its credibility as a working model. The viewer must be able, as Leonardo is, to visualise the movements of the mechanism, and the ultimate actions in terms of its engineering capabilities. Such credibility would not be conveyed by an object which appeared, in a drawing, to be flat.

This use of a curved line transferred to studies for painted figures as well as to the studies of horses, most notably for the *Trivulzio Monument*. Close scrutiny of the graphic material linked to the equestrian projects indicates Leonardo's interest in creating credible forms and an ever increasing interest in applying a three-dimensional modelling technique, used, as in the later mechanical studies of the 1490s, to create weight and plasticity in a sculptural context.⁶ The groups of drawings related to the two planned equestrian monuments, in addition to the studies for the *Adoration of the Kings*, the *Adoration of the Shepherds* and the *Battle of Anghiari*, form a unique corpus of work which sees the artist's

⁵ Ibid.

⁶ Although discussion will necessarily cover many different collections, in the main, the study will concentrate on the Royal Collection at Windsor. A list of related drawings appears in Appendix Two: *The Windsor Studies*. Leonardo's equestrian studies are divided, within the Windsor catalogue, by Kenneth Clark and Carlo Pedretti, into four sections, which, between them, cover the whole of Leonardo's working life:

- a Adoration of the Shepherds and Adoration of the Kings
- b The Sforza Monument
- c The Battle of Anghiari
- d The Trivulzio Monument

This is a useful classification in providing points for dating and stylistic analysis.

development through a series of phases, from tentative early attempts at three-dimensional rendition, to later achievement of a masterly nature where early relationships between stylus and paper give way to an understanding of the effect of the chisel on marble. A close examination of work within the various projects sees such expertise build over a period of thirty years.

The Adorations

In March 1481, the monks of San Donato a Scopeto commissioned Leonardo to paint an altar-piece, generally accepted as being the Uffizi *Adoration of the Kings*.⁷ The earliest group of equestrian drawings in the Royal Collection at Windsor is considered to be for such a project in that the horses (and other related animals) are studies for placement within such a scene of veneration. However, there is doubt that the early drawings do in fact relate to one single Adoration scene and Kenneth Clark divides this group into two, the first relating to what could have been an early idea for an Adoration, such as an Adoration of the Shepherds, the second, a group of studies for the known work, *Adoration of the Kings*. This unfinished painting is currently in the Uffizi Museum in Florence:

In the Uffizi Adoration Leonardo draws the horse from memory with absolute mastery over every pose, and great power of movement. The horses in the Adoration are essentially those which Leonardo continued to draw for the rest of his life, with rounded haunches and twisted necks, providing him with his favourite interplay of curves. This difference in the type of horse is only one way of stating a general difference in conception. The Uffizi Adoration is conceived in a mood of allegory and romance. The highly strung horses, rearing and tossing their heads, help to give the whole composition the quality of a dream: and one false or awkward note of

⁷ The subject of the altar-piece for the monks of San Donato a Scopeto is not recorded. The drawings in this case, a group linked to an Adoration of the Shepherds and one linked to an Adoration of the Kings have helped focus on the possible styles of the two commissions. Clark, 1968, xxxiii.

realism would destroy both the rhythm and the image of this dream.⁸

Clark's differentiation is important in identifying the two distinct stages of work. This establishes another stage in the sequence of development in the equestrian studies from the earliest period, through the studies relating to the *Adoration of the Kings* and on into the studies for the *Sforza Monument*, which, in themselves, establish a corpus for developmental analysis.

Within the earliest groups of drawings are placed a number of studies of a fairly naive quality.⁹ Here, Leonardo is concerned with understanding the shape of various parts of the horse: the shoulder, part of the fore-leg, the hind-leg and quarters (RL 12306); hind-legs, chest and fore-legs (12307); profile of a horse feeding, two horses feeding (all four legs shown), one in rear view, the other facing the viewer, but without the head (12308); hind-quarters of the horse in outline (12311); profile of full-length horse in profile to the left

⁸ Clark, 1968, xxxiii. Clark uses the word "Adoration" to relate to the "Adoration of the Shepherds", but uses the full title, *Adoration of the Kings* when speaking of studies for the Uffizi work.

⁹ Please note for ease of reference, and to avoid confusion, the drawings will be referred to by their numbers. This group includes RL 12306, 12307, 12308, 12311, 12318, 12324, 12325. RL 12306: Seidlitz, 680; Berenson, 1938, No. 1232; Clark, 1968, RL 12306, 18; Popham, 1994, Pl. 56. 12307: Seidlitz, 651; Berenson, 1938, No. 1232; Clark, 1968, RL 12307, 19. 12308: Seidlitz, 698; Berenson, 1938, No. 1232; Clark, 1968, RL 12308, 19; Pedretti, 1984, No. 2, 34; Popham, 1994, Pl. 55. 12311: Seidlitz, 674; Berenson, 1938, No. 1232; Clark, 1968, RL 12311, 20. 12318: Seidlitz, 634; Berenson, 1938, No. 1232; Clark, 1968, RL 12318, 22; Pedretti, 1984, No. 8, 39; Kemp and Roberts, No. 92, 168-169; Popham, 1994, Pl. 61. 12324: Seidlitz, 690; Berenson, 1938, No. 1223A; Clark, 1968, RL 12324, 24; Pedretti, 1984, No. 3, 34-35; Popham, 1994, Pl. 57; Clayton, No. 6, 23-27. 12325: Seidlitz, 633; Berenson, 1938, No. 1213; Clark, 1968, RL 12325, 24-25; Pedretti, 1984, No. 4, 35; Popham, 1994, Pl. 58. Clark cites three drawings, in the Venice Academy, the Bonnat Collection at Bayonne, and the Hamburg Kunsthalle which are studies for an Adoration of the Shepherds. They are of the same style and paper. The Bonnat and the Hamburg drawings are covered with the same purple preparation as RL 12307 and 12308. Clark, 1968, xxxiii-xxxiv, for discussion on these drawings and the counter arguments in relation to the drawings, in fact, being early studies for an Adoration of the Kings. See also Pedretti, 1984, 33 for a discussion on these drawings. *Adoration of the Shepherd and Separate Study of a Shepherd*, Bayonne: Musée Bonnat; 213 × 152 mm: Berenson, 1938, No. 1010B; Popham, 1994, Pl. 39. *Madonna Adoring the Infant Christ and Other Figures*, Venice: Academy; 119 × 135 mm: Berenson, 1938, No. 1109; Popham, 1994, No. 40A. *Kneeling Youth and Putti*, Venice: Academy; 102 × 123 mm: Berenson, 1938, No. 1110; Popham,

(12318); hind-leg in profile to the left, full-length horse in profile to the right, hind-quarters with back to the viewer (12324); horse rearing to the right, full-length horse in profile to the left, hind-quarters and legs of the horse with its back to the viewer (12325).¹⁰ Three studies appear to be slightly later than the above group, RL 12312, 12315, 12316, showing respectively, the full-length sketch of a horse in profile to the right (without head), hind-quarters; hind-quarters shown in profile to the right, the leg bent giving the impression that the horse is about to jump, a horse rearing up to the right in profile (RL 12315); slight sketch of the near hind-leg in profile to the left, near hind-leg in profile, this time with the leg bent and the sketch gone over in ink, a faint sketch of a horse rearing up to the right, with a very faint indication of a rider (RL 12316).¹¹ In all these drawings, Leonardo seems interested in the general shape of the horse and shows little understanding of its internal anatomy. The general shading is fairly minimalist, with the later study, RL 12315, showing a growing interest in the movement of the horse, the neck muscles in contortion produced using varied, but very smooth strokes and the belly of the animal indicated by uniform strokes which follow the contour of its underside.¹²

The early group of drawings is differentiated from the slightly later trio of RL 12312, 12315 and 12316 in a number of ways, including a growing

1994, Pl. 40B.

¹⁰ The last sketch is difficult to see in reproduction.

¹¹ The rider is difficult to see in reproduction, but can be seen on the original drawing. RL 12312: Seidlitz, 659; Berenson, 1938, No. 1232; Clark, 1968, RL 12312, 20. 12315: Seidlitz, 85; Berenson, 1938, No. 1232; Clark, 1968, RL 12315, 21; Pedretti, 1984, No. 5, 35-36; Popham, 1994, Pl. 59. 12316: Seidlitz, 625; Clark, 1968, RL 12316, 22.

¹² Clark dates this drawing as earlier than the studies for the *Adoration of the Kings*, linking it with a series of drawings of horsemen fighting a dragon (Ashmolean Museum, Oxford and the collection of Edmund de Rothschild in Paris). However, in relation to the sequence of development in Leonardo's technique, this drawing may prove to sit slightly later, perhaps just before RL 12290, in terms of the evidence of the growing confidence in the rendition of

understanding of the internal anatomy of the animal and an approach to rendering the horse as a structure of weight and mass, using a series of hatching techniques and an identifiable range of strokes which are then used consistently throughout the sequence up to the series of drawings associated with the *Trivulzio Monument*.¹³ The horse of RL 12315 (55) is much less docile than the earlier, rather static profiles. Here, the horse is free of constraint and Leonardo is confident enough to let the movement of the animal dictate to him. This is, at first glance, in direct comparison with RL 12318 (56), where the simple profile of the horse is drawn in heavy outline, to allow the artist the chance to work on the animal's measurements and proportions. But even at this early stage, very much pre-dating the studies for the *Sforza Monument*, Leonardo is interested in the internal structure of the horse. He uses a distinct stroke in two areas, firstly down the front of the horse's chest, and again, on the underside of the belly. This stroke, rather like the action of drawing a spring, will be seen again throughout the later sequences. There is a similar, although very much more refined stroke in RL 12315, a drawing which must be slightly earlier than the studies for the Uffizi *Adoration*, and in which Leonardo experiments with a new pose -- that of a horse in profile.¹⁴ In this drawing, the stroke is longer and more confident, hugging the underside of the horse and used again, in the neck area, in various intensities, to create the ridges of muscles as the horse rears its

three dimensions.

¹³ RL 12312: Seidlitz, 659; Berenson, 1938, No. 1232; Clark, 1968, RL 12312, 20. 12315: Seidlitz, 85; Berenson, 1938, No. 1232; Clark, 1968, RL 12315, 21; Popham, 1994, Pl. 59. 12316: Seidlitz, 625; Clark, 1968, RL 12316, 22.

¹⁴ Leonardo grappled with similar poses to RL 12315 in a series of studies of horse-men fighting a dragon. One of these is in the Ashmolean Museum in Oxford, KP 17, which shows a horseman grappling with what appears to be a dragon, or, as Berenson puts it, "a griffin". The pose was later used in the background of the *Adoration of the Kings*. Berenson, 1938, No. 1056; Parker, KP 17, 11. There is an inscription in Richardson's handwriting on the back of the old mount, "This horse is in the Adoration of the Magij, an Unfinish'd Picture in the Great Duke's Collection"; Clark, 1968, xxxiv-xxxv; Popham,

head. Profile studies such as RL 12318, 12319 and 12286 show that Leonardo showed early interest in developing a technique in relation to rendering the internal anatomy of the horse.¹⁵

The two sets of drawings associated with the two *Adoration* projects are not separated by many years and there is a good deal of overlap.¹⁶ However, the final drawing of the early group relating to the *Adoration of the Kings*, RL 12290 (57) is one which might be considered later, if it were not such an obvious study for the standing horse on the left of the *Adoration of the Kings*.¹⁷ The study shows a horse facing the viewer head-on. Only the front view is completed with the head, shoulders and the front legs of the horse. Leonardo sets the static outline of the horse with a very heavy stroke, which constricts any feeling of movement. However, this drawing is important in illustrating the use of identifiable strokes utilised in order to create surface area which corresponds to the internal structure of the horse. The first of these is seen in area one, the dark area of shading which follows the line to the right-hand side of the neck. This is not a flat, hatched stroke, but has a return stroke on the end of it, reminiscent of the spring stroke used on RL 12318, but this time somewhat tighter and more rhythmic and following the line of muscle from the neck onto the chest area. In area two (down the right of the horse's chest, down

1994, Pl. 60B, 27.

¹⁵ RL 12319: Berenson, 1938, No. 1232; Clark, 1968, RL 12319, 22-23; Pedretti, 1984, No. 10, 40; Popham, 1994, Pl. 72, 28. RL 12286: Berenson, 1938, No. 1232; Clark, 1968, RL 12286, 11-12; Pedretti, 1984, No. 9, 39; Popham, 1994, Pl. 75, 29.

¹⁶ A drawing which provides somewhat of a transition is RL 12328, which looks back to the earlier 12324 and forward to drawings of the type associated with 12312, 12315 and 12316, described by Clark as "a transition from realism to fantasy". Clark, 1968, xxxiv. Seidlitz, 83 (*verso*); Berenson, 1938, No. 1227; Gould, Fig. 11 (detail of *recto*); Clark, 1968, RL 12328, 28; Pedretti, 1984, Nos. 26 A and B; Popham, 1994, Pls. 202 and 203.

¹⁷ Seidlitz, 622; Berenson, 1938, No. 1232; Clark, 1968, RL 12290, 12-13; Pedretti, 1984, No. 12, 40-41; Popham, 1994, Pl. 67, 27; Clayton, No. 25, 49 and 54.

toward the leg) the same stroke is drawn very much against what would be an area of muscle ridge, drawn from the top to the bottom of the area, much heavier as it goes deeper into shade. In a third area of the horse, to the top of its right shoulder/neck, is seen a second method of hatching, where a short, hooked stroke curves around a dark line, drawn to depict an area of muscle. This method will be seen consistently in later studies. The bone running down the horse's inner right leg is shaded somewhat differently, a much quicker version of the spring stroke used to run the stroke into shadow. This is clearly a horse of a different type from the earlier studies in terms of its level of refinement, but the desire to build a surface contour and to create a living structure is apparent in the studies prior to those for the *Sforza Monument*.

The Sforza Monument

Kenneth Clark's chronology of the group of drawings generally associated with the *Sforza Monument* divides the studies into three sections, differentiated in terms of time and intent. The earliest of the drawings are RL 12357 (58) and 12358 *recto* (59), which Clark cites as being from before 1490 and after 1485.¹⁸ These show an early idea for a rearing horse, one which was quickly altered. The second section of the group of drawings shows several studies from nature, mostly in silverpoint, and made in the years between 1490 and 1493.¹⁹ These show a difference in Leonardo's understanding of form and a

¹⁸ Clark, 1968, xxxvi.

¹⁹ The drawings from nature, currently in the Royal Collection at Windsor, are RL 12289, 12294, 12297, 12304, 12317, 12319, 12320, 12321. Clark feels that RL 12297 may be a copy. Clark, 1968, footnote 2, xxxvii. The Royal Library in Turin is also in the possession of a drawing of the same type, from the same period, *Studies of Horse's Legs*: silverpoint on bluish prepared paper, 150 × 200 mm, No. 15580. Berenson, 1938, No. 1092; Clark, 1968, footnote 2, xxxvii.

new purpose in his drawing technique. Volume II of the Madrid Codex records two phases in the casting of the sculpture, 1491 and 1493, and therefore confirms that drawings RL 12349, 12350 and 12351 are of an earlier date than RL 12348 and 12352.²⁰

The first reference to Leonardo's participation in the making of the bronze equestrian statue to Francesco Sforza is in 1489. The Florentine Ambassador, writing to Lorenzo de' Medici, indicates that Ludovico, Francesco's son, lacks confidence in Leonardo's talents:

Prince Ludovico is planning to erect a worthy monument to his father, and in accordance with his orders Leonardo has been asked to make a model in the form of a large horse ridden by Duke Francesco in full armour . . . although he has given the commission to Leonardo it seems he is not confident that he will succeed.²¹

It is unclear as to what this statement meant for Leonardo. The Ambassador may allude to Leonardo's ability to design the monument (which seems unlikely) or, more probably, felt that Leonardo may have difficulties in the technical medium, such a monument difficult to cast given its massive proportions.²² However, Ludovico may have underestimated the master.

Leonardo was obviously aware of the problems such a design might pose, and,

²⁰ RL 12348 shows four sketches: a furnace (red chalk over silverpoint) for casting a horse, accompanied by a note (in ink): *ferma epilata and modo dj richuochere / questo si porta fare fatto /i fornelli*; a sketch for a portion of the machinery (pen and ink); section of the mould for casting the horse (pen and ink). The casting of the horse was reaching a conclusion in 1494 and so the drawing must date from around this time. This compares with Codex Atlanticus 395 verso where the paper is identical and where there are also sketches on the casting, along with notes. Seidlitz, 610; Berenson, 1938, No. 1220A; Clark, 1968, RL 12348, 38. RL 12349, on the other hand, shows early ideas for casting, as indicated by the furnaces shown in ground plan, *dj sopra* and *dj sotto*. The lines of poetry show that Leonardo was in the process of creating ideas; as the casting date drew closer Leonardo begins to give much more detailed instruction. The fact that the drawings deal with devices for casting the horse give no indication that the model was, in fact, complete.

²¹ Kemp, 1981, 203.

²² In the same letter to Lorenzo de' Medici, the Florentine Ambassador described the monument as being of colossal proportions, with Francesco Sforza armed, "His Highness has in mind something quite outstanding" (*in superlativo grado*). Pedretti, 1984, 43.

given the vast size and weight of the statue -- three times life size and over sixty tons -- there was a need for a great deal of planning and innovative technique in order to bring the project to fruition.²³ In the second of the Madrid Codices, Leonardo outlines the procedures he intends to adopt in the manufacture of the bronze structure, "Here a record shall be kept of everything related to the bronze horse, presently under execution".²⁴ The full-scale model of the clay horse was displayed at the wedding of Bianca Maria Sforza and Maximilian but the project did not proceed due to the collapse of Ludovico's reign in Milan.²⁵ The bronze for the horse was sent by Ludovico to his father-in-law, Ercole d'Este in Ferrara on 7 November 1494 to be made into anti-French canon. So ended the great equestrian project.²⁶ Although the monument

²³ The mathematician, Luca Pacioli, described the horse as a rival to the horses of *Monte Cavallo*. Pedretti, 1984, 43. Pacioli worked with Leonardo in Milan in 1497, at the request of Ludovico Sforza. Hale, 231. It is to Pacioli that Leonardo perhaps owed his systematic study of mathematics. "Luca's presence in Milan served to encourage Leonardo to pursue far more explicit and fundamental investigations into the mathematical order which had formed the implicit basis for much of his earlier art and science". Kemp, 1981, 148.

²⁴ Kemp, 1981, 206, 157v, written 17 May, 1491. Leonardo details the creation of the full-scale model of the horse. His first stage would be the construction of a full-scale clay model, the hollow piece-mould *forma* being the "female" for the cast. The mould would then be lined with a fusible material, the depth of which would determine the amount of bronze to be used. An inner layer of fire-clay, forming the "male" for the cast would then be placed within. Once the fusible material was melted away (this was probably to be wax), the space between *male* and *female* would be filled with bronze. The drawing *Design for a Casting Hood for a Horse's Head*, Biblioteca Nacional, Madrid, II, 157r, shows the *forma* within its casting hood. See Kemp, 1981, Pl. 59, 207, for details of Leonardo's casting technique; Kemp and Roberts, No. 115, 202.

²⁵ According to Pacioli, the model measured 22 feet (7.20 m) in height from the top of the horse's head to the base. The total weight was estimated at around 200,000 pounds. Richter, Vol. 2, 1. See also Heydenreich, 65. There are differing views in relation to what was displayed at this time. Heydenreich claims that the model was shown in 1493 and was left standing where it stood in the square of the old Residence (the Palazzo Reale is now situated here). Heydenreich, 65. Richter also believes the model to have been displayed on the *Piazza del Castello* in 1493. Richter, Vol. 2, 3. Kemp holds that the clay model was displayed, having been completed 1492-1493. Kemp, 1981, 207. Pedretti contends that the clay model was not displayed, "A miniature in the Sforza Chronicle of Bartolomeo Gambagnola (Paris, Bibliothèque Nationale 3141, Ms. Ital. 372) may reflect this temporary structure in which the equestrian effigy was probably painted, as was the rest of its decoration". Pedretti, 1977, footnote 1, 10. See also Pedretti, 1984, 43. The date for the casting was set for 20 December, 1493. MS. II, f. 151 verso. Clark, 1968, lix; Pedretti, 1984, 43.

²⁶ Richter, Vol. 2, footnote 1, 3. The horse was hailed as a masterpiece and, at twenty-two feet high, eclipsed Donatello's *Gattamelata* at ten feet high and Verrocchio's *Colleoni Monument* at thirteen feet high. Heydenreich, 65. There is evidence to support the fact that

did not come to fruition, the drawings which remain indicate that such studies did figure in Leonardo's working process, both in design and conception and, for those drawings which relate to the casting methodology, in terms of instruction.

Leonardo's first thought was for a rearing horse, a decision which may have been influenced by the fact that Pollaiuolo had already prepared drawings for the project along these lines.²⁷ This resulted in two famous studies, RL 12357 and 12358 *recto*, considered to be the earliest of the series of drawings from around 1485.²⁸ RL 12357, a drawing produced a little later than those of the *Adoration of the Kings*, shows a prancing horse, supported on an unconvincing tree-trunk.²⁹ The horse sits on a low plinth, the rider facing to the viewer's right, with its right arm extended backwards and holding a baton. The reins are held by the figure's left hand, with both of the horse's fore feet seeming to be supported on the tree trunk. The figure itself has much more detail than others within the sequence, with armour to the body (particularly around the shoulders), breeches and boots. The drawing develops on from the later studies for the *Adoration of the Kings*, and while, at first glance it may not seem to be a rounded figure, close scrutiny of the original shows the use of the long, flowing lines to create surface contour, as well as the hooked stroke, most notably from

Leonardo continued to work on the monument. The novelist Matteo Bandello claims that Leonardo worked alternately on the *Last Supper* and the clay model. Kemp, 1981, 180.

²⁷ Pope-Hennessy, 1996, Pl. 193; Butterfield, Pl. 221, 167. Pollaiuolo depicts a horseman on a rearing horse which tramples a figure lying on the ground beneath, a drawing entirely similar to RL 12358 *recto*.

²⁸ Clark dates RL 12357 at around 1484 and RL 12358 *recto* at 1485. The handwriting relates to projects of around this time.

²⁹ Popp suggested that the drawing RL 12357 was a close copy of the drawing by Pollaiuolo in Munich, but also that it could have been a copy from a lost small-scale model. While the sketch does resemble a model, Clark does not agree that there is a close likeness to Pollaiuolo. Clark, 1968, 46. RL 12357: Seidlitz, No. 607; Berenson, 1938, No. 1211;

around the back of the neck of the horse and right across its side to its chest.³⁰

In addition, Leonardo highlights his favourite areas, using a deep line to create a line of bone and raising the area from the flat by using small, rounded strokes to create an undulation, much as seen in RL 12290. In the case of the study of the rider on horseback, the technique is more confident and subtle.

The second drawing, RL 12358 *recto*, creates an altered pose, with the horse and rider facing to the viewer's left, again with the arm stretched out to the right and holding a baton, the reins held with the left hand. The horse's weight is, this time, supported on the figure of a downtrodden opponent which lies under the horse's hooves, and seems to raise its right arm in defence.³¹ This is a curious drawing, given the very heavy outline which sets the pose of the horse, an outline apt to constrict movement, as seen in earlier studies. However, within the outline, Leonardo uses every version of the strokes discussed thusfar. There is the favourite touch to the back, near-side leg, of the line of bone, highlighted with small hooked strokes to create an indentation; the long flowing line which hugs the underside of the animal; the spring stroke, with its hooked return. There is evidence within the run of the sequence of drawings that the artist is growing in confidence and given that both this and the previous drawing are studies for a piece of sculpture, the artist is not only building

Clark, 1968, RL 12357r, 45-46; Pedretti, 1984, No. 18, 45-46.

³⁰ Clark suggests that the drawing may have been produced to show a patron, which might explain the detail to the rider's costume.

³¹ Seidlitz, Nos. 619 (*verso*) and 620; Berenson, 1938, No. 1214; Clark, 1968, RL 12358 (*recto*), 46; Kemp, 1981, Pl. 57, 203-204; Pedretti, 1984, No. 19 (and Colourpl. VI), 46-47; Clark, 1988, Pl. 51, 139-140; Kemp and Roberts, 1989, No. 8, 56; Popham, 1994, Pl. 68, 28; Clayton, No. 23, 49-51; Butterfield, Pl. 222, 167. The drawing is usually dated in the 1480's; Pedretti, 1984, 46; Kemp, 1989, 56; Clark, 1968, 47, a date of c. 1485 is suggested because of similarities with the horses of the *Adoration of the Kings*, while Clark points out that a date of 1489-1490 is suggested by the writing on the *verso*. Clark confirms the link with the *Sforza Monument* by comparing the notes and diagrams on water with those in

confidence in a now recognisable technique, but is increasingly drawing with the completed sculpture in mind.

Both of these designs would have been extremely difficult, if not impossible, to cast in bronze, given the need to support the considerable weight of horse and rider. Leonardo's mind may have been changed by a visit to Pavia where he saw the *Regisole*, a Roman equestrian statue, and where he made detailed studies of its form.³² The pose of the horse at Pavia is illustrated in a small fragment at Windsor, RL 12345 *recto*, in fact a fragment from the Codex Atlanticus, f. 147 r-b. (60).³³ The statue, possibly of Marcus Aurelius, stood on a pillar in the Cathedral square at Pavia until the eighteenth century. The statue is known to have been ambling and so this tiny sketch (28 × 36 mm), while based on the statue, sees Leonardo forming an idea for a new design, in terms of the final gait of the horse.³⁴

The early studies do not fully illustrate the long, rounded stroke of his mechanical studies, but in the later studies for the *Sforza Monument* of around

MS.C, c. 1490.

³² "In the one at Pavia [i.e. the Roman equestrian monument, *Il Regisole*] the movement is to be praised more than anything else. The imitation of the antique is more praiseworthy than that of the modern. . . . The trot has almost the quality of that of a free horse". C.A. 147 rb. Quoted from Kemp, 1989, 264. The *Regisole* (a corruption of the "*re Gisulf*", the name of the king of the Goths) was originally gilded and had been erected in Ravenna. Sirén, 1916, 74-75 (see also Plates facing 76 and 77); Müller-Walde, 81-116; Clark, 1968, xl; Kemp and Roberts, 56, Leonardo notes his presence in Pavia 21 June, 1490, when he travelled with the architect Francesco di Giorgio Martini.

³³ Seidlitz, No. 635; Clark, 1968, RL 12345r, 37; Pedretti, 1984, No. 20. Note the use of tiny deep strokes to denote areas of depth. Leonardo was aided in his endeavours by the close proximity of the fine stable of his patron. He made detailed drawings of two of these horses in particular, RL 12319 and 12294, where he carefully measures the horse from a variety of angles. RL 12319: Seidlitz, No. 642; Berenson, 1938, No. 1232; Clark, 1968, RL 12319, 22-23; Pedretti, 1984, No. 10, 40. 12294: Berenson, 1938, No. 1232; Clark, 1968, RL 12294, 14-15; Pedretti, 1984, No. 15, 42; Clayton, No. 26, 54.

³⁴ Sirén, 1916, 75, discusses the influence of the horse at Pavia and the resultant alterations Leonardo made to the pose of the horse.

1490, Leonardo shows how he has progressed in terms of his technique in the rendition of three-dimensional form:

The precise shading of the components, executed with curving pen strokes which hug the rounded volume, show the extent to which Leonardo had abandoned, shortly before 1500, an almost exclusive reliance upon parallel hatching in straight lines.³⁵

RL 12321 (61) and RL 12294 (62) are studies for the *Sforza Monument* from the second period of drawings, that of the formal studies from nature. RL 12321 is a silverpoint study which, in comparison with earlier studies linked to the *Adoration of the Kings*, such as RL 12290, shows the extent to which Leonardo has developed, “Where in the earlier drawing the modelling was brilliantly suggested or glossed over, in the latter it is fully and learnedly set down”.³⁶ The drawing causes problems in terms of determining the completed work for which it was prepared. Clark links the earlier drawing (RL 12290) to the Uffizi *Adoration of the Kings* (where a horse faces the viewer to the left of the composition), but tempers his opinion in that this study seems much bolder and freer than the studies usually associated with the work.³⁷ Clark dates the study at around 1481-1482. Carlo Pedretti is less convinced by an early dating for RL 12290, feeling that this is a study of the proportions of the horse for the *Sforza Monument* and as such is part of a sequence, with RL 12321, the next in

³⁵ Martin Kemp, in his introduction to Popham, 1994, xvi.

³⁶ Clark, 1968, 23. RL 12321: Berenson, 1938, No. 1223; Clark, 1968, RL 12321, 22-23; Ames-Lewis, 1981, Pl. 88, 109-110; Pedretti, 1984, No. 13, 41-42; Kemp and Roberts, 1989, No. 40, 99; Popham, 1994, Pl. 77, 28; Pope-Hennessy, 1996, Pl. 194, 212.

³⁷ “The drawing on 1290 on the other hand is so mature, and so similar to the studies for the *Sforza monument* (12321 etc.) that it would be easy to date it after 1482, were it not almost certainly a study for one of the horses on the left of the *Adoration*”. Clark, 1968, xxxv. See also footnote 5: “I think it possible (1966) that this may be one of the first studies for the *Sforza Monument*, but leave this sentence as written as I am still in doubt”. Clark, 1968, xxxv.

order.³⁸ Pedretti goes on to describe what he takes as the next drawing in sequence, RL 12321, as being of “a more sculptural quality and glossier in the density of its shading, as if the anatomy were better understood”. This is the crux of the matter.

RL 12321 is a drawing which shows a much greater understanding of the ability to create, by careful shading and by the strength of the outline, a three-dimensional object, a vision of the sculpture on paper. There are two main studies on the sheet, the upper left study, showing a full length horse in profile and the lower right study which shows the same view of the horse as RL 12290. As with the work of Donatello and Verrocchio, the outline “carves” an object out of the paper, giving rotundity to the lines of the horse and to its mass. The full-length portrait of the horse depicts a horse in movement, as the animal moves forward with its back left leg (the front right leg is not drawn in), the weight of the rear of the body moving onto the front right shoulder. The musculature around the neck of the horse is achieved by a system of lines of shading which moves from the heavy strokes, to show the major folds of skin, to the lighter strokes at the top of the shoulder, achieved by drawing the line up from beneath the chin and so seeming to tighten the skin in this area. The hooked stroke can be seen clearly in several areas, particularly the back end of the horse where the stroke hooks under the tail and around to the back of the horse. The spring stroke is still visible, but is developing into a much finer and tighter line, seen particularly around the mane of the horse. The long, flowing line is used to smooth out the area around the belly of the horse, creating

³⁸ “it is certainly a study for the Sforza horse, dateable c. 1490.” Pedretti, 1984, 41.

convincing weight and mass. The underside of the horse has been drawn in by an artist who understands the sculptural make-up of the object, but can see it so convincingly in three dimensions that, with a heavier line to the further side of the belly, he is also able to convince the viewer of the bulk of the horse. The hatching to the underside of the horse is not casually applied but hugs the contour of the horse going from the right flank, across the bulge of the abdomen and underneath the body to be continued on the other side. This hatching is used, in a similar manner, around the inside of the horse's back leg, where it is used to create the feeling of weight in motion.

The second sketch on this sheet exemplifies the differences in Leonardo's technique between this and the earlier study, RL 12290. Here, the same view of the horse appears (without the head) but this time the horse is not static, but lifts its left leg slightly, having seemingly just moved forward on the right leg. The contour of the leg in the earlier study seems to have been overdrawn and is rather tentative. Here, however, the contour of the leg is established with much more confidence and understanding of its construction. The very small areas of shading are placed in vital position, with the familiar sculptor's cut to be seen in the heavy stroke applied around the fetlock, just above the right hoof. The shading around the neck and chest of the horse is, like the companion study on the sheet, made up of long strokes which subtly hook around the area to the left of the major neck muscle and around to the side of the horse, while the hatching which depicts this major muscle runs in the opposite direction, curling out from behind the bulk of the muscle to the left and moving left to right to

follow the contour of the muscular bulk to the front of the body. Here is where Leonardo illustrates how “learnedly” he is able to lay down the stroke.

This technique is also illustrated in RL 12294.³⁹ The horse belonged to Galeazzo and so must be a study for the *Sforza Monument*.⁴⁰ Although a drawing produced for the sake of working on proportions, Leonardo uses a hatching technique, to denote the various areas of bone and muscle, as a way of creating for himself, the internal anatomy of the pastern, knee and fetlock. Again, Leonardo uses the short stroke to show slight areas of indentation, as to the top of the knee; slightly longer hatching to show the muscle to the underside of the knee; further down the knee where a longer stroke diminishes to nothing to show the muscle at the angle of the bend of the knee; a short, well-spaced hatching line to run a strand of bone down the side of the fetlock.

The Battle of Anghiari

The drawings for the *Sforza Monument* illustrate a growing confidence and freedom in Leonardo’s work and the development of a method where a number of stroke patterns and hatching techniques become apparent. The next planned sculpture, the *Trivulzio Monument*, the designs for which were executed between 1508 and 1511, are of a somewhat different nature, a freer, more violent exploitation, where the horse is no longer a placid and controlled subject, but is unrestrained in the mind of the artist. This is not a sudden change in direction for Leonardo, but a facet of his work brought on by the design of his third equestrian work, the *Battle of Anghiari*, a commission he received in

³⁹ See above, footnote 32, 219.

1503 as a pendant to Michelangelo's *Battle of Cascina* in the Council Chamber of the Republic.⁴¹ The commission is important in a discussion of Leonardo's talents as a sculptural draughtsman, in that it comes between his potentially finest sculptural works and offers him an opportunity to develop and experiment with the many forms of the horse in motion he had encountered in the twenty years since the *Adoration*. The story of the battle, so vivid in Leonardo's mind, must necessarily have driven his conception of the finished composition. Osvald Sirén captures the spirit in which Leonardo undertakes these studies:

Waiving the technical difficulties of bronze-casting on a large scale with the methods of the time, it will be clear from a study of the drawings for the two equestrian statues taken in connection with those for the *Battle of Anghiari* of a later date, that Leonardo was fascinated with the problem of a plastic representation of equine movement as a type of animal strength and grace, under discipline, yet with a dramatic contrast to the human will of the rider.⁴²

The many years that, by now, Leonardo had spent in the study of the horse, manifested themselves in a series of drawings which grew from the studies for the *Sforza Monument* and for the *Adoration*, but which, in many ways, surpassed them.

The drawings linked to the project for the *Battle of Anghiari* were catalogued in chronological order by Clark, citing the drawings RL 12334-12337 as being of a first period; drawings RL 12328-12330 as those linked to the "lees of Leonardo's imagination after he had poured it into the Battle of Anghiari"; the

⁴⁰ Above the drawing is written *Ciciliano dj meser Galeazo*.

⁴¹ See Richter, Section 669, Vol. 1, 381-382, for Leonardo's account of the story of the scene. The only part completed by Leonardo *The Fight for the Standard* was painted over by Vasari in the 1560s. See Kemp, 1981, Fig. 24, 234-240 for the *Main Elements in the Pictorial and Sculptural Decoration of the Sala del Consiglio*; Newton and Spencer on the location of Leonardo's *Battle of Anghiari*, passim; Clark, 1988, 192-200; Kemp and Roberts, Fig. 32, for Peter Paul Rubens *Copy of Leonardo's Battle of Anghiari*, 39.

drawings RL 12331 of around 1507 and 12332 of around 1511, the “nightmare fantasy”.⁴³ The drawings are a link between those for the *Trivulzio Monument* in terms of constituting a change in attitude for Leonardo, the lessons learned in the studies for the *Sforza Monument* transformed by a desire to set the horse in a different context.

RL 12334 (63) shows a horse which rears on its hind legs and stretches its neck round to its left in a violent motion.⁴⁴ The technique used looks back to some of the later studies for the *Sforza Monument* but is also reminiscent of the shape and form of the horses for the *Trivulzio Monument*, in the wide sweep of the hind quarters and the pose and stretch of the legs. The neck muscles are created using a long, angled hatching line which follows the flow of the rippling of the muscles in contortion and so the line undulates, creating a feeling of power in the movement of the horse. This is in contrast to, but also builds on, the technique used in RL 12321, where the neck muscles are imposed, from outwith the frame, by a series of areas of hatching of different depths. Here, much more than in RL 12321, the inner movements of the horse dictate the line of hatching from within the frame of the animal. A similar pose is used in RL 12336, but this time the violence of the movement has somehow overtaken the composition.⁴⁵

⁴² Sirén, 1916, 77.

⁴³ Clark, 1968, xxxviii.

⁴⁴ Seidlitz, 637; Berenson, 1938, No. 1228A; Clark, 1968, RL 12334, 31; Popham, 1994, Pl. 84A, 29.

⁴⁵ Seidlitz, 86; Berenson, 1938, No. 1228A; Clark, 1968, RL 12336, 31-32; Pedretti, 1984, No. 24 A and B, 52; Popham, 1994, Pl. 84B, 29.

Leonardo's technique of bringing out the movement and plasticity of the horse from within the frame shows his growing interest and understanding of the effect of the underlying features of the musculature of the animal on the surface of its skin, in the case of the drawing, on its surface contours. RL 12303, of around 1510-11, where he experiments on the hind quarters of the horse, follows his own instructions to others:

Indicate which are the muscles, and which the tendons, which become prominent or retreat in the different movements of each limb; or which do neither [but are passive]. And remember that these indications of actions are of the first importance and necessity in any painter or sculptor who professes to be a master, &c.⁴⁶

The horses of the second period, while still in sketch form, return to a more controlled state, with the hugging stroke used again -- this time spaced more widely and used much more liberally -- not to create rotundity, but to emphasise the mass that the artist has created by the weight and plasticity of the original outline. This can be seen in RL 12328 *verso* in the pair of horses near the top of the page (64).⁴⁷ The horse nearest to the viewer has the customary lines from the belly and around to the back of the horse, but now, even more than in past studies, the line stretches across the flesh of an already three-dimensional form. The drawings of this period are of a different type. The form is first created in the mind of the artist who then indicates that form, economically, for the purposes of reference. There is no need for a variety of strokes, the spring stroke almost disappearing in this period. Having built such confidence, Leonardo is content simply to indicate and emphasise key areas by the use of a hatching technique which now grows from the initial establishment

⁴⁶ Richter, 1970, Section 362, Vol. 1, 261. RL 12303: Seidlitz, 621; Berenson, 1938, No. 1232; Clark, 1968, RL 12303, 17; Pedretti, 1984, No. 43, 67; Kemp and Roberts, No. 41, 100.

⁴⁷ Seidlitz, 83 *verso*; Berenson, 1938, No. 1227; Goldscheider, 1959, Pl. VIII (a detail of

of three-dimensional form in the mind of the artist, by way of line, and is not now used to create that form as in earlier drawings.

The final drawing in the sequence, RL 12331, of around 1511 is one of great intensity and imagination (65).⁴⁸ The date of the drawing has been widely discussed, but Clark bases his late dating on the technique used on the sheet, “The shading is done with thick strokes following the form, and, in the background, horizontal strokes, rather slow and deliberate. Moreover the rotund type of horse, with its heavy quarters and twisting neck, is not that of the early studies”.⁴⁹ Given the developmental context in which such a drawing has been placed, it seems difficult to apply an early date.⁵⁰ The drawing for the next equestrian project, while more controlled in relation to the subject matter, builds on the technique and freedom illustrated in the studies for the *Battle of Anghiari*.

The Trivulzio Monument

The commission for the monument to Giovanni Giacomo Trivulzio is not mentioned by Vasari and, for many years, early historians ignored the possibility of its existence. Clark’s catalogue of the Windsor collection clarified much of the confusion and mystery surrounding the assignation of drawings to particular projects such as the *Adoration* and the *Sforza Monument* and, in relation to Leonardo’s personal evolution, created a smooth path of

recto); Clark, 1968, RL 12328, 27-28; Popham, 1994, Pls. 202 and 203.

⁴⁸ Seidlitz, 63; Lessing, 225; Berenson, 1938, No. 1228; Clark, 1968, RL 12331, 29-30; Pedretti, 1984, No. 50, 74-75; Kemp and Roberts, 1989, No. 72, 144-145; Popham, 1994, Pl. 86.

⁴⁹ Clark, 1968, 29.

⁵⁰ See Clark’s catalogue entry for RL 12331 for a detailed discussion on the range of dates

progression on which modern historians could base further work. While documentary evidence is sparse, one document does exist which gives detailed and precise information, so elaborate in its detail, that it surpasses the many differing accounts available in relation to the *Sforza Monument*. Leonardo's specifications for the statue are detailed in the Codex Atlanticus (179 verso) under the heading *Sepulcro di Messer Giovanni Jacomo da Treuulzo*.⁵¹ The specification of around thirty-five separate items contains only five which relate to the horse and rider (the cost of the metal for inside the model; costs to make the model in clay and then in wax; costs of labourers who will polish the piece when it is cast), the others relate to the intricately detailed pedestal (4 braccia long, 2 braccia and 2 inches wide and 9 inches thick) and estimates for columns, capitals, bases, architraves, cornices and eight figures which are to adorn the base of the statue. All known drawings for the monument are in the Royal Collection at Windsor. Clark groups the drawings as being between 1508 and 1511, with RL 12353 (66) and RL 12355 (67) the earliest of the series.⁵²

RL 12355 shows a development on from those studies for the *Battle of Anghiari* in terms of the use of an identifiable technique.⁵³ This is a further

applied to the drawing. Clark, 1968, 29-30.

⁵¹ Richter, 1970, Section 725, Vol. 2, 9-11. See also Clark, 1968, xxxix.

⁵² RL 12353 and 12355 are early designs with RL 12343 and 12356 illustrating an idea for a more medieval horse, closer to Donatello's *Gattamelata*. A period of study from nature is exemplified in studies RL 12291, 12292, 12293, 12300, 12303, 12309, 12313, 12314, 12323. The final series contains the drawings RL 12359, 12344, 12342, 12360, 12354. These Clark puts in what he feels to be chronological order. RL 12353 and 12355 are of the same paper type and the paper shows that the two may originally have been joined together. Pedretti, 1984, 63. While the characteristics of RL 12353 and 12355 point to the end of Leonardo's second Milanese period, Pedretti narrows down the date of 12355 to 1509, linking the sketch with an equestrian group on RL 12658 *recto* which Leonardo dates, giving the exact point at which he finally solved the geometric problems on the sheet, "22 hours on a Sunday, 30th April, 1509". Clark, 1968, RL 12658 and 19145, 148; Pedretti, 1984, 63.

⁵³ Seidlitz, 606; Berenson, 1938, No. 1212; Clark, 1968, RL 12355, 43-44; Pedretti, 1984, No.

example of the “rotund type of horse” whose incised line lessens the need for the complicated and varied hatching systems of the Sforza studies. There are four sketches on the sheet. The upper middle sketch shows the rider, on horseback, in profile to the right, the horse rearing up on its hind legs, its head turned to look at the viewer. Two areas of surface detailing are indicated but the same stroke is applied in both cases. Firstly, the widely spaced and somewhat irregular line predominates in the area of the belly of the horse. The hooked stroke, applied previously to convince both artist and viewer of the three-dimensional aspects of the form, gives way to a curved stroke which stretches around flesh of the horse, following the mass of muscle in this area. Similarly, around the neck of the horse there is no longer a need to hook the stroke (as in the same area of the horse in profile in RL 12321), it is enough to curve the stroke around an area already in three-dimensions within the mind of the artist.

The final four drawings in the long sequence of equestrian studies -- RL 12344, 12342, 12360 and 12354 -- exemplify the final stage of development. There are undoubtedly question marks as to whether these drawings were in fact planned for the *Trivulzio Monument*. Clark concedes that the drawings do form a sequence, RL 12344 linked to 12359 and 12360 by the style of the horse and naked rider on the *verso*, and RL 12342 associated with RL 12344, 12359 and 12360 by style and paper texture. Pedretti is clear in attributing RL 12344 and 12342 to the *Trivulzio Monument*, but feels that RL 12360 does not sit quite so comfortably within the sequence, the “sculptural compactness” perhaps

35, 63; Clark, 1988, Pl. 100, 221; Popham, 1994, Pl. 91, 30; Clayton, No. 64, 117.

pointing to the creation of wax models to be made into bronze statuettes.⁵⁴

Martin Clayton, writing in 1996, believes that RL 12342, 12344, 12360 are not part of the study for the *Trivulzio Monument* but, in fact, are linked to the design for the palace of Romorantin.⁵⁵ This theory is discussed later.⁵⁶

RL 12344 (*recto* and *verso*) clearly links to RL 12343 and others, but this is a study of a different kind (68).⁵⁷ The horse in profile to the right of the *recto* in the upper area of the sheet is of a familiar type. The long hatching line, used so frequently, is clearly seen around the belly area of the animal, the lines more carefully drawn than in studies such as RL 12343. The stroke is used again around the chest area and on the shoulders of the horse, the muscular structure of the body quite apparent. Leonardo exploits the chalk medium to blur the edges of the outline and soften the contour. The movement in this animal is minimal, save for the movement of the legs and the change in weight distribution. The horse on the lower right of the *recto* is no longer tied to a convention that might be labelled “classical” or “medieval”, but rather is the epitome of a free moving and naturalistic animal. The drawing was first executed in chalk and then gone over in ink. This move to the use of chalk, so prevalent in the later studies, provided the artist with a softer medium with which to render, with more subtlety, the internal movements of the body. The horse here, no longer set in a controlled pose, is entirely free and natural in its desire to walk away from the viewer. This horse reflects the supreme

⁵⁴ Pedretti, 1984, 68.

⁵⁵ RL 12292 has, on its *verso*, a black chalk perspective sketch of a square palace with four towers. This is close to a design for the palace, C.A. f. 76v-b. Clayton, 141.

⁵⁶ See below, 251-252.

⁵⁷ Seidlitz, 627 and 628; Berenson, 1938, No. 1222; Clark, 1968, RL 12344, 36; Pedretti, 1984, No. 41 A and B; Popham, 1994, Pls. 98 and 99.

confidence of the artist. The hatching lines are still visible to the hind quarters, but here the hatching is used to accentuate and add texture to a three-dimensional object, not, in itself, to create its three-dimensionality. There is similar use of chalk in RL 12342, used this time on an animal set in a tight pose but somewhat less restrained than the upper study of RL 12344 *recto*.⁵⁸ The chalk delineates the areas of hatching in long fluid lines to carefully build up areas of mass, the textures produced by the chalk itself mimicking the texture left on the marble by the sculptor's tools.⁵⁹

A similar horse appears again on the top of sheet RL 12360, but this time its surface texture is much grainier than its companion (69).⁶⁰ The study of horse and rider in the middle of the sheet (the largest sketch) shows a supreme confidence in its handling. The three-dimensional quality of the composition is evident in the breadth and weight of the front of the horse, the two fore-legs squaring off the body and setting the balance of the composition. Leonardo still uses the fluid line of hatching, particularly around the horse's neck, as in other compositions, following the tension and movements of the muscles as the horse rears up on its back legs, but exploits the texture of the chalk and the grain of the paper to create a roughness in the feel which is closer to that of stone. It is interesting to note that in the composition to the lower left, where a number of components are brought into play, in terms of rider, sword, costume, and the

⁵⁸ RL 12342: Berenson, 1938, No. 1220; Clark, 1968, RL 12342, 35-36; Pedretti, 1984, No. 39, 66; Popham, 1994, Pl. 100, 31; Clayton, No. 82.

⁵⁹ The texture of the paper, which is of a medium coarse grain, makes it difficult to differentiate the lines of the chalk clearly. Leonardo has rather used the paper to contribute to the feeling of roughness which would be apparent on marble, either intentionally, or more likely, subconsciously.

⁶⁰ Seidlitz, 632; Berenson, 1938, No. 1216; Clark, 1968, RL 12360, 47-48; Pedretti, 1984, No. 44, 68; Clark, 1988, Pl. 102, 224; Popham, 1994, Pl. 101, 31.

balance of the horse's fore-leg on the pitcher, that the lines are more clearly seen and more carefully drawn, the artist reverting to the application of an established technique to control the elements of the arrangement.⁶¹ The sense of rhythm and consistency shows a reconciliation in Leonardo's journey to understand the inner workings of the horse in movement.

The final drawing of the sequence, RL 12354 (70), is in stark contrast to those studies of proportion which began the discussion, "by far the latest of that series which has come down to us".⁶² There is strong disagreement as to whether or not this drawing is linked to the *Trivulzio Monument*. Clark describes the drawing as "Study for an equestrian monument" and "perhaps connected with the drawings for the Trivulzio Monument".⁶³ Pedretti feels there is "no final proof that it refers to the Trivulzio Monument", and that "it could even date from Leonardo's French period, after 1517".⁶⁴ Pedretti's assertion that this drawing may relate to Leonardo's work in France supports Clayton's claim that this drawing, along with several others, was part of a series devoted to the design for the palace of Romorantin.⁶⁵ Four drawings, RL 12342, 12344, 12360, 12341 all have French watermarks, as do seven other detail studies.⁶⁶ Similarities in the paper type, where the sheet is tinted on one

⁶¹ Pedretti points to the altered composition here in that the drawing is no longer in the style of a sepulchre, but has become a design for a fountain, the water from the pitcher falling into a very faintly indicated receptacle.

⁶² Clark, 1968, 43. RL 12354: Seidlitz, 609; Berenson, 1938, No. 1215; Clark, 1968, RL 12354, 43; Pedretti, 1984, No. 45, 69; Popham, 1994, Pl. 102, 31.

⁶³ Clark, 1968, 43.

⁶⁴ Pedretti, 1984, 69.

⁶⁵ Clayton, 141- 142. See also Pedretti, 1972 for background to the project.

⁶⁶ Recent conservation work on the drawings at Windsor revealed a number of French watermarks, once the drawings were lifted from their mounts. See Clayton, 140-141 for a full list of these marks. Only some of the marks were visible at the time of Clark and Pedretti's catalogue of 1968. The watermark on RL 12342 shows a bunch of grapes (cut) which is close to Briquet, 13042; 12344 shows a Catherine wheel surmounted by three

side with a buff wash before being drawn over with chalk, appear in the detailed studies. While watermarks give no secure indication of where a drawing might have been executed, there was no transalpine trade at this time, despite the French occupation of northern Italy, and there would seem little point in transporting large amounts of paper over the Alps when it was in plentiful supply in Italy. While Leonardo may have had access to one or two papers from France, it seems improbable that he had access to such a wide range, unless he was domiciled in France at the time. Given that the Catherine wheel watermark variants are synonymous with the Loire Valley, more work clearly has to be undertaken to fully research this matter.⁶⁷

Whether for a French or Italian project, RL 12354 is a depiction of sculpted form and identifiable as such. There is no sign of any hatching lines for these have now become as shading on the surface of marble or stone. Leonardo has moved psychologically from feeling he has to denote areas of hatching technically, to feeling, through the more sensuous medium of chalk, where the areas of surface modelling should be. "It is best not to regard this drawing as one of the Trivulzio series, but as Leonardo's final word on a problem which had interested him all his life."⁶⁸

flowers (close to Briquet 13367 and 13372); 12360, as 12342, probably two parts of the same sheet; 12341 has an orb (close to Briquet's 2960). Clark notes the use of the St. Catherine's Wheel mark, bladed and surmounted by a flower on RL 12344 (Briquet 13367-9). No mention is made of any mark on 12342, 12360 or 12341; on RL 12354, according to Clark, "perhaps the faint marks in the middle of the arch are the Catherine-wheel watermark".

⁶⁷ See Clayton, 140-142, for further discussion.

⁶⁸ Clark, 1968, 43.

Leonardo develops a technique that grows, and is refined, in tandem with his growing appreciation of three-dimensional form. The initial spring stroke of RL 12318 grows in refinement to appear as a stroke which hugs the contours in RL 12315, to be joined by the favourite contour line with small heavy hooked strokes, used particularly to shade areas of bone in deeper undulations, in RL 12290. These strokes are cultivated throughout the series linked to the *Sforza Monument*, becoming more fluid and rhythmical, as they create surface contour, to be developed in, for example, RL 12321 and 12294, as hatching techniques which are dictated from within the frame of the horse.

Within the *Battle of Anghiari* series, the incised outline establishes the bulk of the animal as the artist becomes confident with his psychological view of the plasticity of the form of the horse, the hatching now used to enhance particular areas of the musculature. It is perhaps during the sequence of studies associated with the *Trivulzio Monument* that all the elements of his technical vocabulary come together, at a stage when the spring and hooked strokes are used at their most eloquent. The final sequence takes a logical step in the psychological growth of the artist by applying the hatching technique within his mind to what would become a sculpted surface. The psychological starting point for Leonardo's rival Michelangelo may have come somewhat earlier.

MICHELANGELO AND THE SCULPTOR'S PSYCHOLOGY

Michelangelo's designs of the late quattrocento and early cinquecento constitute an inestimable contribution to the corpus of quattrocento sculptors' drawings. Michelangelo's work as a draughtsman can be viewed as a chronicle of all that had gone before him within the corpus of work under consideration. In this respect, Michelangelo brings about a cadence to quattrocento sculptural draughtsmanship. While many historians have probed the matters of the authenticity and dating of Michelangelo's drawings, an analysis of how and why he drew as he did is still far from complete. Similarly, Michelangelo's development as a sculptor has not been set against a backdrop of the drawing legacy left to him by his predecessors. His developing sculptural confidence reflected a similar growth in his technical grasp of the graphic medium. In the context of this thesis, Michelangelo brings the development of the sculptor's drawing to a conclusion and defines that development in a style which reflects the sculptor's true intentions.

Vasari confirmed Michelangelo's talent for storing information and for recalling techniques for use in his own work:

Michelangelo enjoyed so profound and retentive a memory that he could accurately recall the works of others after he had seen them and use them for his own purposes so skilfully that scarcely anyone ever remarked it. Nor has he ever repeated himself in his own work, because he remembered everything he did.¹

¹ Vasari, trans. Bull, 425.

Whatever the true scope of his early training, it seems evident that much of Michelangelo's youth was spent in studying and becoming aware of the work of others. The *Madonna of the Steps*, hailed by Vasari as being "after the style of Donatello . . . save that it possesses more grace and design", shows the young artist paying homage to the early quattrocento master's work, but using the work to help the development of his own techniques.² While Donatello is a source of inspiration, the composition also owes much to the Madonna and Child arrangements favoured by Desiderio da Settignano, particularly the *Virgin and Child* (Victoria and Albert Museum, London) and the *Panciatichi Madonna* (Bargello, Florence).³ However, Michelangelo did not simply imitate these forms to the letter (much as an apprentice might have been encouraged to do at the beginning of the century) but rather gleaned important technical lessons from them to aid his own evolution as a sculptor. This method is reflected in his drawing work, where he similarly studied the work of others and used what he found of interest to move forward his own techniques. In this, Michelangelo reflects a triumph for those sculptors who sought to move out of the restrictive convention of the modelbook tradition to seek new and expressive methods of graphic representation and to develop a methodology to suit their own needs. The work of Michelangelo reflects the culmination of the natural process -- evidenced throughout the century -- through which sculptors succeeded in establishing a method for rendering in three dimensions.

² Ibid., 331.

³ *Virgin and Child*: de Tolnay, 1943-1960, Pl. 37, 129-131; Pope-Hennessy, 1964, Fig. 135, No. 114, 138-140; Bode, 1969. *Panciatichi Madonna*: See above Chapter Seven, footnote 6, 175.

Michelangelo's master, Domenico Ghirlandaio, is generally credited with the introduction of a comprehensive system of cross-hatching which enabled the artist to render volume and plasticity. It is commonly felt that this is the method to which the pupil was first introduced as part of his formal training.⁴ As discussed in Chapter Seven, Ghirlandaio looked back to the work of the early century to research new methodology in order to meet the growing needs of a more creatively conscious artistic community. In this respect, he did not invent the system of hatching he used in his drawings, but rather took on board and developed the style of hatching established by Jacopo della Quercia. Michelangelo, from all accounts a serious student of the art of drawing, may well have been content to accept the methods of his master, but it seems likely that he explored the intricacies of Jacopo della Quercia's method on his own account.

A drawing by Ghirlandaio in the Uffizi, *Two Standing Figures (71)* is an example of a study produced around the time of Michelangelo's apprenticeship.⁵ The drawing utilises the stroke patterns used by Quercia, but there are notable differences in the approach. In general, Ghirlandaio's stroke is used with much more freedom and confidence; he is clearly assured in the use of the pen and in the differentiation of a number of strokes -- the vertical base stroke with the hatching line at a forty-five degree angle; the short hooked

⁴ Vasari first details Michelangelo's apprenticeship to the Ghirlandaio brothers in 1550. The account of Michelangelo's life by Condivi of 1553 set out to pore scorn on the contribution Ghirlandaio might have made to the career of the artist, intending to present Michelangelo as an autodidact. See Bull, 1987, 10-11. Vasari replied, in 1568, by printing the agreement made between Michelangelo's father and Ghirlandaio. Vasari, trans. Bull, 327-328. See also Davies, 92-102; Berenson, 1938, I, 87; de Tolnay, 1943-1960, Vol. I, 14-15; Weinberger, 19-24, passim; Hirst, 1988, 4-5; Weil-Garris Brandt, 1992, 24-25; Cadogan, 1993; Fischer, ed. Cropper, passim; Hirst, 1994, 13-14; Hirst and Dunkerton, 83-88.

⁵ Weinberger, Pl. 3.1, 23; Ames-Lewis, 1981, Pl. 159, 157; Hirst, 1988, Pl. 5.4; Querman,

stroke, particularly around the folds of drapery; the deeper areas of more intense hatching, here, around the hem of the garment of the right-hand figure. There are also strokes which are not found in the drawings by Jacopo della Quercia -- the stroke with a long return to the principal fold to the garment of the right-hand figure and some V-strokes to the right-hand back panel of the right-hand figure. However, the stroke is rendered with much less care and concern for individual areas of the drawing than in Jacopo della Quercia's work. The lightness of the stroke and the obvious care of its application in the *Study for the Fonte Gaia (I)*, shows an artist thinking about the shape and the mass of the areas much more than in the study by Ghirlandaio. In particular, Jacopo della Quercia moves the stroke around the figures to create a three-dimensional understanding for the viewer and indicates the ultimate goal of the sculptor -- the rendering of the design in stone.

Michelangelo's early studies compare more closely with the Sienese artist and it is likely that, perhaps on the advice of Ghirlandaio, the apprentice sought to study the intricate patterns of Jacopo della Quercia's technique. Michelangelo's *Study after Giotto's Ascension of Saint John the Evangelist (26)*, generally dated around the time of his apprenticeship to Ghirlandaio, compares more closely with the drawing by Jacopo della Quercia, *Study of Drapery (21)*, discussed in Chapter Four.⁶ A similar drawing, *Study after Masaccio's Consecration of the Carmine (25)*, is also worthy of further study.⁷

III, 95, 100.

⁶ Frey, No. 1; Popham, 1930, No. 207; Berenson, 1938, No. 1587; de Tolnay, 1975-1980, No. 3r; Hirst, 1988, Pl. 108, 4-5, 59-60, 71; de Vecchi, 1992, No. 3, 28.

⁷ Frey, No. 23; Stix and Fröhlich-Bum, No. 129; Berenson, 1938, No. 1602; Benesch, No. 20; de Tolnay, 1975-1980, No. 5r; Hirst, 1988, Pl. 111, 59-60, 71; Gilbert, footnote 16, 269, 270, 273, argues that the drawing was not a copy after Masaccio, but a copy from a lost

The *Study after Masaccio's Consecration of the Carmine* shares with the *Study of Drapery* a fineness of handling and a steady, deliberate working method. Large areas, for example, the left-hand side of the garment of the left-hand figure on the Albertina sheet, are built up with long vertical lines of hatching, crossed with horizontal lines to make small squares. This base is then overdrawn with vertical lines to create movement. This is the same technique used in the modelling of the cloak in the area of the bottom of the drapery to the right of the two depressions in the material. There is a repeat of the modelling on the depressions in the Ashmolean drapery study by Jacopo della Quercia, as Michelangelo uses the shorter, darker lines over the base-hatching to create a depression in the material that the character pulls up from the front. Along the right-hand side of the character's garment is the now familiar hooked stroke which follows the fold round, modelling this top fold against the material beneath. The hatching is used with many variations to build up areas of different textures. The folds in the material held by the left-hand figure are all treated with variations on the given theme, the tension in this area contrasted with the areas of lower drapery which fall to the subject's feet. The right-hand figure is an example of the drawing in progress where only specific areas are built up in hatching.

Comparison can be made between the *Study of Drapery* and *An Old Woman resembling a Witch with a Child Standing beside her* (27).⁸ Given the dating of

drawing by Ghirlandaio made in preparation for the fresco *Saint Francis Resuscitating the Spini Child* in the Sassetti Chapel in Santa Trinita. No comparable drawing remains. Ames-Lewis suggests that Michelangelo may have copied an existing "pattern" drawing by his master. Ames-Lewis, *Art Bulletin*, 1981, 51.

⁸ Colvin, No. 8; Berenson, 1938, No. 1705 (as Passarotti). Berenson changed the attribution to "Andrea di Michelangelo" in 1935 (*L'Arte*, 257). He held the view that the drawing was

the studies by Michelangelo after Giotto and Masaccio as around 1490, it seems sensible to date the drawing of the old woman at around the same time, although it has been dated as late as 1520-1524.⁹ Close comparison of both drawings shows that the ink with which the *ricordi* on the *Study of Drapery* was written is of the same texture and colour as the ink which was used to draw the old woman and her ward. The subject is puzzling and, to date, no acceptable explanation has been forthcoming. Although a similar figure appears in a painting by Bacchiacca, in a scene which depicts crystal-gazing, there is no clear lead as to what the old woman is doing and why her companion might be with her.¹⁰ The drawing reveals strong characterisation and confidence, elements absent from the Virtues of the *Fonte Gaia*. The drapery here has life in a way that the drapery of the Quercia type study does not, for this is the work of a skilled, self-assured and very quick hand, in the same way that the *Study of Drapery* is by the hand of a confident, but somewhat more controlled individual.

There is much to be learned by comparing the hatching of the two drawings. The cloak on the figure of the old woman is built up with a thin and a thick stroke. The stroke is very fast and sustains a steady rhythm. The thicker line is predominant. The face is built up with simple, one stroke, parallel lines, again with the thin edge of the pen and very quickly done, much the same handling

a forgery, using Michelangelo's drapery from God the Father in the *Creation of Eve*, on the Sistine Ceiling; Parker, No. 324, 163; de Tolnay, 1975-1980, No. 100r; Hirst, 1988, Pl. 5, 11.

⁹ Popham and Wilde, 1953, No. 41.

¹⁰ There is a similar figure, this time seated, in a *desco da parto*, *Crystal-gazing*, by Bacchiacca (Kress Foundation, National Gallery of Art, Washington). In the tondo, a young woman gazes into a crystal in an attempt to foresee the fate of her unborn child. The figure of the old woman sits in the foreground leaning on a stick. She wears a cowl similar to that of the old woman in the Michelangelo drawing. She appears more placid, but is of similar

as in the hands. The stroke on the headgear shows the hooked line which gives the sense of a curve and thus a concern for the surface area of the material. This is very akin to a sculptor's stroke, as the hat hugs the back of the head. There is a clear similarity between the depiction of depth in the folds between the two drawings. The upper "dimple" in the cloak of the *Study of Drapery* is in the same position as the fold in the cloak of the figure of the old woman (on the right hip). Where the former study shows clear and progressive build up of modelling, the Michelangelo study, although using the same technique, shows greater development and refinement, a progression from the earlier sketch. Just as in the Quercia study, the area is built up with a series of vertical and horizontal strokes, but here the small lines used to build up areas of darkness are much more forceful, creating graduated areas of light and shade.

Such technique is in contrast with drawings which lie firmly within the scope of Michelangelo's training period with Ghirlandaio, but there is also evidence to suggest that Michelangelo moved away from the tightness of the style of Jacopo della Quercia and took on some of the traits his master, developing Ghirlandaio's style in the process. *A Kneeling Nude Girl* (72) now in the Louvre, is in stark contrast to the early copy after Giotto in its approach to using the technique of hatching in a new context.¹¹ Although the study is linked to the National Gallery's *Entombment*, the drawing, of around 1500, is an example of the hatching technique used to create form in space and to build up

physical stature. See Borenius, 131-132, the plate on page 130 has no number.
¹¹ Thode, No. 492; Berenson, 1938, No. 1742 *recto* (as School of Michelangelo) "I used to give it to Passerotti [but it now seems like the exact] copy [by a Cinquecento engraver] of a study by M. for the woman in the N. G. Entombment."; de Tolnay, 1943-1960, Vol. I, Pl. 280, 295 (as "Unknown Artist of the first half of the sixteenth century"); Wilde, 1953, 20; de Tolnay, 1975-1980, No. 31r (as Michelangelo); Hirst, 1988, Pl. 116, 63-62 (dated 1500);

up plasticity by allowing the inner structure of the figure to dictate to the pen, much as the technique Leonardo developed in his equestrian drawings.¹²

This is a highly unusual study, in that the figure (probably drawn from a female form and not from a *garzone*) is drawn in the nude. Michelangelo has deliberately used the drawing as a study or for experimentation to his own ends. The drawing, on a pink ground, has been carefully rendered, first drawn in black chalk, then with pen and bistre, and then gone over with a pen in a much darker ink.¹³ There are similarities here with the heavier stroke of *Study of Drapery* and *An Old Woman resembling a Witch with a Child Standing beside her* in the Ashmolean Museum in Oxford. The initial setting in place of the general outline of the girl using black chalk and then the application of pen and bistre offered Michelangelo the chance to build the form of the figure, having established shape and weight. The final pen and ink strokes, the ink obviously much heavier on the surface, now curve around a figure shape already set in three dimensions in the mind of the artist.

de Vecchi, Pl. 2, 92 (dated around 1503-1504); Hirst and Dunkerton, Pl. 52, 69.

¹² The attribution of the painting is problematic, many scholars considering that a pupil may have painted some of the characters. The figures of Joseph and John the Baptist do have similarities with the *Tondo Doni*, however. The attribution of the drawings causes fewer problems given the existence of drawings for the *Battle of Cascina* on the *verso*. The *Entombment* formed one of the main foci for the exhibition held at the National Gallery in London from 19 October 1994 until 15 January 1995, see Hirst and Dunkerton. Although the commission remained unknown until 1971, a number of documents brought much of its background to light. Hirst and Dunkerton, 57. It is known that Michelangelo abandoned Rome for Florence in March, 1501, and, while the friars of Saint Agostino may have hoped for his eventual return, the commission for the marble *David* (August 1501) would make such a possibility unlikely for some time to come.

¹³ The pink ground used here is in keeping with Ghirlandaio's practice, for example in *Two Young Women in Fluttering Draperies* Berenson, 1938, No. 890B (Print Room, Stockholm: Silverpoint on pink prepared paper; 340 × 295 mm).

The figure is drawn as a study for a piece of sculpture. The left leg is heavily hatched across its entire surface using a base of long strokes running from the thigh to the knee, drawn over with diagonal lines to create careful boxed-hatching. The right leg shows quite different handling. The left-hand line of the leg (approaching the deeply shaded area where the legs meet) is hatched in similar fashion to the left leg. This is the same method used in the lower line of the right thigh. However, the area between the two shows a different treatment, as the thigh area is lit and areas are left clear of any hatching to denote those which would appear nearest the light. Here, Michelangelo pulls the stroke around the inner muscle area, using longer curved strokes which run along the muscle ridge up towards the upper thigh. Similarly, the muscle from the lower thigh up to this top area is depicted using the same stroke which runs from the bottom of the muscle and curves up and over the muscle towards the slightly darker line of the muscle nearer to the top of the thigh and crosses over the already established line of hatching to smooth the two areas together.

Some of the earlier strokes from Jacopo della Quercia's work are still to be seen in their original form in the drawing. The hooked stroke running along the inner area of the right arm, moves the viewer around the form of the arm and into shade. This is entirely comparable to the stroke used on the left arm, where the long base hatching line runs down the arm from the shoulder all the way through the figure's folded arms. This time Michelangelo does not hatch with an angled line, but with a series of hatching lines which curve around the arm and hook around it to create a three-dimensional object, the line following the form.

Michelangelo was independent of mind and confident enough to probe other areas of development, eager to learn for himself and from others to build up an armoury of strokes and methods to suit his needs as an artist. To this extent, his corpus of work reflects the notable achievements of those who had earlier sought the same level of excellence. The next period of his working life is of interest to the current study in terms of the diversity of the commissions and the development of a drawing style which would find its culmination in the legendary studies for the *Sistine Ceiling*. The principal studies to be considered will be the *Bruges Madonna*, the *Tondo Taddei*, the *Tondo Pitti*, the *Tondo Doni* and the marble *David*.

The Bruges Madonna and the Sculpted Tondi

Vasari reports on the commission for the *Bruges Madonna*, believing the work to be a bronze *tondo*:

Michelangelo also made a bronze tondo of Our Lady which he cast at the request of certain Flemish merchants of the Mouscron Family, men of great distinction in their own country, who paid him a hundred crowns and sent the work to Bruges.¹⁴

Why Vasari should think that the work was indeed a *tondo* may be explained by Michelangelo's desire to ward off his competitors and to conceal the projects he was working on at the time. Little is known of the commission for the Madonna, although there may be connections with the Piccolomini commission of June 1501. A payment of fifty ducats was received from the

¹⁴ Vasari, trans. Bull, 340. Condivi also believed the Madonna to be cast in bronze. "He also cast in bronze a Madonna with her infant son on her lap; and this was sent to Flanders, by certain Flemish merchants, the Moscheroni." Bull, 24. Neither Vasari, nor Condivi had seen the Madonna as it had been shipped in 1506 but Condivi did know about it. Vasari failed to mention it in the first edition of his *Lives of the Artists* of 1550, but added it in 1568, picking up Condivi's mistake of 1553 that it was bronze and mistakenly adding the fact that it was a roundel.

Flemish cloth merchant Alexandre Mouscron on 14 December 1503, with a second payment in October 1504.¹⁵

Several sketches exist which shows the whole composition for the piece. Four studies are clearly linked to the composition of the group in the *Bruges Madonna* commission: a quickly sketched outline of the Madonna with the Child in the final position, *Male Nude and Studies for an Apostle* in the Uffizi (73); the *Virgin with the Child* (British Museum; 74) on a sheet with sketches for the *Battle of Cascina* Studies; *Study of a Virgin and Child* in the Albertina (75); *Studies of a Virgin and Child* in the Louvre (76). The drawings are presented here in what would seem a reasonable chronological order, although the establishment of a true chronology is impossible considering the number of commissions on which Michelangelo was working at the time and his habit of reusing sheets of paper.¹⁶ The two earliest drawings are of interest in anchoring initial ideas for the character of the Madonna and of the Child.

The drawing in the Uffizi, *Male Nude and Studies for an Apostle* (73) shows

¹⁵ Hibbard, 73; Bull, 164. Little is known of the background to the commission for the *Bruges Madonna* apart from the fact that the statue was ready for transport in August 1506. The Mouscron merchants were customers of the bankers Balducci, as was Michelangelo, and so an introduction may have been made. See Mancusi-Ungaro, 35-46. It is probable that Michelangelo completed most of the work before he left for Rome in the Spring of 1505. In terms of style there are similarities in the Virgin's face with that of the Virgin of the *Pietà* and the accepted date of 1504 seems sensible. See de Tolnay, 1943-1960, Vol. I, 156-157 for details of the history of the commissions. For the statue of the *Bruges Madonna*, see de Tolnay, 1943-1960, Vol. I, Pls. 44-49 and 102, 156-159; Bode, 219; Weinberger, Pls. 37.2, 38.1, 39.3 and 48.1, 109-117; Avery, 1970, 155, 171, 178; Hibbard, Pl. 39, 73-74; de Vecchi, No. 3, 48.

¹⁶ The problem of dating the sheets linked to the work on the *Bruges Madonna* and the various *tondi* is a very real one. See Weinberger, 98-126, *passim*, for an extended discussion on the dating of the various sheets linked to these commissions. The history of the *Bruges Madonna* is detailed in the accounts of Giovanni and Baldassare Balducci, Michelangelo's friends and bankers. See Mancusi-Ungaro, 36-38 for detail of payments; 38-40 for details of the shipping arrangements for the marble; 40-41 for details of the artist/patron relationship.

six tiny sketches (between 4 to 6 centimetres) which have links to the Bruges commission.¹⁷ These are similar to the British Museum study in terms of their status as working sketches, but show several different ideas for the composition. Three small sketches appear at right angles along the left-hand side of the sheet and show three different poses for the composition. The first shows the Child leaning against the mother's left knee, with His arm hanging over her left knee (this is similar to the finished statue); the second shows the Child sitting on the mother's lap and turning to take her breast. This is similar to the third sketch, although this is now faded and difficult to see. In the centre and running in the same direction as the main figures of the bather and the apostle, is yet another pose, this time with the mother's arms thrown into the air and the body turned violently to its left.

The *Virgin with the Child* (British Museum; 74) is also a study for the completed sculpture and shows the Child in, more or less, His final position, the left arm resting across the Virgin's lap and grasping her left knee, with the right arm drawn up to clasp the left hand of the Virgin.¹⁸ The composition shows the downward gaze of the Child, but here the Virgin is somewhat pensive and stares ahead, into space -- a pose similar to the Virgin of the *Tondo Pitti*. This is in contrast to the figure of the carved Virgin who, more resigned to the future fate of her son, gazes down on her right hand. The Virgin's left leg

¹⁷ Berenson, 1938, No. 1654A, "this helpless piece of draughtsmanship is not by the great master"; Wilde, 1953, 13; Weinberger, Pl. 43.3, 106-107; de Tolnay, 1975-1980, No. 37 (*recto*); Hirst, 1988, Pls. 32 and 33 (detail), 32; Mancusi-Ungaro, Pl. 36, 45.

¹⁸ Berenson and Weinberger considered the drawing as being a study for the statue (Berenson dating it at around the time of the *Last Judgement*); de Tolnay and Thode, as a development of the motive of the statue; Frey, an exercise by a pupil. Thode, 307; Frey, Nos. 45 and 46; Berenson, 1938, No. 1479; de Tolnay 1943-1960, Vol. I, Pl. 115 (as a "memory sketch" of around 1506); Wilde, 1953, No. 5, Pl. 8; Weinberger, Pl. 42. 1, 106; de Tolnay, 1975-1980, No. 46 (*recto*); Hirst, 1988, Pls. 75 and 37 (detail), 33, 43.

is raised to support the action of the Child and to support the feeling of the Child's move forward as He steps away from His mother. The sketch is very rapidly executed and is in the category of a working sketch to set the shape of the composition. In this respect it would seem to have been drawn at an early stage in the process. It is not clear that this sketch is for a three-dimensional piece, as it contains little in terms of the detail apparent in some of the later studies, apart from the fact that the economy of the line may point to a preliminary sketch on a block. It does, however, show characteristics of the sculptor at work as the artist seeks to create form in space, significantly, drawing in ink over a preliminary sketch in leadpoint. The original leadpoint sketch shows the Child's arm lying across the mother's right leg, further supporting the notion of the drawing as a study in progress but one close to the final position of the *Virgin and Child*.¹⁹

These two studies reflect Michelangelo's vision as a sculptor but also see the artist looking back to the work of Donatello and Desiderio da Settignano.

While the sheets show tiny and preliminary sketches, these illustrate a level of confidence in the ability to apply decisive and meaningful strokes which will establish form in space. This is precisely the achievement of Donatello, as seen in the *Massacre of the Innocents* (5) and subsequently related drawings of the type discussed in Chapter Six. As Donatello sets the figure of *David* on the *verso* of the Rennes sheet (32), so Michelangelo establishes the line of his *Madonna* on the British Museum study, indicating the contours of the chest and

¹⁹ The statue currently stands at the head of the south aisle of Notre-Dame in Bruges. This sketch would seem to be a consideration of Michelangelo's final choice of placement of the statue. Wilde points out, however, that the statue was placed on the octagonal pedestal wrongly in 1571. The principal view prescribed by the rectangular block is around 30° to

stomach area and the interaction of the Virgin and Child with ultimate understanding of the interaction of such forms in space. Michelangelo's style in this graphic context is not a duplication of the methodology of the masters, but a recognition of the knowledge of how they achieved their aims, coupled with his own development of such vision. Similarities with Desiderio da Settignano's *Virgin and Child* (42) are also applicable here, lessons learned from Donatello, reflected in Desiderio's economy of line and the pulling of the line out of the page to create relief contours. It seems likely that Michelangelo had seen such drawings and had mentally logged their characteristics for use in his own developing *oeuvre*.

The final two drawings which are linked to the composition of the *Bruges Madonna* are in the Albertina and the Louvre respectively. These studies, although linked with the *Bruges Madonna* are somewhat different from the sketches studied thusfar and, as such, establishing their place within the developmental timetable for the major commissions of this period is more problematic. These are not of the same type as the rapidly drawn studies for the monument, but are taken a step further in view of the secondary detail which they show. It is also important to note that, just as the sheet in the Uffizi showed, two of the three Madonnas are in the category of a *Virgo lactans*. Neither the three *tondi*, nor the *Bruges Madonna*, show the Child in such a position, but Michelangelo obviously saw this as a possibility, it may even have been an idea for the *Tondo Doni*, given the nature of the commission, but this is purely conjecture. What is of most interest is the development of a style

the right of the view prescribed by this octagonal pedestal. Wilde, 1953, footnote 1, 13.

of hatching that would aid Michelangelo at a point much closer to the end of the process than the early sketches, for the artist clearly starts to think about the pen in relation to the marble.

The studies may have been ideas for the *Bruges Madonna*, but they may also be linked to the two sculpted tondi, the *Tondo Taddei* and the *Tondo Pitti*.²⁰ The drawing from the Albertina, *Study of a Virgin and Child* (75) is much more highly developed than any of the sketches studied so far.²¹ Here, Michelangelo further develops the hatching technique of the early studies and from the study *a Kneeling Nude Girl*, to indicate work on the block. The composition may well be for a sculpted relief, as the artist indicates an area of marble/stone behind the right-hand side of the Virgin's head. Similarly, an area of roughed out texture is indicated to the right of the left leg. Much as the composition of the two marble *tondi* seems to rise out of the stone circle, here, the figure appears to come forward from a background of some substance. The dating of the sheet is problematic and an early date is given based on the appearance of a figure linked in style to the soldiers of the *Bathers*. It is tempting to link such a study with much later works as the motive is picked up in the *Madonna and Child* in the Medici Chapel and the cartoon *Madonna and Child* executed in 1520. However, it would seem that the theme was one which interested

²⁰ *Tondo Taddei*: de Tolnay, 1943-1960, Vol. I, Pls. 54-58, 162-163; Weinberger, Pl. 34; Hartt, 1969, Pls. 82-84, 88-91; Avery, 1970, Pl. 133, 177-178; Mancusi-Ungaro, Pl. 33, 38 and 43; Hibbard, Pl. 37, 70-73; de Vecchi, Pl. 1, 50; Hirst and Dunkerton, footnote 10, 76. *Tondo Pitti*: de Tolnay, 1943-1960, Vol. I, Pls. 50-53, 162-163; Weinberger, Pl. 35; Hartt, 1969, Colourpl. 7, Pls. 121-125, 128-133; Avery, 1970, Pl. 133, 177-178; Mancusi-Ungaro, Pl. 21, 45 and 55; Hibbard, Pl. 38, 73-74; de Vecchi, Pl. 2, 50; Hirst and Dunkerton, Pl. 29, 42-43.

²¹ Berenson, 1938, No. 1603; Hartt, 1971, Pl. 59, 66; de Tolnay, 1975-1980, No. 22v; Hirst, 1988, Pl. 40, 33. Berenson, too, questions the date and feels that without the figure of the *Bathers* he might have dated it much later at 1514.

Michelangelo for many years and may have figured as an idea for the *tondi* or the *Bruges Madonna* at one stage.

The emergence of this style of hatching is evident in a number of studies of this time. It appears in the *Studies of a Virgin and Child* (76) from the Louvre, indicating the mass of the legs and upper body of the left-hand figure, not as in some of Leonardo's equestrian studies, to follow the muscle contour, but here, to indicate work that would be carried out by the chisel, as the hatching plots the main areas for indication of surface undulation.²² This method is similar to that of the Albertina sheet on which Michelangelo would appear to have spent much more time. In this sheet, the Child has almost no hatching, the body taking on a smooth appearance. This may indicate the drawing's status as being for one of the *tondi*, as the baby would appear nearest the surface and in the highest state of polishing. Similarly, the head of the Virgin and the left-hand side of her upper chest would appear in this exceedingly finished state. On the other hand, as the hatching is followed back into the drawing, the treatment becomes more intense. The Virgin's left leg has a smooth area to its right (it would appear near the surface of the finished sculpture), but towards the back of the leg, where the knee is bent, the hatching becomes deeper and more varied. Following this line of argument, the areas to the Virgin's left-hand side, would appear in a middle ground and somewhat shallower in its depth of relief. This methodology is close to the *Tondo Taddei*, where the right knee of the Virgin is set towards the surface and in a smooth state, along with the body of the Christ Child who is finished to a reasonable state of smoothness (the final

²² Hartt, 1971, Pl. 58, 66; de Tolnay, 1975-1980, No. 23v; Hirst, 1988, Pl. 41, 33.

polishing may here be incomplete). However, the strokes of the chisel can still be clearly seen in the folds of drapery, cross-hatched as in the drawing, and while Michelangelo would not have exactly duplicated such lines on the marble, it is clearly the case, that the chisel and the pen are here coming together as part of a related technique.

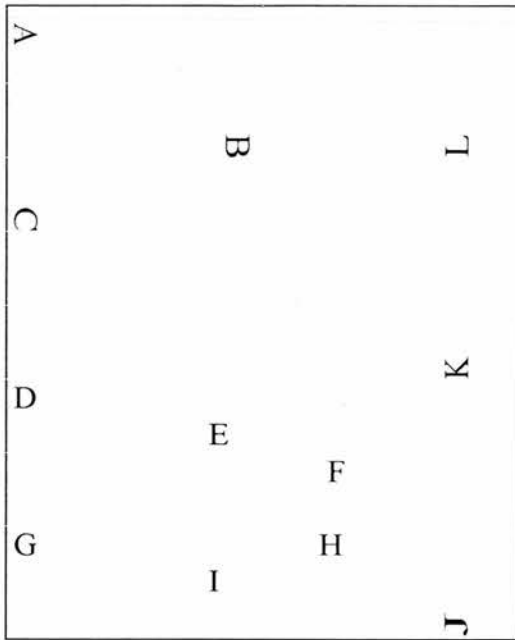
The link between pen and chisel is equally evident in the *verso* of the British Museum sheet *Virgin with the Child* (77). The two *putti* on the sheet link to the multiple versions of the childlike figures on the drawing *Studies of Putti* (78).²³ The two *putti* of the *verso* of the British Museum sheet *Virgin with the Child* are part of the same sequence, the two sheets showing ideas for the figures in various states of finish. The combined evidence of the British Museum sheets (77, 78) along with the Uffizi study (73) and the British Museum sheet *A Battle Scene; Two Figures Standing* (33), show that Michelangelo started the preparatory work on the battle-piece between 1503 and 1504.²⁴ At the same time, he was also working on the *Bruges Madonna*, the apostles for the Cathedral in Florence and the three *tondi* and so the ideas for the childlike figures could refer to any of the figures of Christ or John the Baptist as they appear in relevant works. The figures of the children begin as general ideas and are developed on the sheets, in some cases, to a level at which they are recognisable with finished work.

²³ Berenson, 1938, No. 1481; Frey, 91; Thode, 336; Vasari Society, VIII (1912-1913) No. 5 (*recto*); de Tolnay, 1943-1960, Vol. I, Pl. 109, 163, 185; Wilde, 1953, Pls. 7 and 10, No. 4 (*verso*), 9-10; Weinberger, Pl. 41.2, 107; Hartt, 1971, Pl. 11, 34 (as sketches for the *Tondo Taddei*, "The words 'things of Bruges' in an unknown sixteenth-century hand, twice repeated, are hard to explain, as these figures have little to do with the Christ Child in the *Bruges Madonna*."); de Tolnay, 1975-1980, No. 48r. De Tolnay considered that the four upper sketches were drawn between 1502 and 1503 and the three sketches in the lower half, around 1504 to 1505. The sketch on the left in the lower portion, he considered the work of a pupil. De Tolnay, 1943-1960, Vol. I, 186.

The *putti* of the British Museum sheet (77) are differentiated from those of the *Studies of Putti* in terms of their static position. Unlike the sheet of twelve *putti*, these figures seem to be drawn with an established idea in mind and are somewhat less free. The figure to the right of the large central nude study is a development from the very quickly sketched Christ Child on the Uffizi sheet (top right) where the Child has both feet on the ground, unlike the figure to the top left (at right angles) of the same sheet where the right leg is bent as the Child makes to step down from its mother's lap. Here, Michelangelo creates the figure in space and indicates areas where the final figure will be chiselled to create surface contour around the lower belly area. Similarly, the curls of His hair are indicated very much as carved sections, as they will appear on the final sculpture. The figure to the left of the central nude study is a view of the first figure, this time from the back. In the tradition of multiple viewpoints, Michelangelo seemed keen to denote the back of the figure and this suggests that the study links to the *Bruges Madonna* where, as a free standing composition, the back of the Child (or at least the upper body area) would be in view.

The sheet of twelve *putti* shows various ideas for the figures of Christ and Saint John the Baptist:

²⁴ *A Battle Scene; Two Figures Standing*: See above footnote 18, 87.



(Layout of British Museum sheet
1887-5-2-117 [Wilde, 4 verso])

- A Child with back to the viewer
- B The Virgin seated in profile to the left with the Child in front and reaching down from her lap (very faint)
- C Child in profile to the right
- D *Putto* in profile to its left and stretching forward
- E *Putto* in profile to its left
- F Variant of E (lower half of body only indicated)
- G Head of a woman in profile to the left
- H *Putto*, a variant of D (upper half of body only indicated)
- I *Putto* in profile to its left
- J *Putto* with its back to the viewer
- K *Putto* in profile to its right
- L *Putto* facing the viewer

The most obvious links are to the *Tondo Taddei* and the figure of John the Baptist who approaches the Virgin and Child from the right. He wears the cloak of camel hair and holds the goldfinch, in his outstretched hand, towards

the figure of the Virgin. The subject is not unfamiliar and shows the Madonna in profile, John the Baptist (with a christening cup at his hip) and the Christ Child. The group forms a circle within the shape of the *tondo*, the line of the body of John the Baptist and the head and shoulders of the Virgin forming an arch which strengthens the line. The Christ Child, who stretches across the Virgin's lap from left to right, breaks this common rhythm, creating new shapes within the circle.²⁵

The two *putti* most closely connected with the finished figure are E and I, along with K which shows the figure in reverse. This could have been an early idea for a different composition which saw the figure of John the Baptist enter from the right of the scene. E is an early sketch which echoes the technique of Desiderio da Settignano or indeed of Verrocchio, in creating form in space. Having set the general shape and movement of the figure, Michelangelo then draws it again (this time as I) and adds the incision lines which will depict areas of shade or areas where the surface of the sculpted figure will appear less finished or in shallower relief.

The unfinished nature of the drawing may well link to the unfinished nature of the *tondo*. The *Tondo Taddei* is considered to have been left unfinished and this may be intentional:

²⁵ Having seen Leonardo's *Virgin, Child and Saint Anne* in 1501, Michelangelo did spend time on studies which use this group, for example, *Madonna with Saint Anne* in the Ashmolean Museum, Oxford. For a side by side comparison, see Hibbard, Pls. 29 and 30. Interestingly, Michelangelo adopts a similar technique to that of the drawings currently under discussion and, in the process, would seem to have approached his version of the Leonardo cartoon as being for a sculpture. The Christ Child here is shown having been frightened by the goldfinch, a popular pet for children in Florence at the time. The bird retains the Christian symbolism as being the soul that flies away at death and so the scene takes on a more melancholy tone. The goldfinch has come to represent Christ's Passion.

he [Michelangelo] secures that ideality of expression which in Greek sculpture depends on a delicate system of abstraction, and in early Italian sculpture on lowness of relief, by an incompleteness, which is surely not always undesigned, and which, as I think, no one regrets, and trusts to the spectator to complete the half-emergent form.²⁶

The hair of the Baptist and of Christ in the finished relief has been roughed out with a cylindrically pointed chisel and the drill marks can still be seen. The Baptist has been brought up to a higher state of finish with a double-toothed chisel, but the surface is still quite coarse. The Virgin and Child are finished to the highest state using a three-toothed chisel. The final polish and finishing with a file has not, however, been carried out. This habit of working up some areas, while leaving others at a fairly basic stage is reminiscent of Michelangelo's drawing technique at this time.

The scene depicted on the *Tondo Taddei*, as in the *Tondo Pitti*, gives the impression that the work has been somehow "raised" out of the roundel. This is in keeping with Michelangelo's general method of sculpting:

The best method I ever saw was the one that Michelangelo used; when you have drawn on your principal view, you begin to chisel it round as if you wanted to work in half-relief, and thus gradually it comes to be cut out. The chisels for this are those that have got very fine points, and the handles of which are at least as large as the little finger.²⁷

In the drawings, Michelangelo somehow raises the figures out of the hatching (i.e. the block itself in the mind of the artist), leaving clean areas (to be nearest the surface) where there is no detail. Therefore, as some of the areas of the figures recede, so they are depicted by the use of (as here) wide-spaced hatching. As Michelangelo pulls the figures from the block in the finished

²⁶ Pater, 59.

sculpture, in the drawing, he works from the picture plane to push the drawn figure back into space. This is entirely similar to the method used for *putto* K.

The same methodology is used in the drawings which link to the *Tondo Pitti*. *Putto* C relates to the figure of the Christ Child, although it may be an early idea for the Child in the Bruges sculpture. To this end, *putto* A is another view of the same figure, this time showing the view from behind the figure at C. The Christ Child of the *Tondo Pitti* may well have been originally thought of as facing across the *tondo* or across the lap of His mother. Whatever the final destination of such a figure, the methodology of leaving the areas nearest the surface clear, with the hatching used to denote areas of shade or recession, is used consistently.

The Tondo Doni

Few drawings exist that can be linked to the *Tondo Doni*. The painting is one of the only certain easel works by Michelangelo. Like the *Tondo Taddei* and the *Tondo Pitti*, it was painted for a private collector -- Angelo Doni -- to celebrate his marriage to Maddalena Strozzi in late 1503 or early 1504.

Michelangelo had probably started the work in 1503.²⁸ The composition is unusual in its depiction of an athletic and obviously strong Virgin who raises a well-built Child awkwardly up off her shoulder, as He makes to stand up.²⁹ The

²⁷ Pope-Hennessy, 1985, 258.

²⁸ The *tondo* (forty-seven and a half inches in diameter) is tempera on wood, with the outline drawing on a plaster ground; a thin layer of green earth in covering resin, graduated white heightening; overpainting in transparent resin, with the exception of the flesh parts which are in pure tempera. For background to the painting, see de Tolnay, 1943-1960, Vol. I, 163-168; Weinberger, Pl. 33, 98-126, passim; Hibbard, Pls. 33 and 35 (detail), 67-70; Hirst, 1988, Pl. 152 (detail), 72, 75; de Vecchi, Pls. 3 and 4, 52.

²⁹ Maculist thought is conveyed through two actions. Firstly, Christ places His hands on the Virgin's head in blessing (spreading the belief that sanctification is endowed at Christ's

composition of the painting is that of a sculpted group, the figures set against an airless background and separated from each other by bold and confidently handled modelling. The family group is divided from the background nudes by the frame of the fountain but the two are linked by the small figure of the Baptist leading the viewer's eye to the top of the family group, constructed to echo the shape of the cross.³⁰

The *putto* J of the British Museum sheet *Studies of Putti* can only have a link to this group. This is the only Child who sits down and there is no evidence that such a pose formed part of the conception of either of the sculpted *tondi*. There is a defined movement in the arms and in the twist of the body which might link the figure to the group, although this figure is obviously seen from behind. Like the Child in the painting, the weight of the drawn figure moves to the left-hand side, as the Child pushes on its right leg to stand up. Similarly, work has been carried out on the drawing to study the movement of the arms but, as the Child in the drawing looks in the opposite direction to that of the Child in the

Incarnation) and secondly, Michelangelo places a book of Her lap. The book is marked in the middle and can be interpreted as the Book of Creation out of which the Virgin brought forth the incarnated Child. Renaissance scholars held three different views as to when the Virgin was sanctified a) at the moment of Incarnation (Doctrine of the Purification) b) in her mother's womb (doctrine of the Sanctification) c) at the beginning of creation (doctrine of the Immaculate Conception) The Dominican Order refused to accept the idea of the Immaculate Conception and held that the Virgin had been sanctified at the moment of the Incarnation of Christ (Maculist theory). On the other hand, the Franciscan Order did believe in the Immaculate Conception (Immaculist theory). De Tolnay feels that the Child is not moving up to Joseph, but is being handed down to the Virgin, Christ coming from his superior position *sub gratia* to the world of the Virgin and Joseph below, *sub lege*. For the present discussion it is accepted that the Child is indeed moving upwards, the push of the right leg very evident, as Christ is somehow hoisted to the top of the cross-like construction. See de Tolnay, 1943-1960, Vol. I, 165.

³⁰ The family sit in a dry fountain or font, a symbol of the Virgin's purity, the crescent shape echoing the arms of the family Strozzi. The Virgin sits on the ground and emphasises her connection with the earth. She sits on grass, while the surrounding area is scorched -- a contrast between salvation and damnation. For further discussion of the iconography displayed in the *Tondo Doni*, see Levi D'Ancona, 1968.

painting, the arm movement does not match closely. Just as in the other figure studies on this page, Michelangelo is interested in leaving the areas closest to the surface relatively free of hatching, using a hatching line to denote the area of shade, such as down the backbone of the figure and around the muscles of the left leg.

There seems to have been no cartoon prepared for the panel, as technical examination has revealed that there is no evidence of *spolveri*.³¹ Two drawings, however, are closely linked to the commission. Both drawings are in the Casa Buonarroti, and are considered studies for the right leg of the Christ Child and the head of the Virgin respectively.³²

The *Study for the Christ Child in the Tondo Doni* (79) displays Michelangelo's growing understanding of human anatomy and a confidence in the use of the pen as he works on an already established idea. As in the *putti* studies, he uses the short, hooked line to denote areas of shade, allowing the areas closest to the surface -- and destined to be finished to the highest state of polish -- relatively free of hatching work. In the areas of muscle, there is subtle use of line to denote movement and directional thrust as the stress moves from the ankle, up through the tensed calf area, to the knee, where the stress of the weight of the Child will lie as He attempts to stand up. This is shown in the strong contour to the right-hand side of the leg which pushes up against the thigh area, denoted

³¹ For details on the cleaning of the painting, see Berti, particularly 57-69, where infra-red studies show the surface of the panel.

³² *Study for the Head of the Virgin*: de Tolnay, 1943-1960, Vol. I, Pl. 127, 166 (de Tolnay considers that the same design was used again for the head of *Jonah* on the *Sistine Ceiling*); Weinberger, Pl. 32.2, 103; Hartt, 1971, Pl. 12, 35; de Tolnay, 1975-1980, No. 158r; Hibbard, Pl. 34, 67; Hirst, 1988, Pl. 151, 72-73. *Study for the Christ Child*: Hartt, 1971, Pl.

using the short, heavy, curved stroke to show the area of shade, the movement of the muscle, and the pressing motion of the lower leg.³³

On the other hand, in the *Study for the Head of the Virgin in the Tondo Doni* (81), this time in red chalk, Michelangelo uses the medium to create long lines of soft contour to heighten the areas nearest the cheekbones and down the left-hand side of the figure's mouth. This head is conceived not as a two-dimensional object, but as a piece of sculpture, the areas hit by the light, the most polished area of the marble. The nose is very heavily worked as this area would be in shade and less likely to be finished as highly as the area of the cheekbones. The lines of chalk are not drawn across a flat surface but across a three-dimensional object. This is particularly pertinent in two areas, firstly, the detailing to the forehead, and, secondly, the lines drawn across the muscles of the figure's left cheek. The line hugs the contour, much as was seen in the work of Leonardo of around the same time. The line from the corner of the eye up towards the forehead moves around the top of the head, the stroke seeming to continue around and under the hairline. Similarly, the lines of shading on the cheek move from the chin, up and around the face, up and over the ear.

This period is a transitional one in the career of Michelangelo. By 1547, he writes his conclusions to Benedetto Varchi:

For me, then, painting may be considered better the more it approaches relief, and relief may be considered worse the more it approaches painting: and so I used to believe that sculpture is the lamp of painting, and the first related to the second as the sun to the moon. Now having read your treatise

13, 35; de Tolnay, 1975-1980, No. 29r; Hirst, 1988, Pl. 147, 70.

³³ This further supports the opinion that the Child is trying to stand up. If He were sitting down (having been standing) the weight would have to be more evenly distributed if the figure were to avoid falling backwards and away from the mother.

where you state that, in philosophical terms, things that have the same end are the same, I've changed my opinion, I now say that if better judgement used to surmount greater difficulties, obstacles and toil, does not produce nobler results, then painting and sculpture are the same.³⁴

In the painting for the *Tondo Doni*, Michelangelo brings his vision, and all that he has learned from his masters, to bear on a methodology that satisfies all parties in the quest to create a three-dimensional graphic vocabulary. While drawn for ultimate use in a painting, these drawings are truly sculptor's drawings and created from a sculptor's vision of the world. Michelangelo's ultimate vision, brought forth in the creation of the marble *David*, is the subject for discussion in the last part of the thesis.

The Marble David

Michelangelo's studies for the marble *David* mark the end of a period of graphic development and epitomise everything that he had achieved until this date in the field of drawing. From this time forward, the artist concentrates on the representation of sculptural form, using the drawing techniques he had advanced and developed as the basis for his working process. This maturity is embodied in a study in the Louvre Museum, Paris, *Study for the Right Arm of the Marble David and for the lost Bronze David (81)*.³⁵

The sheet shows two distinct studies, the first for the bronze *David*, a full body sketch in profile to the figure's right, and the second, a sketch for the right arm of the giant marble *David*. The commission for the bronze *David* was received on June 22, 1501, when Pierre de Rohan, Maréchal de Gié, asked that a copy

³⁴ Bull, 120.

³⁵ Berenson, 1938, No. 1585 (*recto*); Frey, 24; Thode, 474 (*recto*); de Tolnay, 1943-1960, Vol. I, Pl. 93, 183; Weinberger, Pl. 30.1, 124-125; Hartt, 1971, Pl. 20, 39; Hibbard, Pl. 23,

be made for him of the statue by Donatello, which stood, at this time, in the court of the Palazzo della Signoria.³⁶ The drawing was probably executed shortly after receipt of the contract, dated 12 August, 1502. The drawing is of the figure of a youth, in profile, with the right foot resting on the head of Goliath. The left leg is straight, seeming to be tensed in this position, with the right leg pushed out, creating a pose of triumph. The figure's left arm is pulled behind its back and the right hand rests on the raised right leg. In this pose, the figure is entirely in keeping with the pose of *David Triumphant* by Donatello (32), a drawing Michelangelo must have seen. In Donatello's drawing, the David raises the right hand on the right hip and the left arm falls down the left leg. Both bodies have the same main pose, however, the bodies turned to show the width of the chest, so the figures do not appear in oblique profile, but invite the viewer to marvel at the display of strength apparent in the pose. Michelangelo's figure is entirely nude, while that of Donatello has a cloak, tied in a knot at the throat.

While the Louvre sketch for the bronze *David* is rapidly executed, it illustrates Michelangelo's growing confidence in the rendition of the sculptor's drawing. Here, there is little doubt that the sculpture is destined as a free-standing, three-dimensional object. This is very much a sketch where the angles of the torso and the stress of the muscles are of greatest importance to the artist and there is little desire to create any character in terms of facial features. This is a study for a bronze work and so it seems likely that some model would ultimately

53; Hirst, 1988, Pl. 1, 3.

³⁶ For background to the marble *David*, see de Tolnay, 1943-1960, Vol. I, 205-209; Weinberger, 93-97; Hartt, 1969, Colourpl. 6, Pls. 100-112, 104-114; Baldini, Pls. 66-73, 43-45; Hibbard, 52-54; Poeschke, 1992, Pls. 34-37, 40-45, 84-87.

figure in the process. Michelangelo draws here to explore the mass of the structure. He uses long lines to follow the contour of the muscles of the leg, particularly around the lower right leg, where the line hooks around the back of the leg, as if he were drawing around a cylinder; this same stroke is used to the lower left arm area. A similar but shorter stroke is used on the upper right thigh and, in a downward form, around the upper area of the left leg. He uses a spring stroke to denote the heavy area of shade down the calf area of the left leg. The same but slightly tighter stroke is used to shade the area down the left-hand side from the chest to the waist. A short, heavy, hooked stroke is used from left to right on the upper left arm. In this drawing, Michelangelo creates a credible form in space and then overworks the drawing to show areas of specific interest in the final piece. He uses his technique in a general sense to block out the figure for the next stage of execution. This is in sharp contrast to the second drawing on the sheet, that of the study for the right arm of the marble *David*.

In order to draw this sketch, Michelangelo turned the page around and drew the right arm and upper portion of the right-hand side of the chest in the opposite direction from that of the figure of the bronze *David*. The sketch is identifiable as one for a piece of marble sculpture by the application of hatching to distinct areas of the arm and body. The hatching seems, at this stage, before the more refined hatching for the studies for the *Sistine Ceiling*, to be somewhat primary and premeditated, but this belies the confidence with which the artist now applies this technical knowledge. The right arm is hatched using variations on the hatching styles seen to date. The shoulder muscle is built up using a long

stroke hooked around the bulk of the shoulder and across the top of the arm into shade. This is then crossed by a similar stroke, this time coming up from under the armpit in short, dark strokes. The angled hatching lines which run down the inside of the arm are ultimately crossed by almost vertical lines which denote the area around the upper part of the inner arm. This stroke continues down the inside of the arm to be met by darker, angled strokes which are drawn up from the inner forearm to meet the stroke coming down from the upper area. This culminates in an area of dark shading to the inner bend of the elbow. This method is used on the area of the outer right arm. Here is the sculptor's highlight, as the hatching pushes the flesh out to create areas which will be nearest the surface on the final statue. The muscle of the upper arm seems to dominate because the hatching has sculpted the area around it to raise it to the surface. This is similar to the highlighted area at the elbow joint and down the forearm. There is very heavy hatching to the inner forearm as the light hits the arm from its right.

Michelangelo begins his study and development of drawing technique with a look back to his elders in the form of Jacopo della Quercia. Taking on board the techniques of artists like Donatello, Verrocchio, Desiderio da Settignano and Leonardo da Vinci, he sets about creating his own technique, a technique that will fulfil his own private needs as an artist. At the same time, he takes up the mantle of those who had gone before, not only promoting their efforts, but also moving them forward to develop a distinctive sculptor's drawing technique. This technique would be taken up and more blatantly and forcefully applied by Baccio Bandinelli, whose work would illustrate this stage in

Michelangelo's technique without taking on board any of the developments that Michelangelo would continue to make on into the sixteenth century. Kenneth Clark recognised such technique as being synonymous with what he understood to be sculptors' drawings: "The cross-hatching of sculptor's drawings, familiar in the numerous drawings attributed to Bandinelli, but probably going back to Donatello, is of a different kind", but such technique is a snapshot in a development where the technique became highly distinctive and uniquely different from what had gone before.³⁷ Such distinctiveness had taken a century to refine through a series of manifestations and would continue in its refinement throughout Michelangelo's next great project, the *Sistine Ceiling*.

³⁷ Clark, 1988, footnote, 6, 224.

CONCLUSION

My study of the legacy left to the Renaissance sculptors in relation to three-dimensional visualisation and, in its turn, to the practical application of such awareness, did not reflect what might have been expected. Classical theories of visual perception from the time of Euclid and the more recent time of Ptolemy were expressed in scientific terms on a general level with detailed description of the visual mechanism and the eye's ability to see and record the presence of an object. No attempts were made to ponder how the visual signals are processed by the intellect and the emotions, and no discussion took place on two and three-dimensional visualisation. Those Renaissance scholars working in the field did little to advance this state of affairs, preferring to repeat earlier theories, similarly failing to address the painter and sculptor on anything other than common terms. It was not until very recent times (1998) that experiments such as those carried out by Amorim, Fukasima and Loomis sought to probe the way in which people see and re-configure shape.¹ One must conclude that those classical scholars of vision approached this study from a purely scientific point of view and were neither concerned with the study of the psychological processing of a visual image nor with probing the quality of comparative visual experiences. Nor did Renaissance scholars, such as Alberti or Piero della Francesca take this study on to a logical conclusion for the artist, preferring to repeat scientific theories and reiterate facts known to be true. Alberti makes it clear that this is not within his sphere of interest:

¹ See above, Chapter One, *Introduction*, 11.

This is not the place to argue whether sight rests at the juncture of the inner nerve of the eye, or whether images are represented on the surface of the eye, as it were in an inanimate mirror. I do not think it necessary here to speak of all the functions of the eye in relation to vision.²

Those works written to support the practical application of technique, in particular *Il libro dell'arte* by Cennini Cennino, sought to provide workshop advice for artists. As with Alberti's many aids to practice, however, this was set out in a general way, with only tentative differentiation between sculptor and painter. Some ground was made in studying the practical applications of such theories in the writings of Leonardo da Vinci where, as with other writers, he took for granted a natural talent for painting or sculpture as a pre-requisite of the activity. Leonardo does consider the painter and sculptor to be very different beings, in terms of the application of their talent, but does not probe the differences in the respective application of the necessary ability in either sphere or in the quality of their visualisation. The conclusion must be that, while painting and sculpture are seen as different activities, the artistic community of the time saw the artist as possessing natural talents, but did not probe why or how such talents were applied to such different media. The conclusion reached by the end of Chapter Two was that the Renaissance scholar and artist took for granted that all participants should naturally be able to carry out the basics of their craft, and while artists were encouraged to practise, it was on the basis that they already had the primary skills, no detailed instruction seeming to be felt necessary: "you should endeavour to draw and instruct yourself in design as much as you can".³

² Alberti, *On Painting*, trans. Grayson, 41.

³ Cennini, trans. Merryfield, Chapter 28, 15.

The practice of copying from exemplars was much in evidence, pointing to the need for the young apprentice to mould himself in the manner of his master: “Whether you practise painting or sculpture, you should always have before you some fine and remarkable model which you observe and copy; and in copying it I believe that diligence should be combined with skill in execution”.⁴ It is clear from the tone of this and of Cennini’s manual that those artists wishing to develop a style of graphic expression to support the creation of sculpture had to establish their own vocabulary for such undertakings in the absence of a true understanding of their needs in the graphic medium. As outlined early in Chapter Three, a defined strategy for the development of the artist was not evident.

While the creation of believable space was seen as being of the greatest importance in the early decades of the century, the rendering of figures that might be placed within such a space was left in the hands of the artist, whether painter or sculptor. Confined by the limitations of the model-book tradition and seeing no real progress from writers like Cennini, sculptors had to find ways in which to create techniques to generate three-dimensional figures on paper, before transferring these figures onto stone or marble. Jacopo della Quercia’s *Study for the Fonte Gaia (I)* illustrated a new approach to drawing where figures were given weight and plasticity by the application of a range of strokes. Such ideas did not exist in isolation, nor were they born of sudden innovation. These ideas came from a range of experiences of different working practices in a variety of artistic spheres. Early development was set in context

⁴ Alberti, trans. Grayson, 92.

in Chapter Three, by probing other working practices and developments from the trecento and the early years of the quattrocento. Many artists began their working lives as goldsmiths and woodcarvers leading to the conclusion that such experience would have been affected their style in panel painting or full-scale sculpture.⁵

The differences in the various psychological approaches to working in different media has not enjoyed in depth investigation. Given that many artists, including Jacopo della Quercia and Ghiberti, worked in the goldsmith medium and brought such experience to bear in creating their own style and technique, no weight has been given to the existence of any unusual approach to drawing. The arguments against Jacopo della Quercia's authorship of the *Study for the Fonte Gaia*, where critics cannot agree the style of the drawing with the style of the completed sculpture, is testimony to this lack of understanding.

Within a number of works was found a freshness of approach and a specific attitude to creating space and figures. The work of Pacino di Bonaguida, active as early as 1303, highlighted the art of illumination in a series of sheets executed with an eye for the greatest detail with the clear intent of creating credible scenes to support the telling of a story. Early evidence of hatching to create surface contour was found here, as well as an understanding of the modelling of a three-dimensional structure. There is development through later works such as *The Trinity* (7) and in works by the Master of the Dominican

⁵ See above, footnote 3, 36, for background information on a number of artists.

Effigies where the hatching is further developed and the creation of architectural settings enhances the naturalness of the figure composition. Therefore, sculptors were aware of and were actively influenced by advances around them, in addition to themselves influencing such developments.

The work of Jacopo della Quercia was influenced by a number of factors, not least his early training as a goldsmith. A knowledge of the work of illuminators and those artists working in Siena at the time, gave him a varied array of influences to draw upon, able to appreciate a new approach to the creation of credible, natural figures, using a number of techniques. The context in which he began to draw was not one of isolation and frustration with what was being promoted through the model-book tradition, but one which offered alternative ways of approaching his work.

The initial *Study for the Fonte Gaia* by Jacopo della Quercia has been considered, for some time, the only probable drawing by the Siennese artist with many strong refutations in relation to the attribution over a number of years.⁶ However, close inspection of a number of related studies extended the group of drawings attributed to him to include *Study of Drapery (21)*, *Madonna and Child between a Saint and a Donor (22)*, *Standing Man in Cloak (23)*. The reflected study of contemporaries like Parri Spinelli (19) and Spinello Aretino (20) was also instrumental in differentiating between styles which initially showed some level of similarity. This had the added benefit of sharpening an understanding of Quercia's individual style, the conception of which is helpful

⁶ See above, footnote 6, 63, for information on the question of attribution.

to the viewer in relation to building a mental picture of what the drawings for other works might have looked like, for example, *San Petronio* in Bologna.

Quercia's drawing for the *Fonte Gaia* was of enormous importance in providing a clear reference point in the century as it emerges from other developments which begin early in the fourteenth century with the work of the illuminators, to set a range of strokes in place which are recognisable as unique to rendering in three dimensions. The single line hatching, cross-hatching at varying angles, the incised line and the unique hooked stroke are first seen in Quercia's work. In addition, particularly in the *Standing Man in Cloak*, such cross-hatching style was used not this time to create a drawing for a free-standing piece of sculpture in the round, but for a piece of relief work. This concluded in the claim that Jacopo della Quercia had established the system of cross-hatching later seen in Ghirlandaio's work, and that such a system was not, as so often reported, invented by Ghirlandaio himself.

There are disappointingly few drawings from the early decades of the century and there is a need for further specialist research within this time frame in order to bring new works to the surface (if such drawings exist). However, it was clear from Ghiberti's own statements that he did undertake many drawings for himself and others. Ghiberti was knowledgeable on the art of the goldsmith, evidenced by the examples of pieces he had worked on and for which he would have produced detailed drawings for his client. The move to working in bronze may have changed Ghiberti's attitude to the production of drawings, preferring to produce working sketches as opposed to meticulous contract drawings. An

example of this would be *Five Studies for a Flagellation of Christ* (3), where he is interested in working out the problems of a composition on paper. This fact is difficult to determine given the scarcity of drawings in this period.

The *Study for Saint Stephen* (2), while not showing any recognisable desire in its artist to create a three-dimensional character or exhibiting any of the strokes recognised in the work of Quercia, was useful to the study in providing subject matter, so close in time to the Quercia study, as a clear contrast to a drawing for sculpture in the round. It could not, however, be considered a sculptors' drawing. Here, the artist created his vision of a statue with no desire to imbue the figure with three-dimensional qualities. The intricate nature of the approach to the drawing pointed to the involvement of an artist well versed in working in an intricate medium -- perhaps a goldsmith. The study of related drawings of the time continued to hold interest in comparative efforts to experiment with three-dimensional representation, this time for relief. *Studies for Six Walking Studies* (28), *Heart of the Miser* (34), *Four Grieving Figures* (38) showed concern in trying new approaches to figure composition and a growing awareness of three-dimensional visualisation within the workshop, a development encouraged by the work of Donatello, and exemplified in the only autograph drawing available for study, the *Massacre of the Innocents* (5). As with the study by Jacopo della Quercia, this drawing stands apart as one of the most influential of the corpus.

Massacre of the Innocents is a pivotal drawing in the evolution of Donatello's work in relief and Chapter Six set out to strengthen the case for his authorship.

Unlike the painter concerned with surface modelling, Donatello uses the line to create form on paper, the line implying the weight and movement of the figures. Such technique illustrates the confidence of the artist and his knowledge of the inner workings of the body. Donatello was also able to use the line to establish mood. In the *Massacre of the Innocents* his own emotional attitude to the scene, and the implications of what is happening, is communicated to the onlooker by way of simple, but highly accurate strokes. The comparison with Donatello's relief work in Padua showed similarities in style and intent and further reinforced his involvement.

Few drawings remain from the pen of Donatello but the many pieces of relief work showed similar handling and a distinguishable link, in the mind of the artist, between pen and chisel. This was seen particularly in *Christ Giving the Keys to Saint Peter* (figure eighteen) and the predella for the *Saint George* (figure nineteen). Here, the same incised line is used but this time on marble. As with the *Massacre of the Innocents*, form is created as Donatello carves his vision in marble, but the line is applied in similar fashion to the line left upon the paper. The strength of the application of the stroke was further underlined in the comparisons with copies of Donatello's drawings where the artists, without Donatello's talent in manipulating the line, could only come up with renditions which were flat by comparison. Such evidence, coupled with the study of related drawings established the level of Donatello's influence on the work of other artists, particularly in relation to drawings, but also in relief work itself.

The interim period before the work of Leonardo and Michelangelo saw a number of contemporary sculptors, working in the shadow of Ghiberti and Donatello, take on new ideas for rendering in three dimensions. By mid-century, while drawings are still scarce, there is a confidence in the perpetuation of a developmental strand. The tools with which later sculptors sought to characterise sculptors' drawings had now been established. This period saw a number of artists create drawings which clearly reflected knowledge of contemporary techniques and showed an effort and a desire to sustain what now began to emerge as a strand of development comprising various forms and applications of hatching, the line used to create relief forms, and an increasing individuality in the drawings created by sculptors.

The choice of Leonardo's equestrian drawings for study saw a microcosm of development within his wider *oeuvre* as the artist created sculptors' drawings within the spirit of the wider quattrocento developments. The failure to execute any of the sculpture enabled concentration to be focussed on the drawings themselves and to have the reader concentrate, as the artist must have done, on how such a drawing would then equate to a completed piece. This necessitated the application of the reader's ability to visualise in three dimensions and to seek stylistic aids within the drawing style to support that recognition.

Particularly important here was Leonardo reticence in identifying any positive asset in the work of the sculptor. Taking on the sculptor's role in the psychological approach to his work, he confessed, not only a desire to create in three dimensions, but many of the difficulties in creating credible three-dimensional figures on paper. The development, from the simple horse of RL

12318 to the impassioned image of the finished sculpture in RL 12354 showed a distinct journey in terms of Leonardo's understanding of form and in rendering in three dimensions. The initial spring stoke, applied in an almost arbitrary manner in RL 12318, developed into a stroke which hugged the contours of the inner frame of the horse in RL 12315. Like Jacopo della Quercia, Leonardo began to use favourite techniques, such as the incised contour line overlaid with small hooked strokes to define deeper undulations, particularly along the lines of bones. Through the series of drawings for the *Sforza Monument*, a more rhythmical and natural development took place as the inner frame of the horse dictated the line of the hatching. In the last of the series of commissions, for the *Trivulzio Monument*, all the elements of the technical vocabulary came together in a series of drawings of greater confidence and understanding.

The final period of study, that of the early work of Michelangelo sought to look at the psychological approach -- first seen in Donatello's *Massacre of the Innocents* perhaps -- of an artist who naturally saw in three dimensions and who created drawings, whether for fresco, marble or panel, as three-dimensional objects. The discrete concentration of his early studies after Masaccio and Giotto (25; 26) showed a young artist who was interested in the process of learning for its own sake. The links to Jacopo della Quercia (including his ownership of the *Study of Drapery*; 21) are evident in these early studies. Michelangelo then takes on some of the traits of Ghirlandaio's hatching technique in *Kneeling Nude Girl* (72) to take his style forward again in the later studies for the marble *David* (81). On this sheet he uses single

stroke hatching, cross-hatching, the hooked stroke to create rotundity in the limbs, the spring stroke first introduced by Leonardo, the long running line over the muscles, and finally pays homage to Donatello in the creation of the form in space, as the bodyline of David is sculpted on the paper. This drawing, coupled with the many *tondi* studies, reflects the cumulative efforts of sculptors throughout the century to create a vocabulary with which they could express their intentions and looks forward to further developments in Michelangelo's later work.

At the end of this study, a corpus of drawings under the category of "sculptors' drawings" has been established which extends beyond what might have previously been considered a relevant body of work. Using the drawings themselves as the main source material, detailed analysis has allowed techniques associated with sculptors' drawings -- often hinted at by historians but not, until now properly researched -- to be isolated and scrutinised, culminating in the recognition of a developmental strand in the quattrocento in the field of sculptors' drawings which culminated in the work of Michelangelo. The characteristics of these drawings are of the greatest subtlety and it is in the drawings themselves that the evidence is to be found. Further work is now necessary in isolating specific periods within the century to further add to the corpus and to an understanding of the sculptor's drawing.

APPENDIX ONE

Designs prepared by Lorenzo Ghiberti for execution by another artist

Drawings and Cartoons for the Windows of Santa Maria del Fiore:

- | | |
|--|---|
| 1404 Ascension of the Virgin | Prior to December, Ghiberti designs window of <i>The Assumption</i> for the centre oculus on the façade of the Cathedral. |
| 1412 (?) Two Oculi for the Cathedral | These windows were executed by Niccolò di Pietro (1412-1415) façade of the aisles of the without Ghiberti's name appearing in the documents. |
| 1424 Expulsion of Joachim and the Death of the Virgin | The two windows are executed for the first bay of the nave by Fra Bernardino. |
| 1425 Two windows for the dome transept | From January 12 to January 29 there is some argument between Ghiberti and Fra Bernardino regarding the designs. |
| 1433-34 Coronation of the Virgin (for the dome) | From December 30, 1433 to April 14, 1434, there is discussion as to whether the design submitted by Ghiberti should be commissioned. In the end, the design submitted by Donatello is chosen. |
| 1428-1438 Designs with scenes from the life of Mary and figures of saints for the chapel of St. Zenobius | April 10 - two windows in the chapel of St. Zenobius are to be designed by Ghiberti and executed by Bernardo di Francesco. |
| 1440 - 4 windows | Ghiberti is paid for drawings for four windows December 29. |

1441 window for the chapel of St. Peter

Ghiberti receives payment for a small window in St. Peter's Chapel in the Cathedral.

1442 Window designs for the chapel of St. Matthew, Thomas, Bartholomew, Andrew, Stephen, John the Evangelist, Anthony Abbot, James Major, Philip, Barnaby and an un-named saint

January 5 - Ghiberti receives payment for drawings for stained glass windows in and above the chapel of St. Matthew.

February 10 - Ghiberti receives payment for a drawing for a window in the chapel of St. Thomas.

February 28 - Ghiberti receives payment for the drawing for a window in the chapel of St. Bartholomew.

March 5 - Ghiberti receives payment for drawings for windows in the chapels of St. Andrew and St. Stephen.

May 12 - Ghiberti receives payment for drawings for windows in the chapels of St. John the Evangelist and St. Anthony Abbot.

June 14 - Ghiberti receives payment for a drawing for a window in the chapel of St. John the Evangelist.

July 6 - Ghiberti receives payment for a drawing for a window in the chapel of St. James Major and St. Philip.

July 31 - Ghiberti receives payment for a drawing for a window in the chapel of St. Barnabas.

November 24 - Ghiberti receives payment for a drawing for a window in an un-named chapel.

December 10 - Ghiberti receives a final payment for a window in the chapel of St. James Major.

1443 The Ascension of Christ, Mount of Olives, Christ's Presentation in the Temple for the dome

July 13 - Ghiberti receives 35 lire as a partial payment for a drawing of an *Ascension* for one of the oculi of the dome.

September 11 - Ghiberti receives 65 lire as a final payment for *Christ in the Garden*, also an oculus.

December 7 - Ghiberti receives 50 lire for the *Presentation in the Temple*, an oculus for the dome.

Designs for Stonemasonry and Architecture

1419 Entrance to the papal apartments in the cloister of Santa Maria Novella

May 20 - Ghiberti's design is accepted.

1422 Design for the niche of St. Matthew at Or San Michele

May 2 - contract with stonemasons Jacopo di Corso and Giovanni di Niccolo to execute the niche - 75 florins plus a block of marble.

1432 Marble frame for the Linaiuoli altarpiece

Prior to October 29 designs are made. Payments made - October 29, 1432 and August 1, 1433 to woodcarvers Jacopo di Piero and stonemasons Jacopo di Bartolo da Settignano and Simone di Nanni da Fiesole for execution after Ghiberti's design.

1434 Design for Choir Screen

December 31 - Ghiberti receives payment of 12 lire for the drawing for the choir screen in the Cathedral.

APPENDIX TWO

Leonardo's Equestrian Studies in the Royal Collection at Windsor Castle

Drawing Windsor No.	Sforza	Trivulzio	Others
12285			√
12286			√
12287			√
12288			√
12289	√		
12290			√
12291 (<i>recto and verso</i>)		√	
12292 (<i>recto and verso</i>)		√	
12293 (<i>recto and verso</i>)			√
12294	√		
12295			√
12296			√
12298			√
12299	√		
12300 (<i>recto and verso</i>)		√	
12301			√
12302			√
12303			√
12304 (<i>verso</i>)			√
12305			√
12306			√

12307 (<i>recto and verso</i>)		√
12308		√
12309 (<i>recto and verso</i>)	√	
12311		√
12312 (<i>recto and verso</i>)		√
12313	√	
12314	√	
12315		√
12316		√
12317	√	
12318		√
12319	√	
12321	√	
12322	√	
12323		√
12324		√
12325 (<i>recto</i>)		√
12326 (<i>recto</i>)		√
12327 (<i>recto</i>)		√
12328 (<i>recto and verso</i>)		√
12330 (<i>recto</i>)		√
12331		√
12332		√
12333	√	
12334		√

12335			√
12336			√
12337 (<i>recto</i>)			√
12338 (<i>recto and verso</i>)			√
12339 (<i>recto and verso</i>)			√
12340			√
12341		√	
12342		√	
12343		√	
12344 (<i>recto and verso</i>)		√	
12345 (<i>recto</i>)		√	
12346 (<i>recto</i>)	√		
12347 (<i>recto</i>)		√	
12348		√	
12349 (<i>recto and verso</i>)		√	
12353		√	
12354			√
12355		√	
12356 (<i>recto and verso</i>)		√	
12357	√		
12358 (<i>recto</i>)	√		
12359		√	
12360		√	

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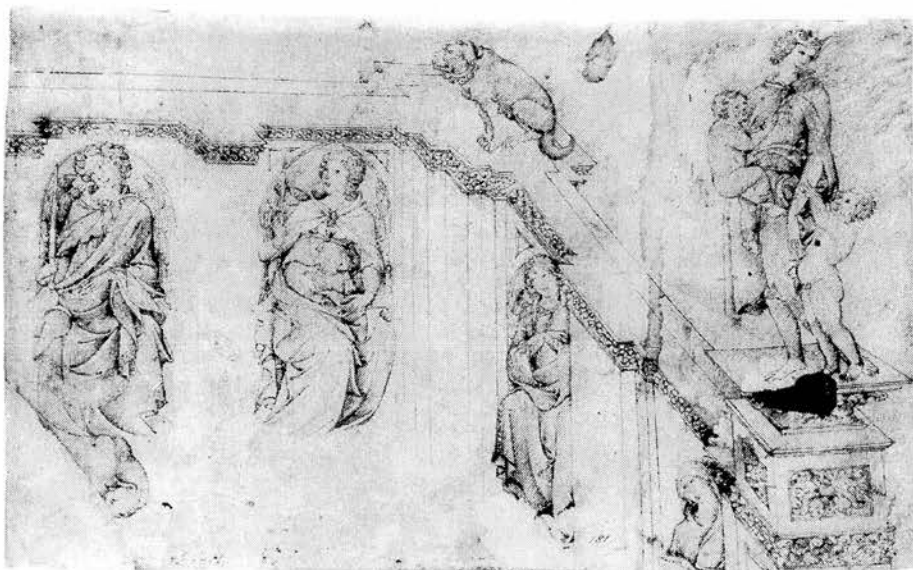
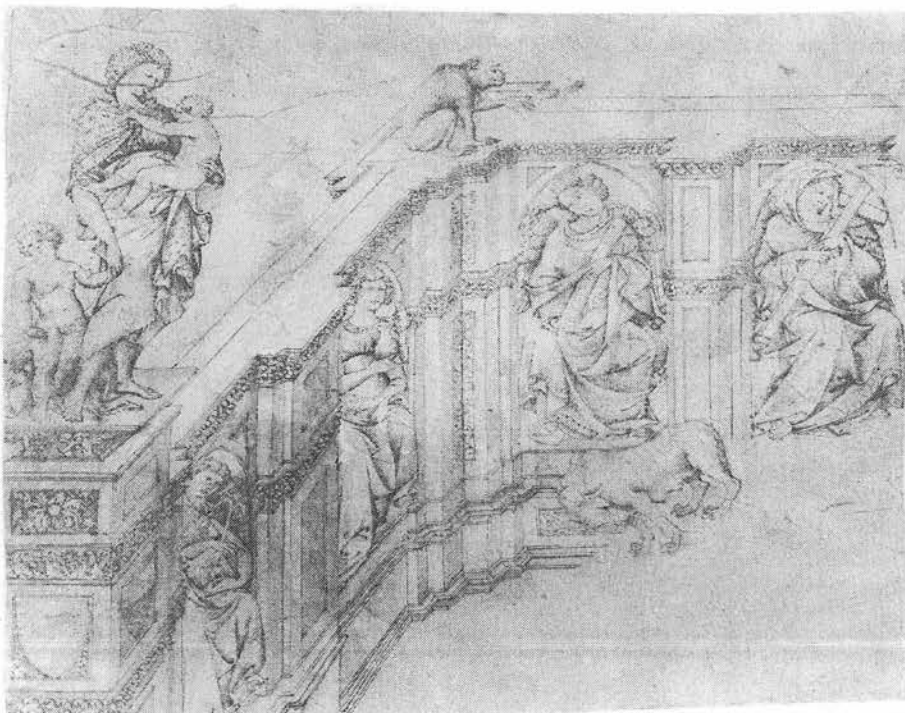
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DRAWINGS



Jacopo della Quercia (1)

Study for the Fonte Gaia

Left-hand fragment: pen and black ink on vellum; 202 × 218 mm. Metropolitan Museum of Art, New York: Harris Brisbane Dick Fund, 49.141. Right-hand fragment: pen and black ink on vellum; 134 × 212 mm. Victoria and Albert Museum, London: Dyce 181



Workshop of Ghiberti (2)

Study for Saint Stephen

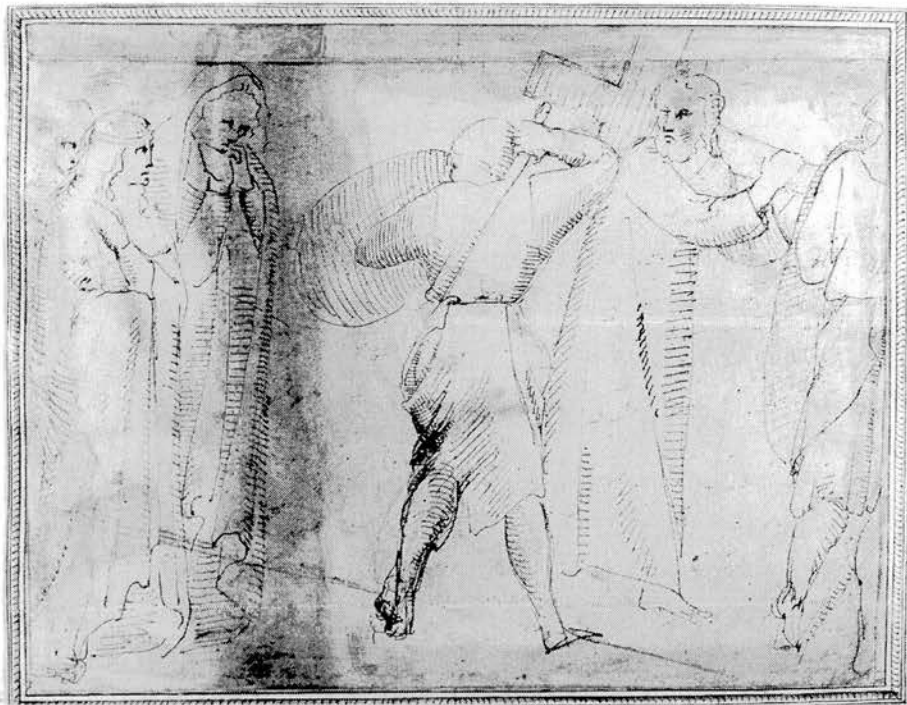
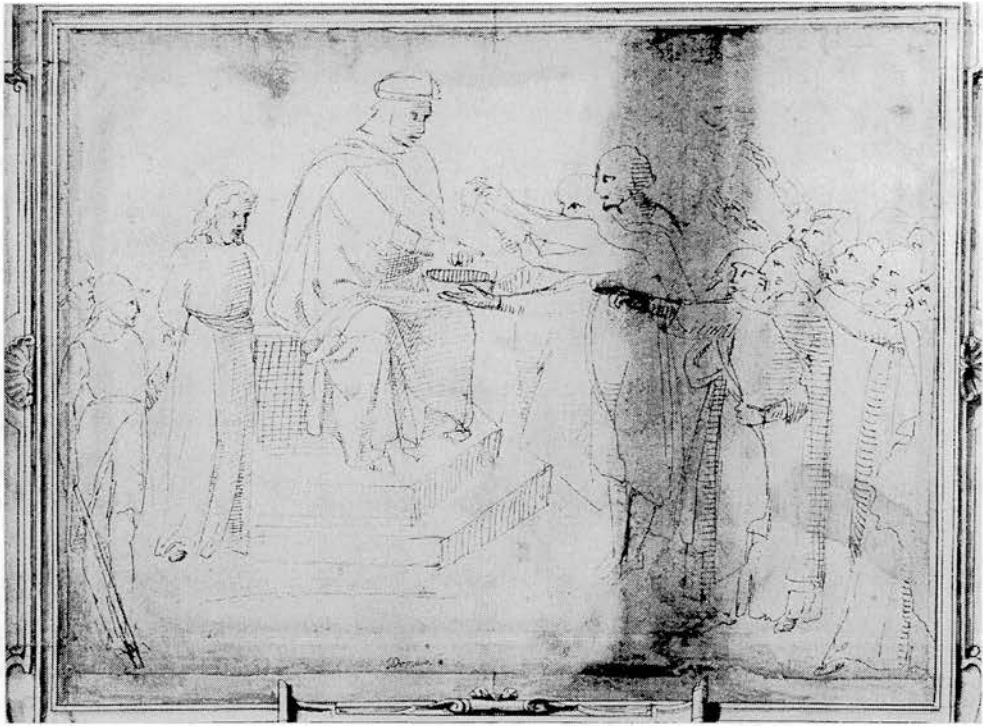
Tempera and gold on bluish linen; 690 × 300 mm
on the socle the words: SCS STEFANUS MAR in gold lettering
Louvre Museum, Paris: Inv. 1231



Lorenzo Ghiberti (3)

Five Studies for a Flagellation of Christ

Pen and brown ink with numerous pentimenti; 216 × 166 mm
Albertina Museum, Vienna: Inv. 24409



Nanni di Banco (4)

Pilate Washing his Hands (recto)
Christ Carrying the Cross (verso)

Pen and brown ink over metalpoint sketch; 288 × 378 mm
Duke of Devonshire Collection, Chatsworth: 963



Donatello (5)

Massacre of the Innocents (recto)

Pen and brown ink with the group of children gone over in deep black with thicker lines; 286 × 202 mm
Musée des Beaux-Arts, Rennes: Inv. C. 3-2



Pacino di Bonaguida (6)

The Calling of Saint Andrew in an Initial A

Tempera and gold leaf on parchment; 466 × 339 mm
Louvre Museum, Paris: 9828



Pacino di Bonaguida (7)

The Trinity

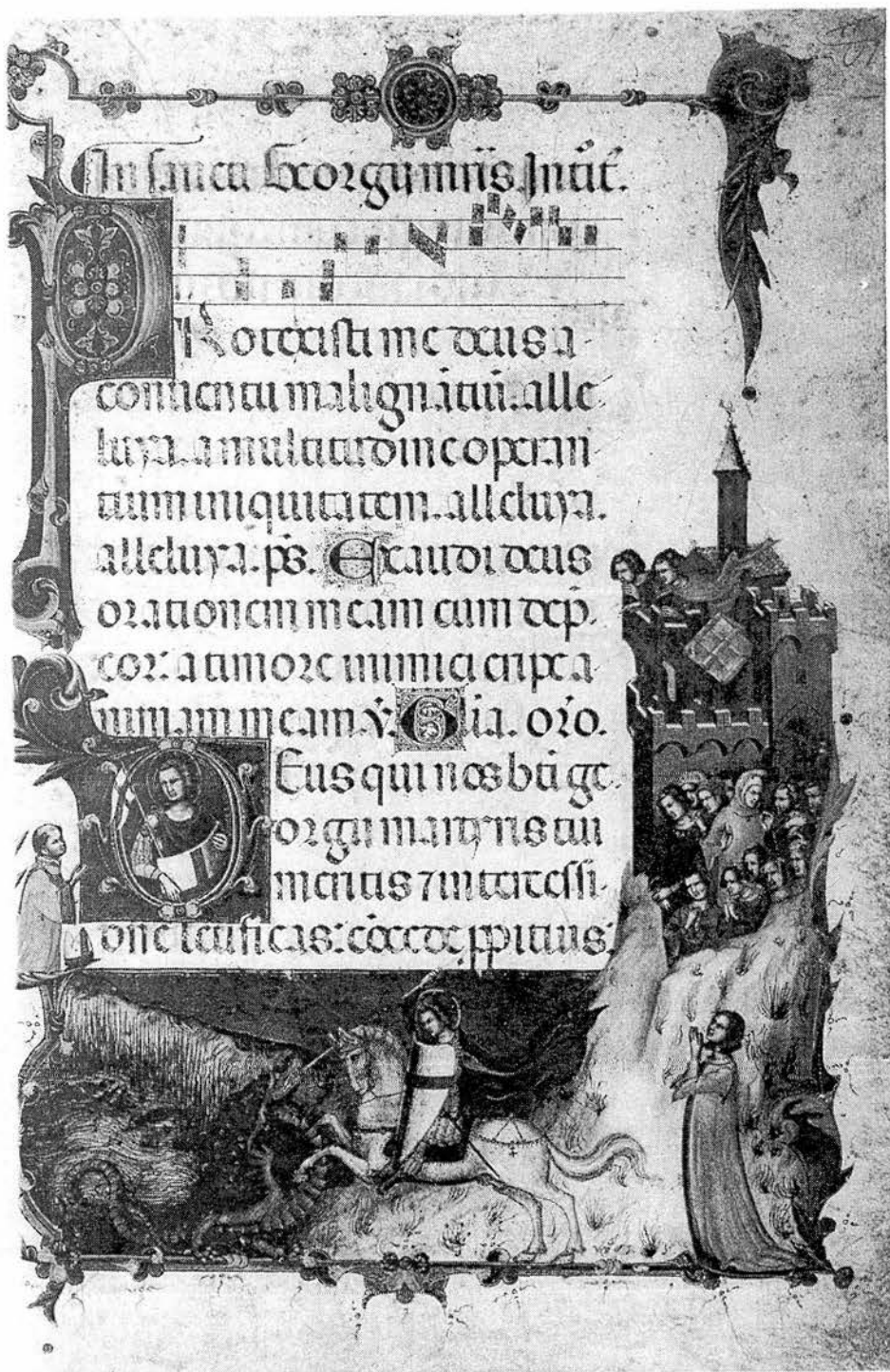
Tempera and gold leaf on parchment; 450 × 333 mm
The Pierpont Morgan Library, New York: M. 742



Master of the Dominican Effigies (8)

The Pentecost

Tempera and gold leaf on parchment; 430 × 317 mm
Bernard Breslauer Collection, New York



Master of the Codex of Saint George (9)

Saint George Saving the Princess by Slaying a Dragon in an Initial D

Tempera and gold leaf on parchment; 373 × 263 mm
 Biblioteca Apostolica Vaticana, Vatican City: C. 129, folio 85r



Master of the Codex of Saint George (10)

*Cardinal Stephani in the Company of Monks Offering his Book
to Pope Celestine V (Saint Peter Morrone) in an initial G*

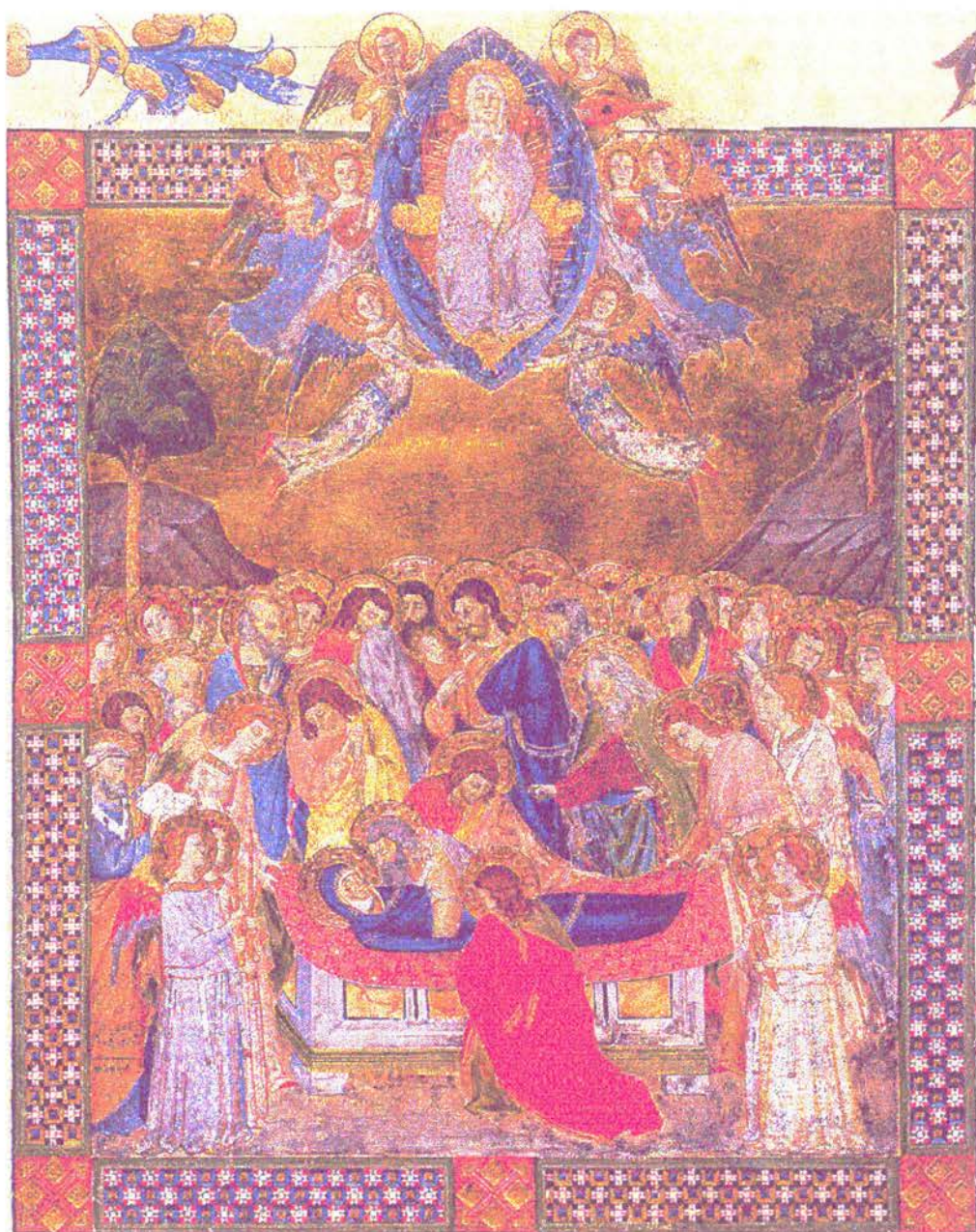
Tempera and gold leaf on parchment; 373 × 263 mm
Biblioteca Apostolica Vaticana, Vatican City: C 129, folio 123r



Master of the Codex of Saint George (11)

Emperor Constantine Praying Before an Altar in an initial D

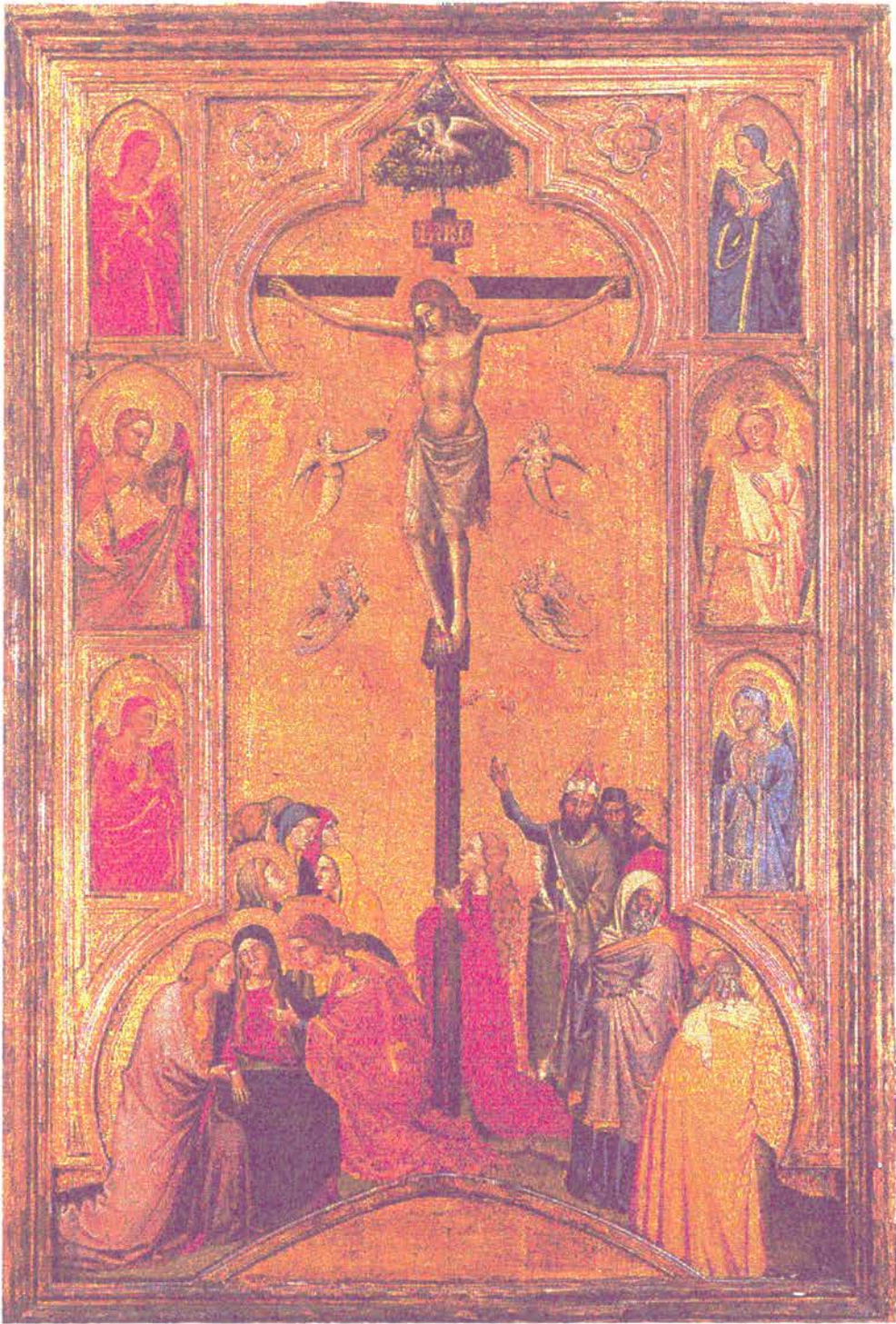
Tempera and gold leaf on parchment; 373 × 263 mm
Biblioteca Apostolica Vaticana, Vatican City: C 129, folio 106r



Don Silvestro dei Gherarducci (12)

The Death and Assumption of the Virgin

Tempera and gold leaf on parchment; 388 × 305 mm
British Library, London: Add. MS 37,955 A



Don Silvestro dei Gherarducci (13)

The Crucifixion

Tempera on panel; 1374 × 820 mm
The Metropolitan Museum of Art, New York: 1975.1.65



Jean Pucelle (14)

The Annunciation
(from the Hours of Jeanne d'Évreux)

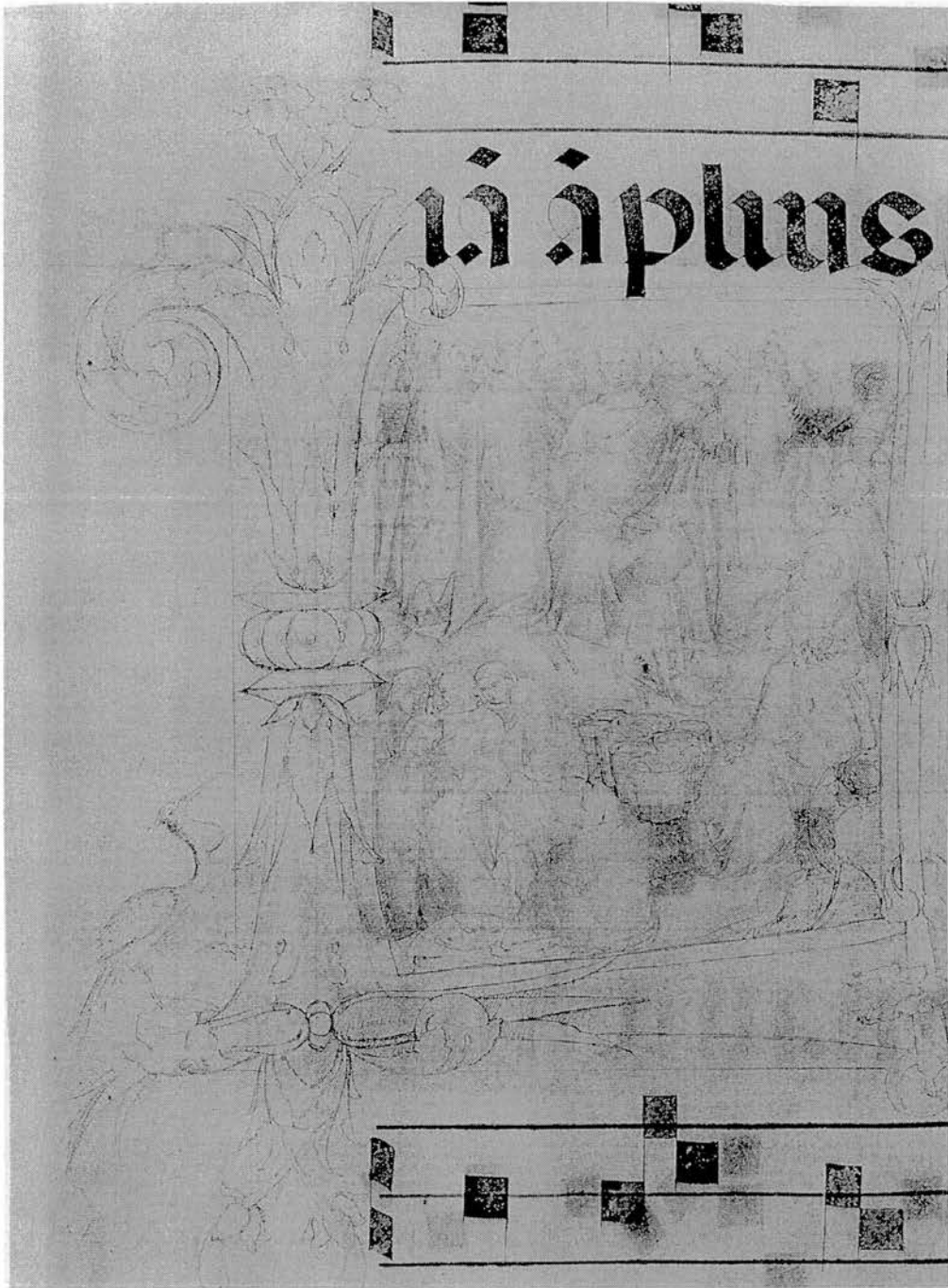
Grisaille; 90 × 60 mm
The Cloisters: New York: f. 16



Jean Bondol (15)

Presentation of the Volume to Charles V by Jean de Vaudetar

Tempera and gold on linen; 460 × 340 mm
Meermanno-Westreenianum Museum, The Hague: Ms. 10 B 23, fols. 1 v., 2



Lorenzo Monaco (16)

The Miracle of the Loaves and Fishes in an initial L

Ink on parchment; 316 × 231 mm
The Royal Museum of Fine Arts, Copenhagen: TU 3,53



Lorenzo Monaco (17)

Christ Washing the Feet of the Apostles in an Initial D

Ink on parchment; 296 × 235 mm
The Royal Museum of Fine Arts, Copenhagen: TU 3, 52



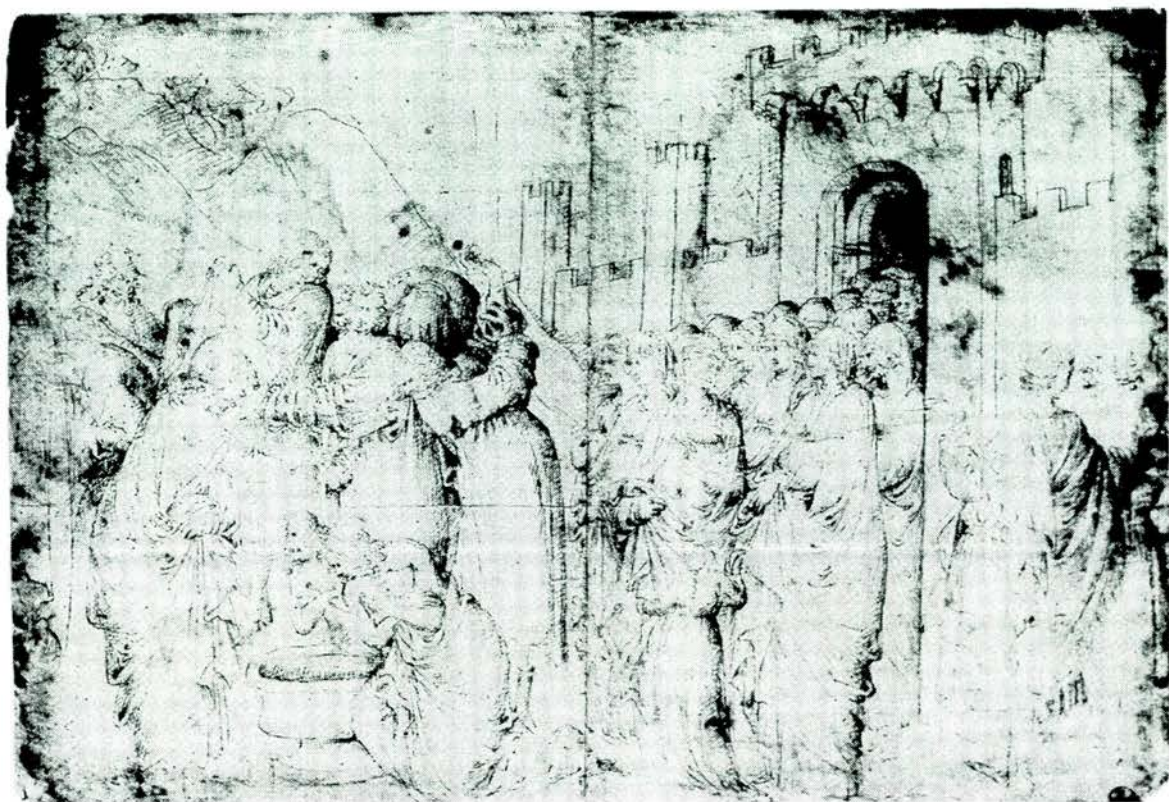
Lorenzo Monaco (18)

Christ in the House of Martha and Mary

Ink on parchment; 162 × 250 mm

Biblioteca Apostolica Vaticana, Vatican City: Cod. Rossiano

1192. 37



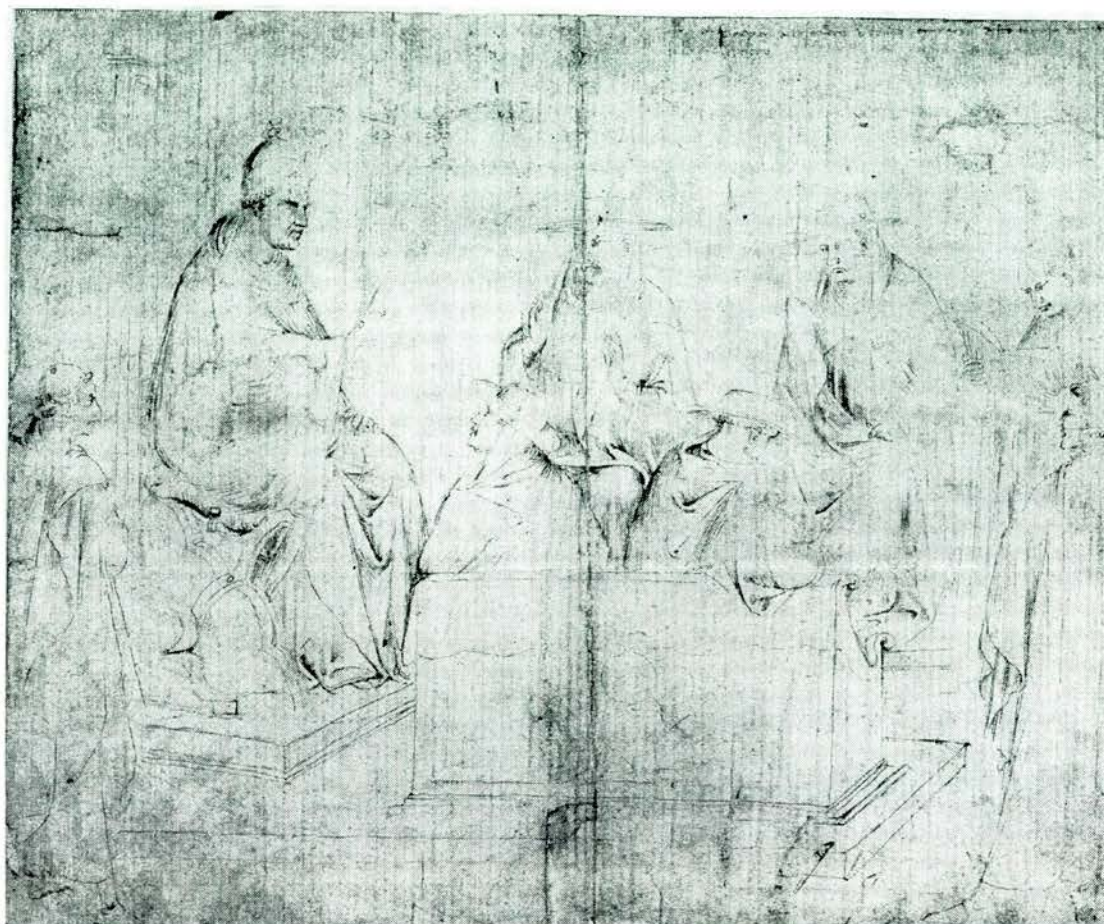
Parri Spinelli (19)

Baptismal Scene

Pen and black ink; 281 × 405 mm

The sheet has been cropped, most noticeably to its left-hand side.

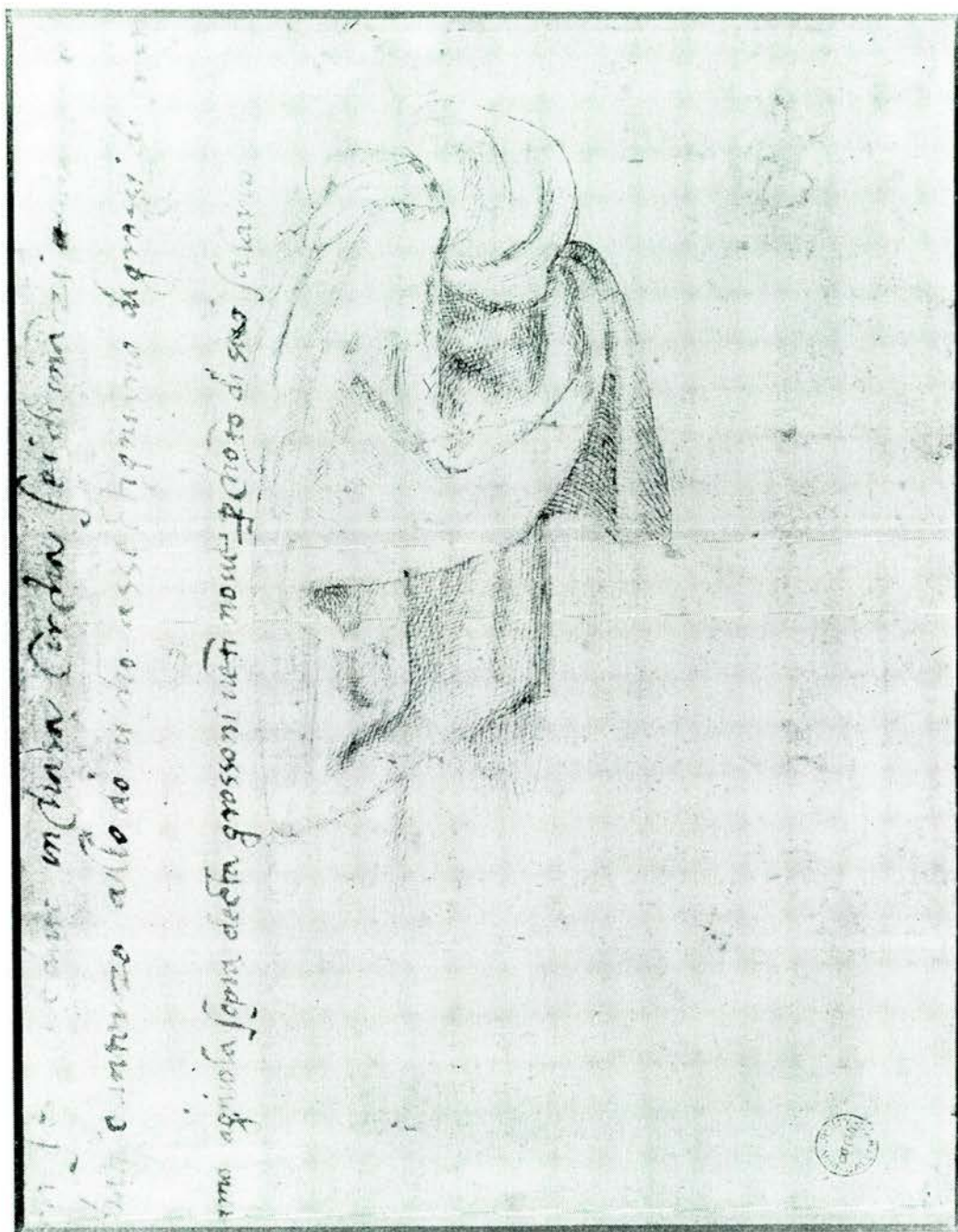
Uffizi Museum, Florence: 8E



Spinello Aretino (20)

Pope Alexander in Council

Pen and brown ink; 278.1 × 354.6 mm
Pierpont Morgan Library, New York: Acc. no. I, 1a



Jacopo della Quercia (21)

Study of Drapery

Pen and brown ink; 204 × 156 mm
Ashmolean Museum, Oxford: KP 42



Jacopo della Quercia (22)

Madonna and Child between a Saint and a Donor

Pen and brown ink on vellum; 175 × 235 mm
Albertina Museum, Vienna: Inv. 9



Jacopo della Quercia (23)

Standing Man in Cloak

Pan and black ink; 230 × (about) 830 mm
Uffizi Museum, Florence 16096 F



Follower of Michelangelo (24)

Head of a Laughing Boy

Red chalk; 204 × 156 mm
Ashmolean Museum, Oxford: KP 375



Michelangelo Buonarroti (25)

Study after Masaccio's Consecration of the Carmine

Pen and brown ink; 290 × 197 mm
Albertina Museum, Vienna: Inv. 116



Michelangelo Buonarroti (26)

Study after Giotto's Ascension of Saint John the Evangelist

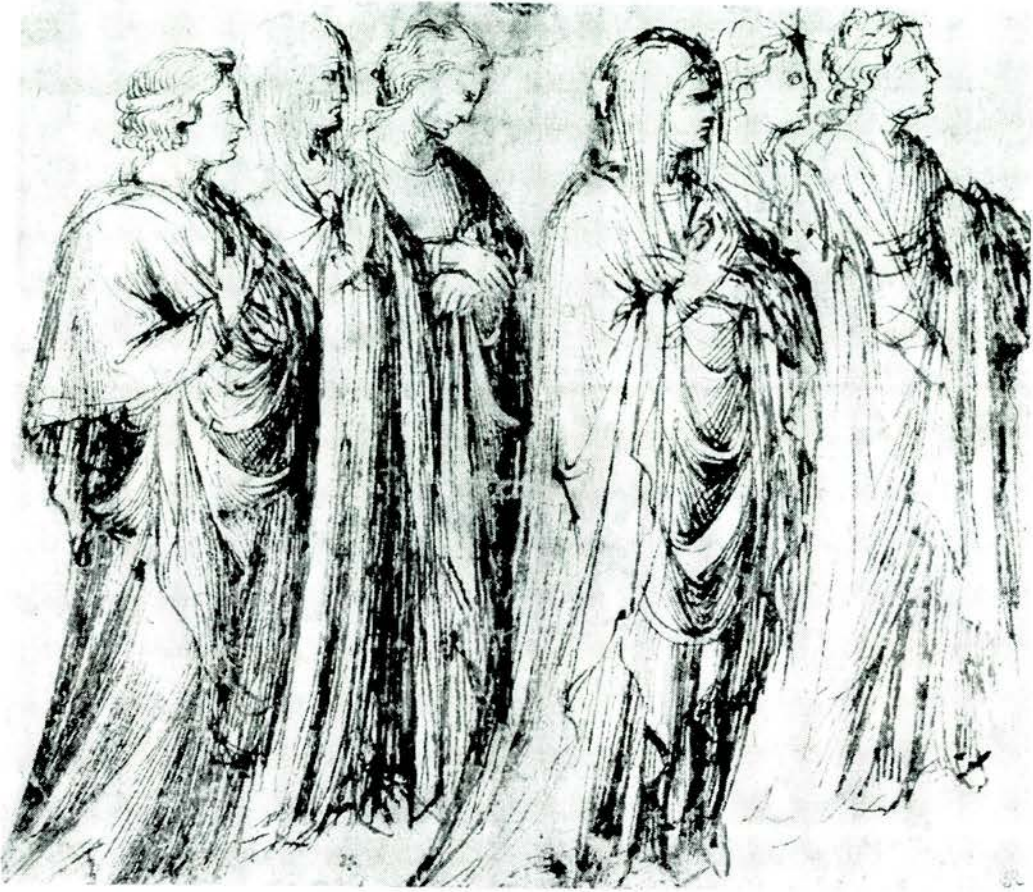
Pen and brown ink over stylus preparation; 315 × 205 mm
Louvre Museum, Paris: Inv. 706r



Michelangelo Buonarroti (27)

An Old Woman resembling a Witch with a Boy standing beside her

Pen and brown ink, over very faint sketch in black chalk; 329 × 192 mm
Ashmolean Museum, Oxford: KP 32.



Circle of Ghiberti (28)

Studies for Six Walking Figures (recto)

Pen and brown ink; 150 × 171 mm
British Museum, London: 1860-6-16-52



Circle of Ghiberti (29)

Lower Part of a Seated Figure (verso of 28)

Pen and brown ink; 150 × 171 mm
British Museum, London: 1860-6-16-52



Circle of Ghiberti (30)

Standing Evangelist (recto)

Drawn with the point of a brush in brown and white pigment on olive-green prepared paper; 249 × 136 mm
British Museum, London: 1895-9-15-439



Circle of Ghiberti (31)

Nude Woman Holding Two Torches (verso of 30)

Drawn with the point of a brush in brown and white pigment on olive-green prepared paper; 249 × 136 mm
British Museum, London: 1895-9-15-439



Donatello (32)

David Triumphant (verso of 5)

Pen and brown ink with the group of children gone over in deep black with thicker lines;

286 × 202 mm

Musée des Beaux-Arts, Rennes: Inv. C. 3-2



Michelangelo (33)

A Battle-Scene; Two Figures, Standing; Handwriting

Pen and brown ink; 186 × 183 mm
British Museum, London: 1895-9-15-496



Circle of Raphael (34)

Heart of the Miser (after Donatello)

Pen and brown ink; 188 × 245 mm (cut irregularly)

Biblioteca Reale, Turin: 15750



Circle of Raphael (35)

Miracle of the New Born Baby who proves the Innocence of his Mother

Pen and brown ink; 291 × 417 mm (cut irregularly)
Biblioteca Reale, Turin: 15747



Circle of Raphael (36)

Heart of the Miser (after Donatello)

Pen and brown ink, with traces of black chalk; 239 × 184 mm
British Museum, London: Ff 1-1



Circle of Raphael (37)

Heart of the Miser (after Donatello)

Pen and brown ink; 218 × 281 mm
Uffizi Museum, Florence: 1484 E



Circle of Donatello (38)

Four Grieving Figures

Pen and brown ink on grey paper (rather worn and of poor quality);

246 × 415 mm

Louvre Museum, Paris: R.F. 429



Circle of Donatello (39)

Mourning Women with John supporting the Mother of God

Pen and brown ink; 338 × 271 mm
Louvre Museum, Paris: Inv. 1150



Donatello (40)

Study of a Male Figure

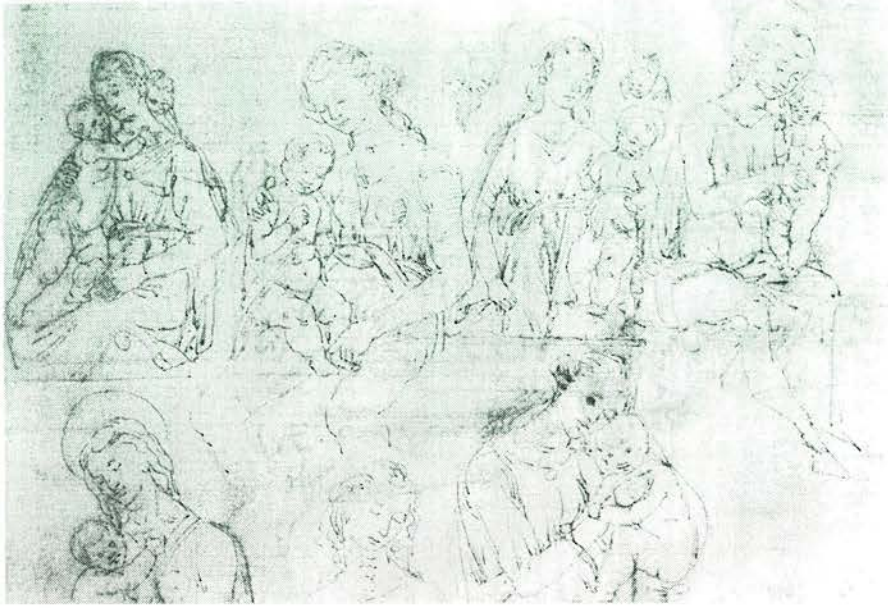
Pen and brown ink; 288 × 105 mm
Private Collection



Antonio Rossellino (11)

Studies of the Virgin and Child (recto)

Pen and black ink; 267 × 192 mm
Uffizi Museum, Florence: 38F



Desiderio da Settignano (42)

Studies of Virgin and Child (recto)
Virgin and Child Enthroned (verso)

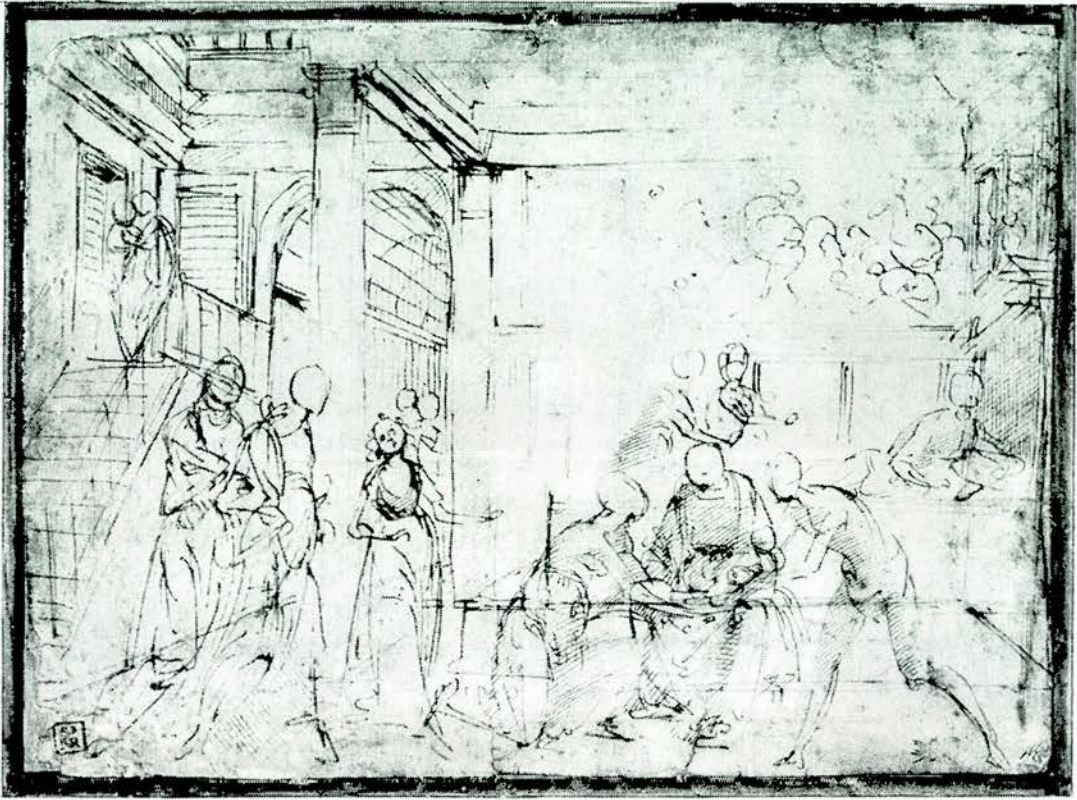
Pen and black ink over a stylus underdrawing; 193 × 278 mm
J. Paul Getty Museum, Malibu



Domenico Ghirlandaio (43)

Standing Figure of a Lady

Pen and brown ink; 214 × 117 mm
British Museum, London: 1895-9-15-451



Domenico Ghirlandaio (44)

Birth of the Virgin

Pen and brown ink; 215 × 285 mm, maximum measurements: edges
irregularly trimmed and left corners torn
British Museum, London: 18 66-7-14-9



Domenico Ghirlandaio (45)

The Naming of Saint John

Pen and brown ink; 185 × 263 mm, parts of the lower half of the right edge of the sheet
have been torn and made up; trimmed on the left

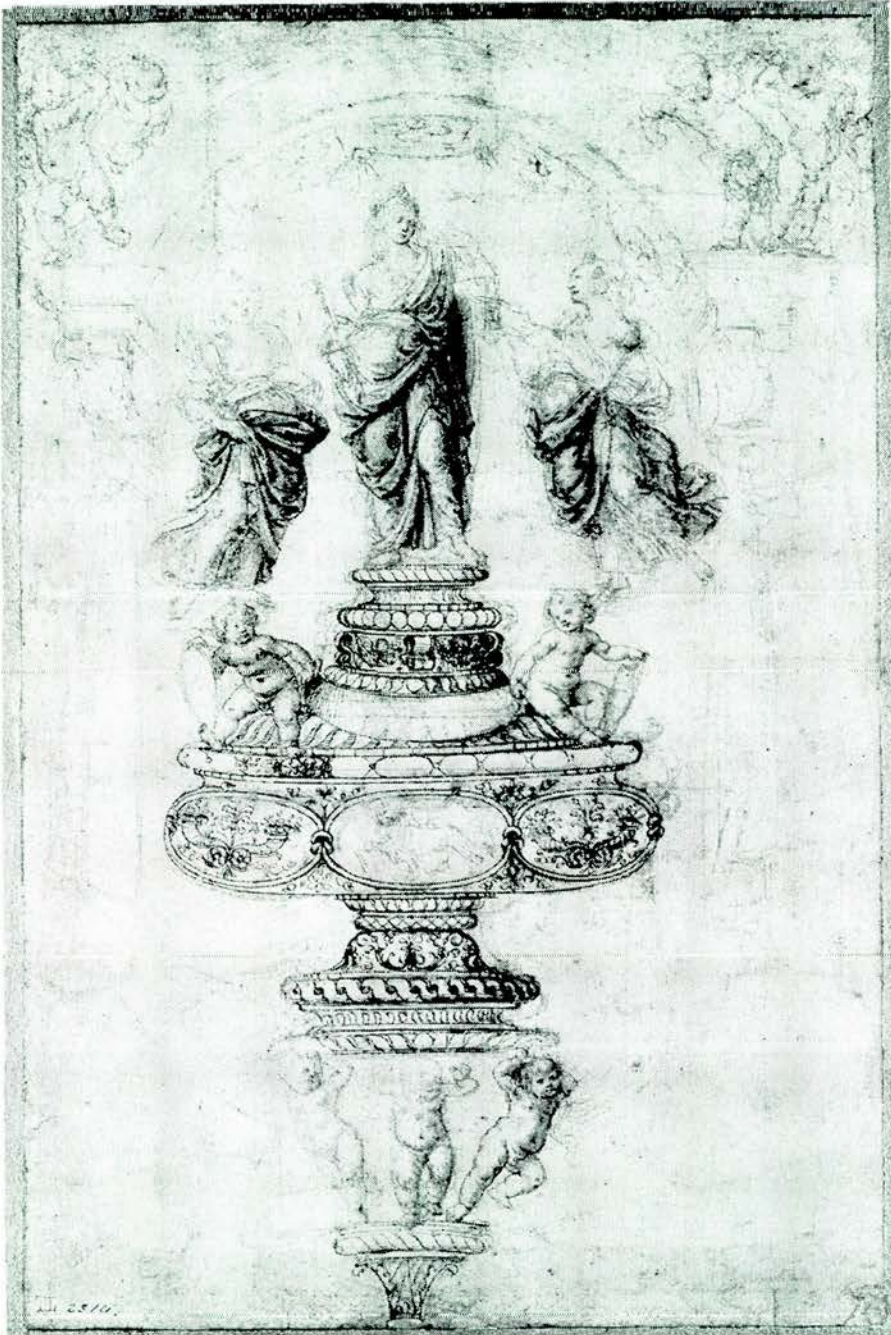
British Museum, London: 1895-9-15-452



Andrea del Verrocchio (46)

Studies of a Child (verso)

Pen and brown ink; 145 × 200 mm
Louvre Museum, Paris: 2. R. F. *verso*



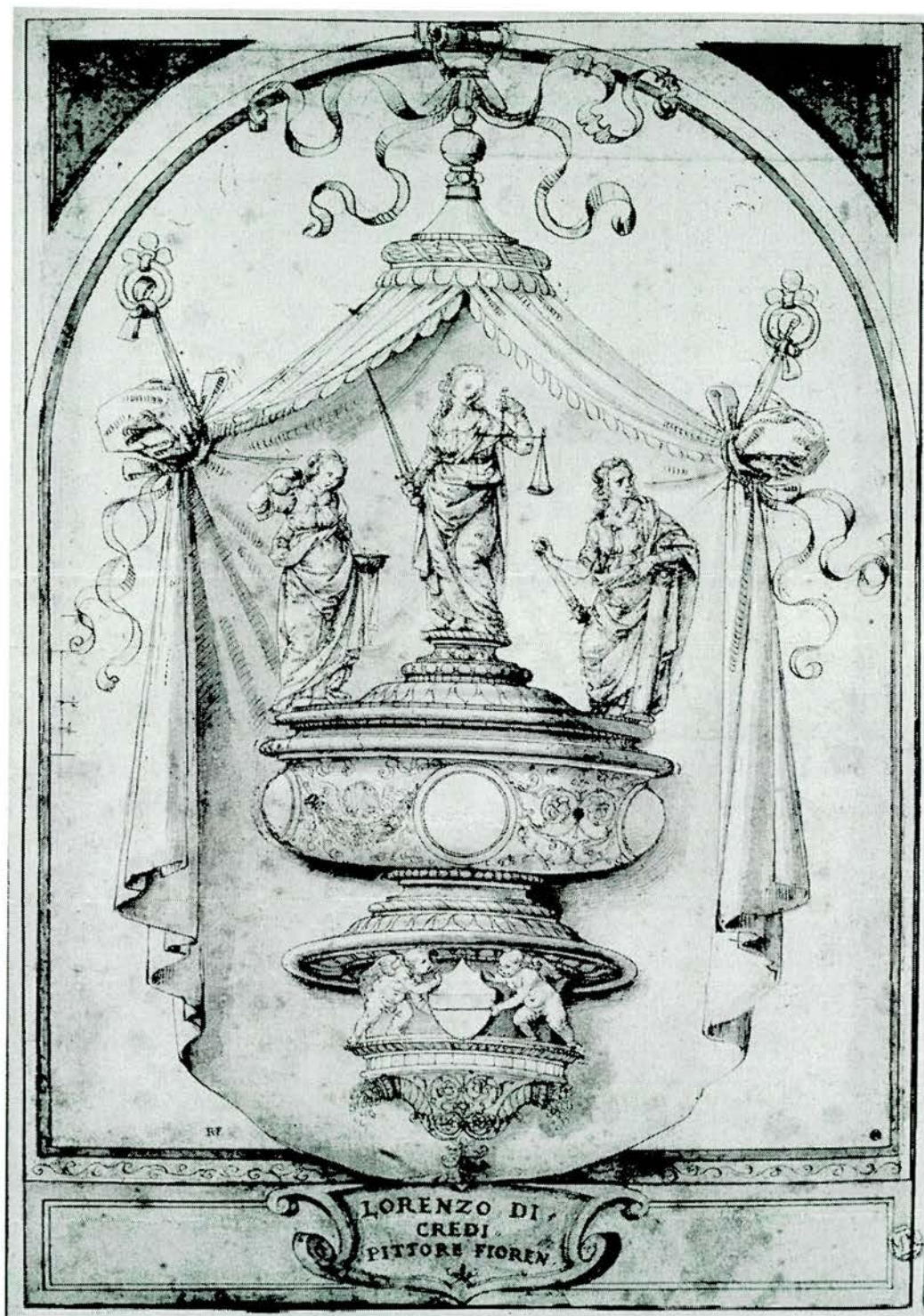
Andrea del Verrocchio (47)

Design for a Monument in the form of a Covered Bowl

Black lead pencil, partly gone over in pen and black ink and wash;

273 × 175 mm

Victoria and Albert Museum, London: 2314



Lorenzo di Credi (48)

Study for a Monument

Pen and brown ink, some parts overdrawn in black ink; 230 × 350 mm
Louvre Museum, Paris: Inv. 1788



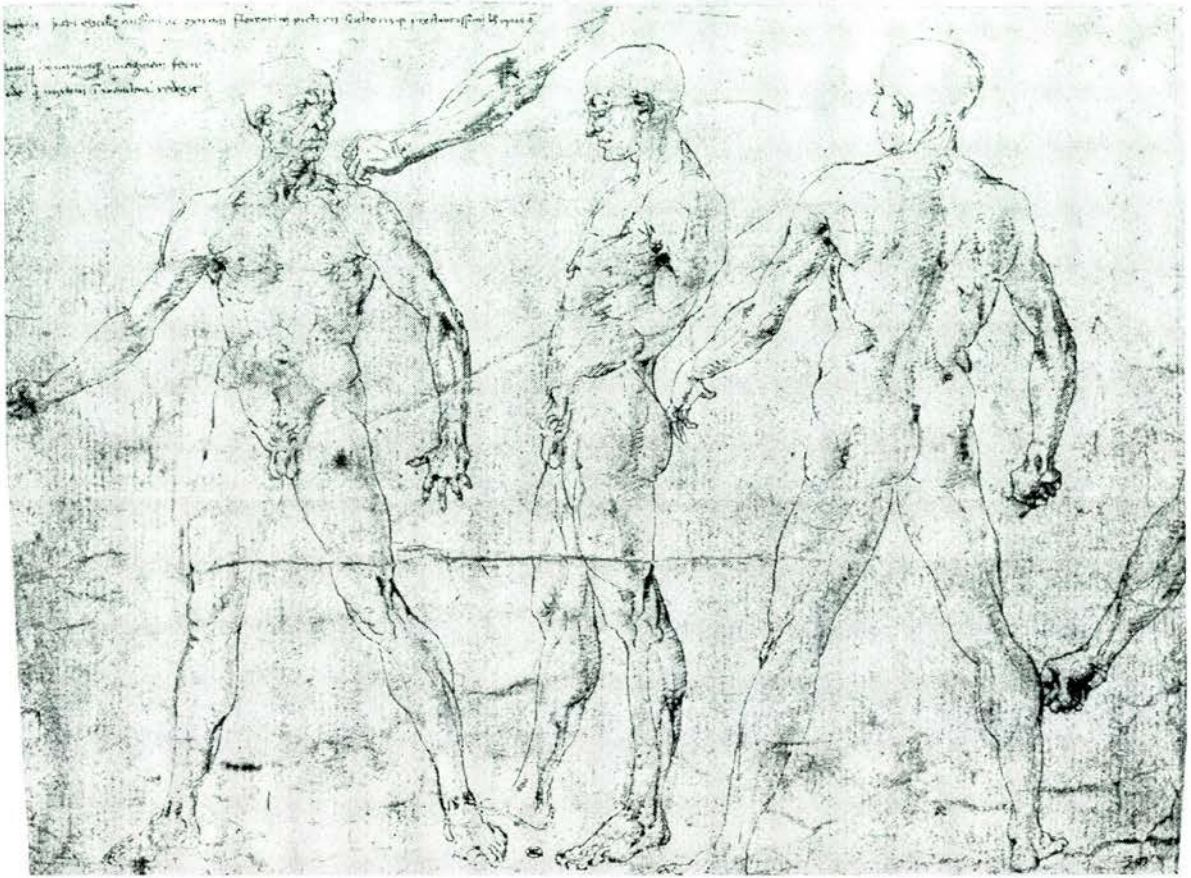
Anonymous (49)

Design for a Vase with a Two-Handled Cover

Pen and ink and blue wash; 419 × 248 mm

The drawing has been cut along the outlines and pasted onto another sheet.

Victoria and Albert Museum, London: 225



Antonio del Pollaiuolo (50)

Nude Man Seen from the Front, Side and Back

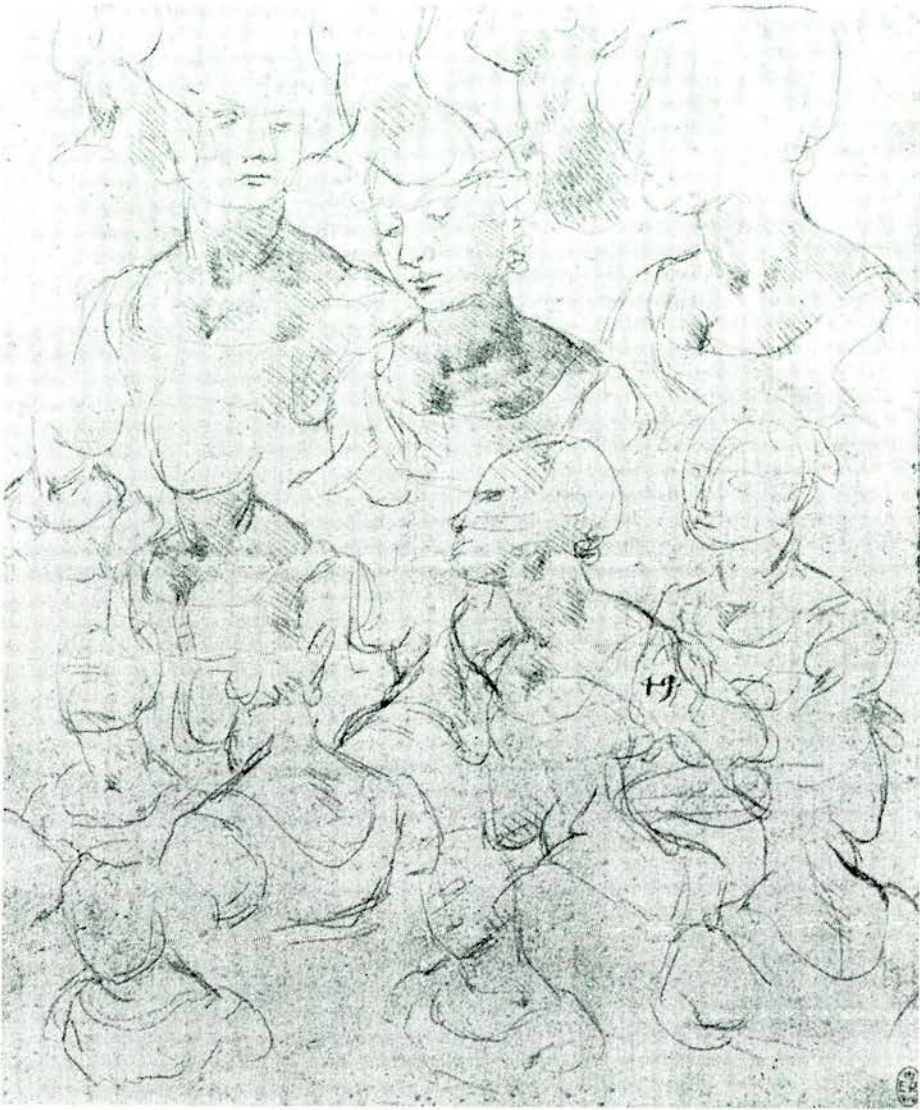
Pen and brown ink with light wash; 265 × 360 mm (at widest point)
Louvre Museum, Paris: 1486



Copy after Antonio del Pollaiuolo (51)

Nude Man Seen from the Front, Side and Back

Pen and Brown ink on parchment; 255 × 281 mm
British Museum, London: 1885-5-9-1614



Leonardo da Vinci (52)

Studies for a Woman's Head and Bust

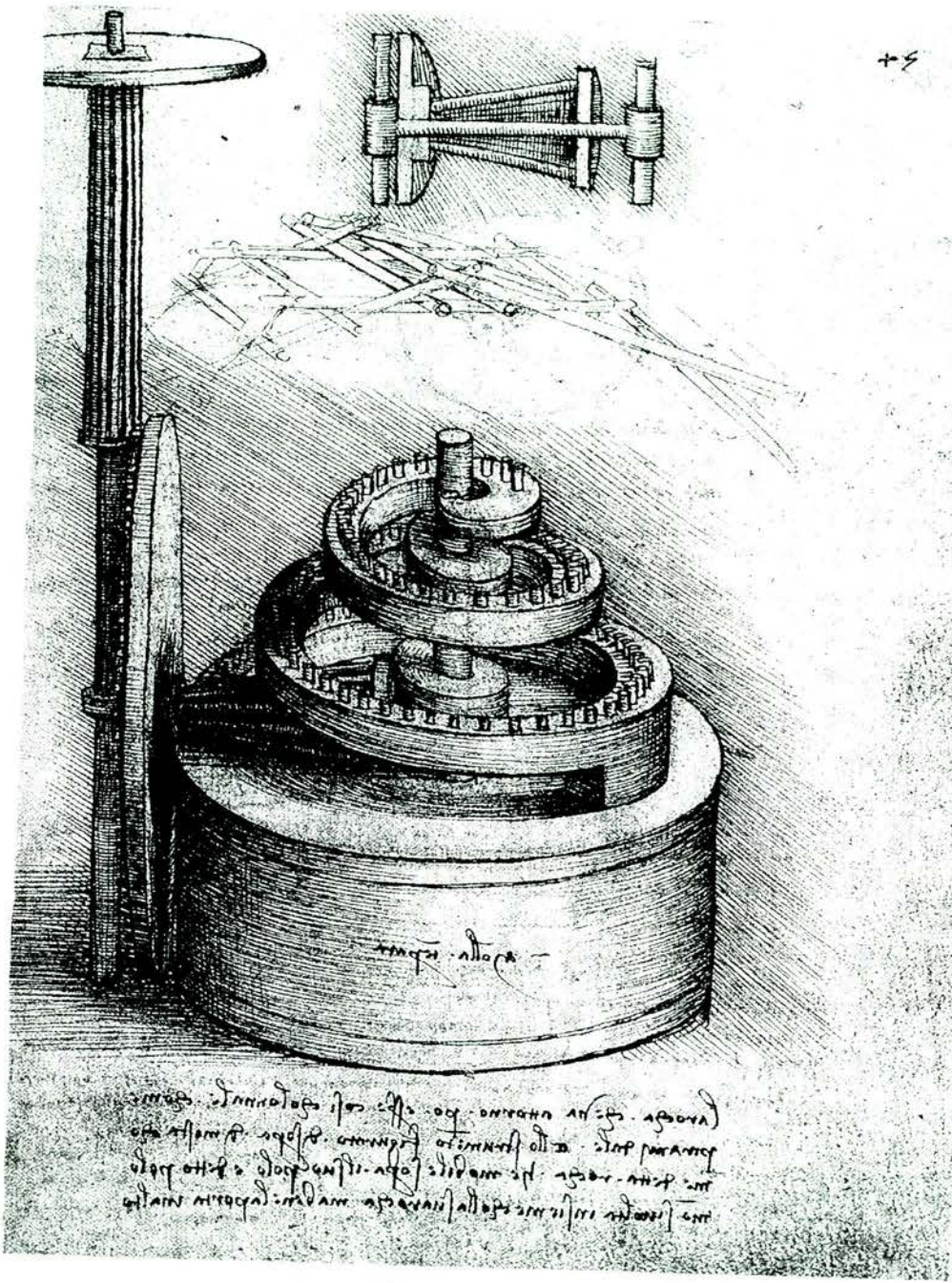
Silverpoint on pink prepared paper; 232 × 190 mm
Royal Collection, Windsor: 12513



Michelangelo (53)

Study for the Right Arm of Night

Red chalk with touches of black; 258 × 332 mm
Ashmolean Museum, Oxford: KP 309v

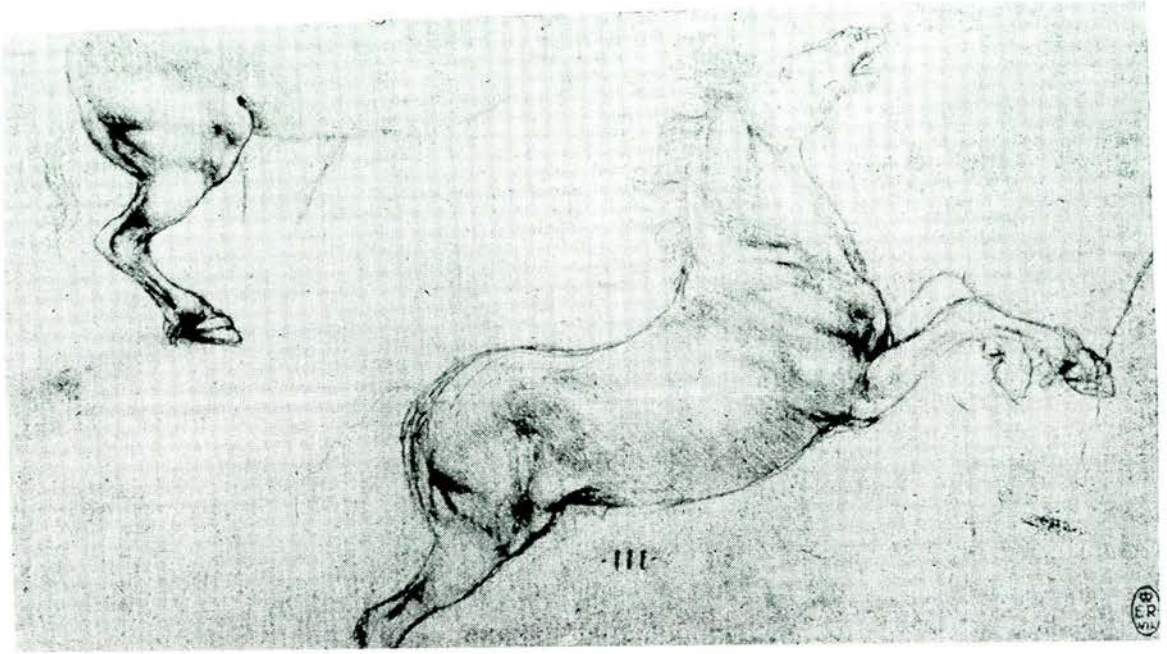


Leonardo da Vinci (54)

Volute Gear for a Barrel Spring

Pen and brown ink; 220 × 300 mm

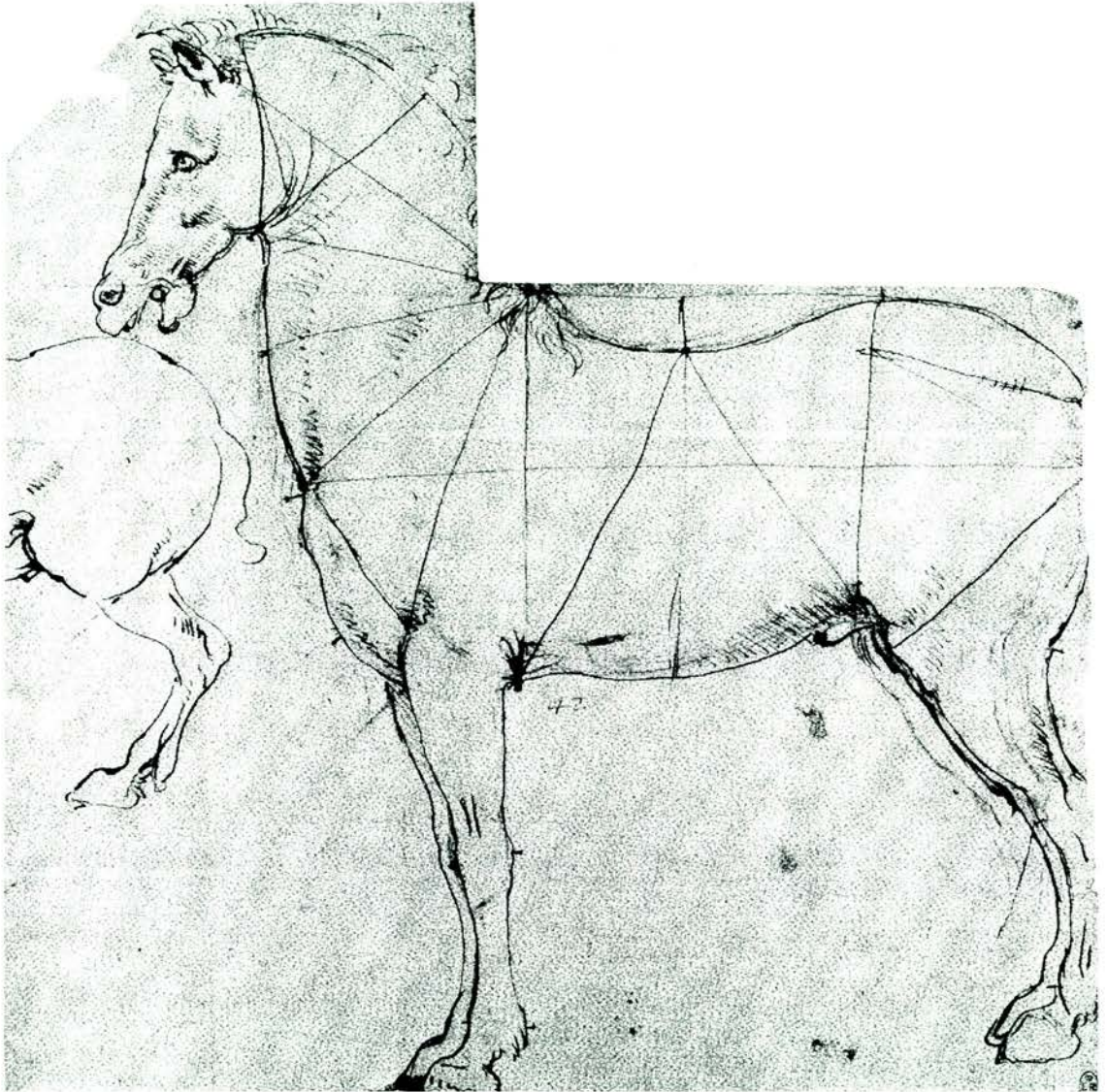
Biblioteca Nacional, Madrid: Codex I; Ms. 8937; ff. 44v - 45r



Leonardo da Vinci (55)

Studies of a Horse

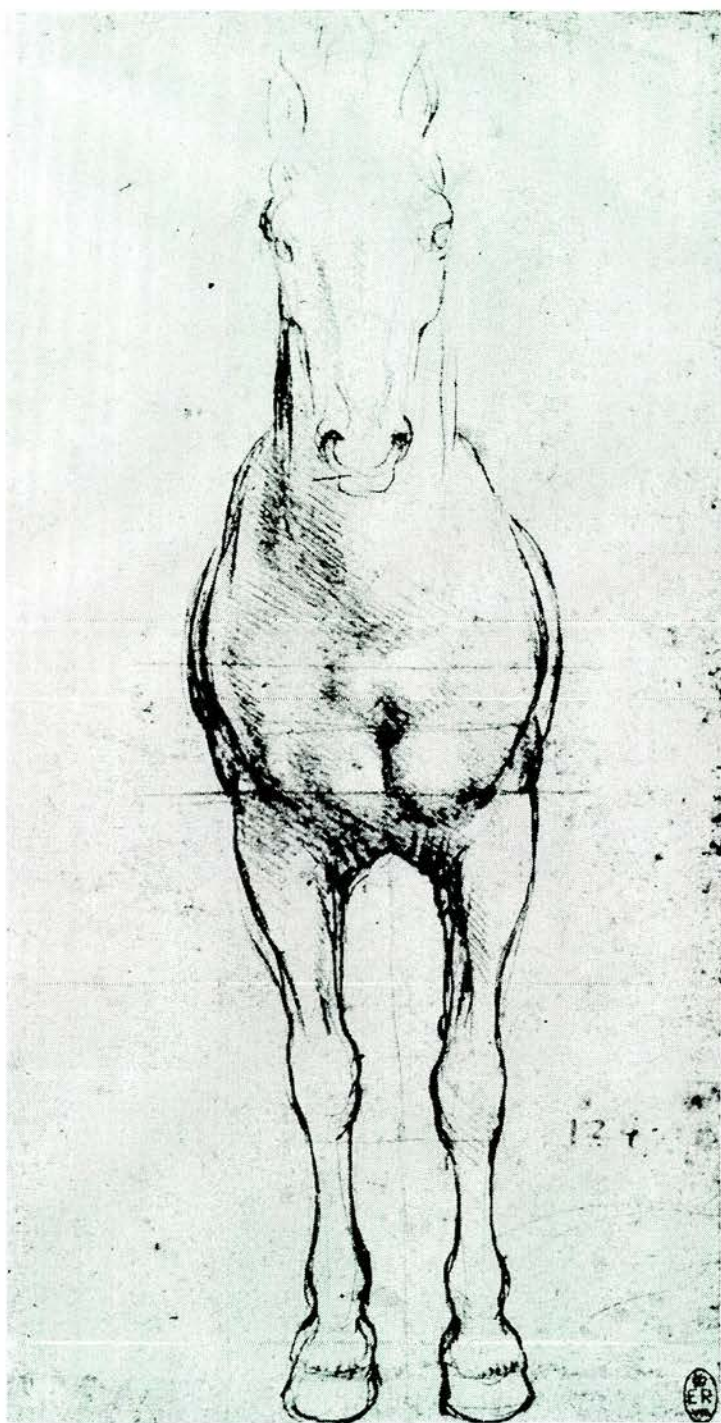
Silverpoint on pinkish-buff prepared paper; 114 × 196 mm
Royal Collection, Windsor: RL 12315



Leonardo da Vinci (56)

Studies of a horse

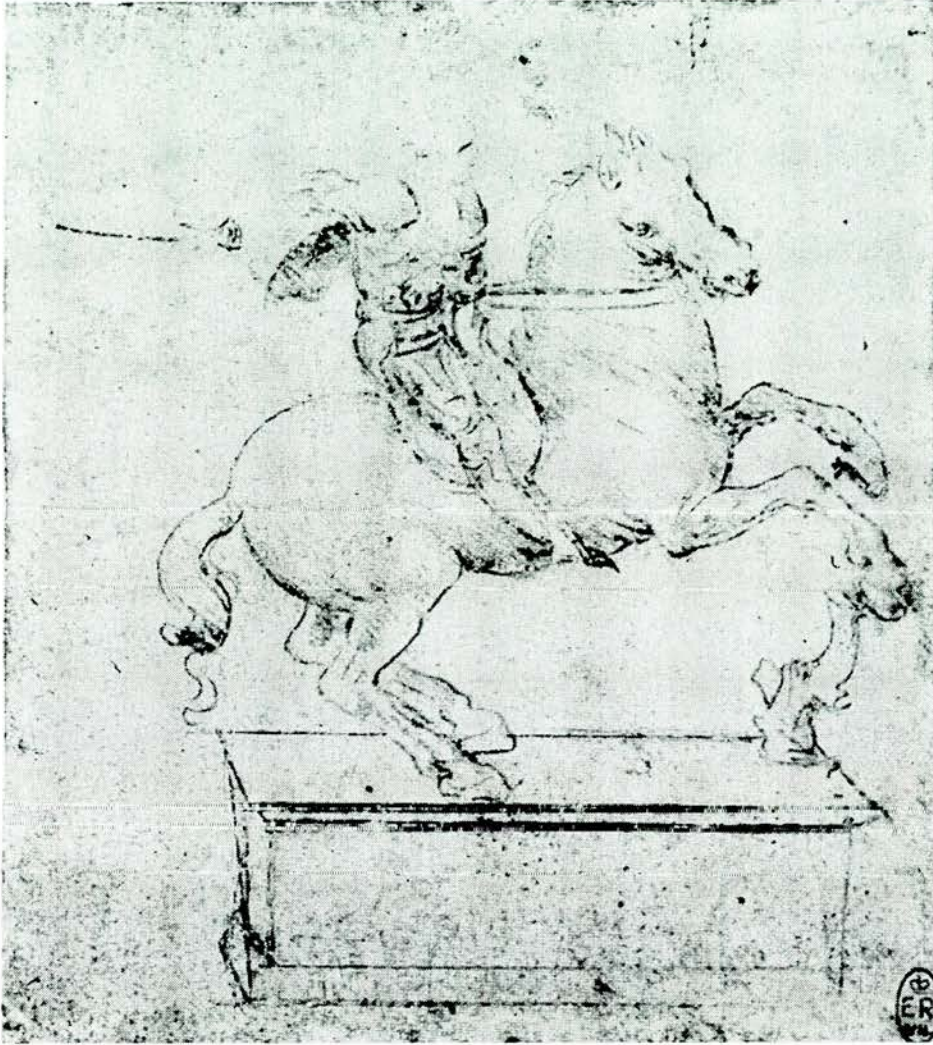
Pen and ink over black chalk; 298 × 290 mm
Royal Collection, Windsor: RL 12318



Leonardo da Vinci (57)

Study of a Horse

Silverpoint on blue prepared paper; 221 × 110 mm
Royal Collection, Windsor: RL 12290



Leonardo da Vinci (58)

Figure on Horseback Supported by Tree Trunk

Silverpoint on blue-prepared paper; 116 × 103 mm

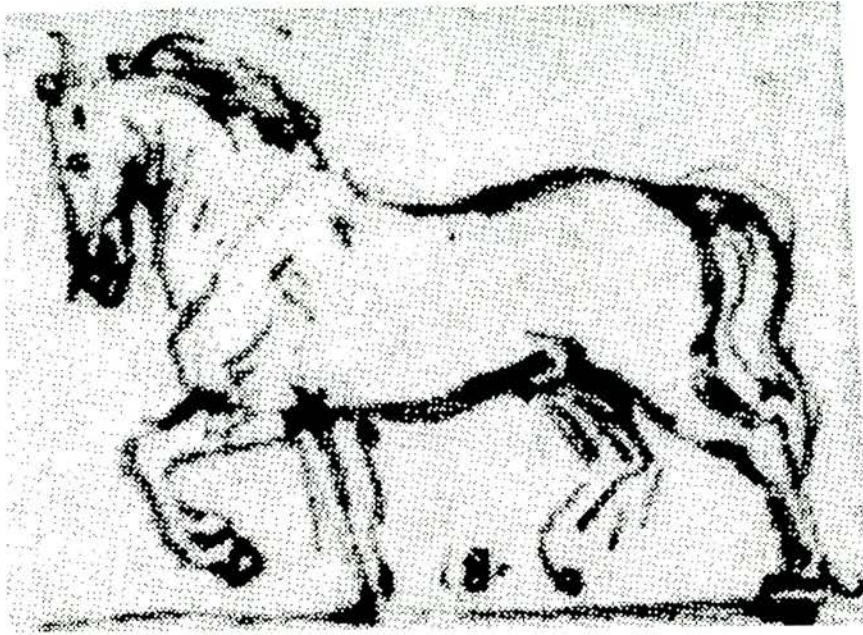
Royal Collection, Windsor: RL 12357



Leonardo da Vinci (59)

Figure on Horseback Supported by a Prostrate Foe

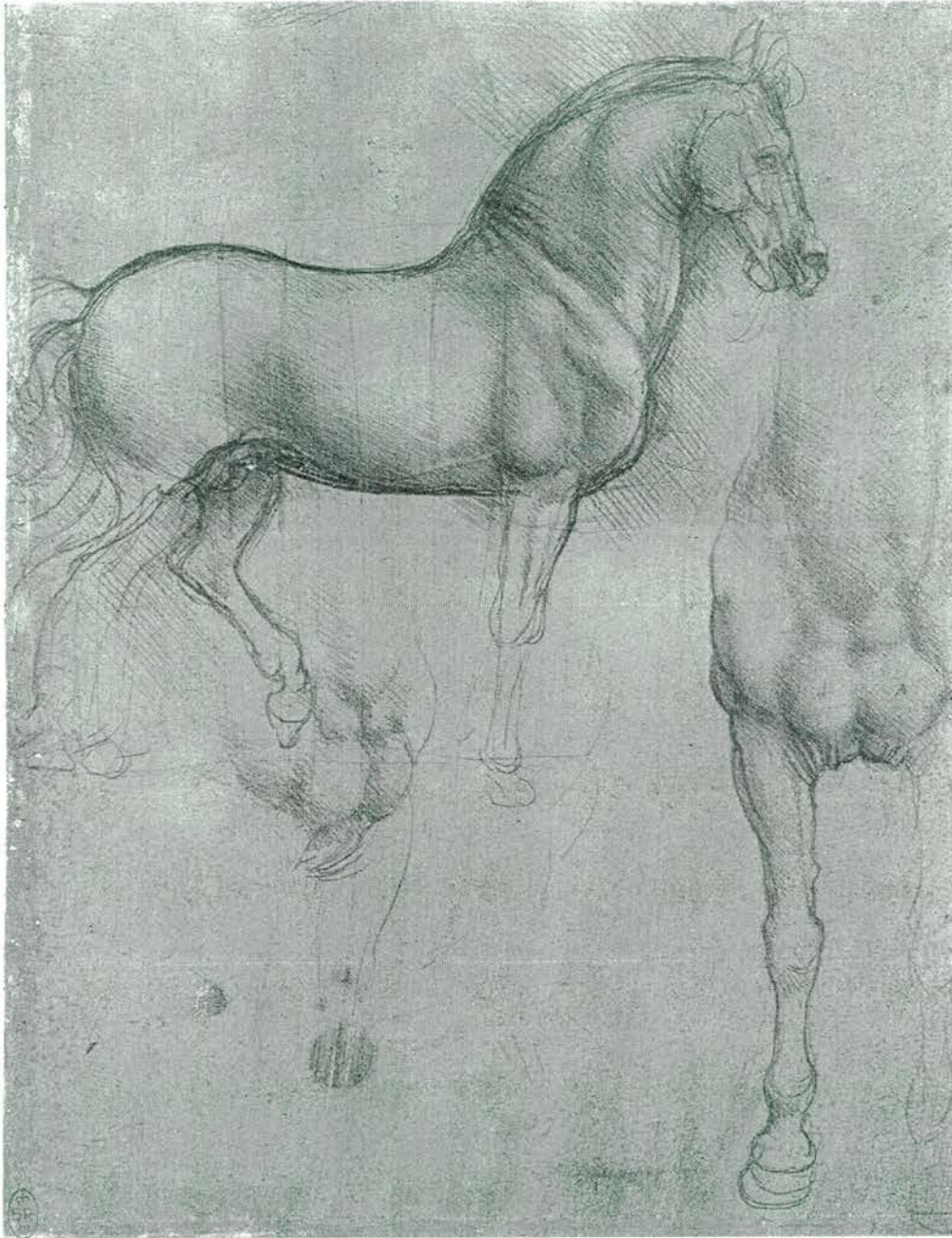
Silverpoint on blue-prepared paper; 148 × 185 mm
Royal Collection, Windsor: RL 12358 *recto*



Leonardo da Vinci (60)

Study for an Equestrian Monument

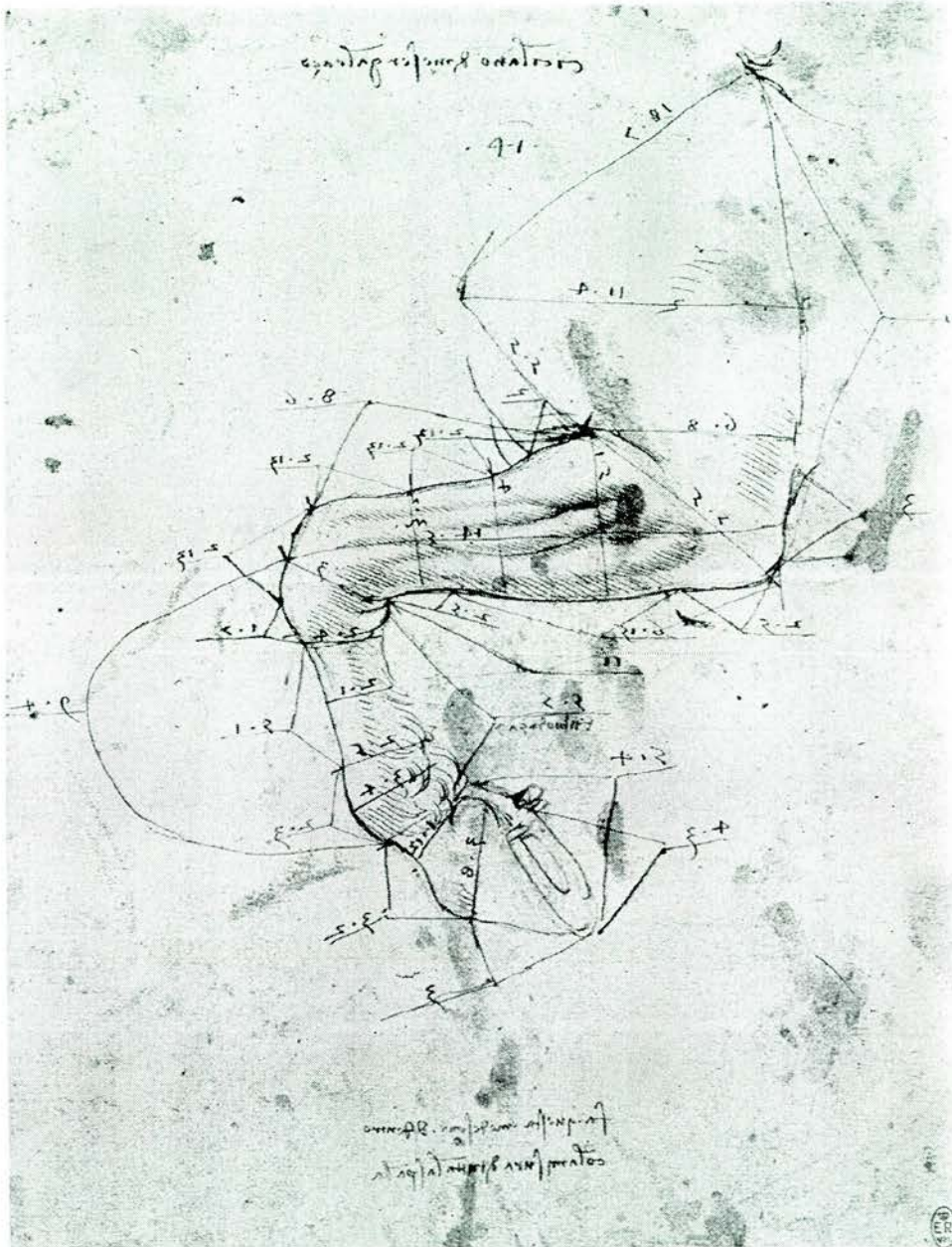
Black chalk on yellow-brownish prepared paper; 210 × 124 mm
Royal Collection, Windsor: RL 12354



Leonardo da Vinci (61)

Study of a Horse

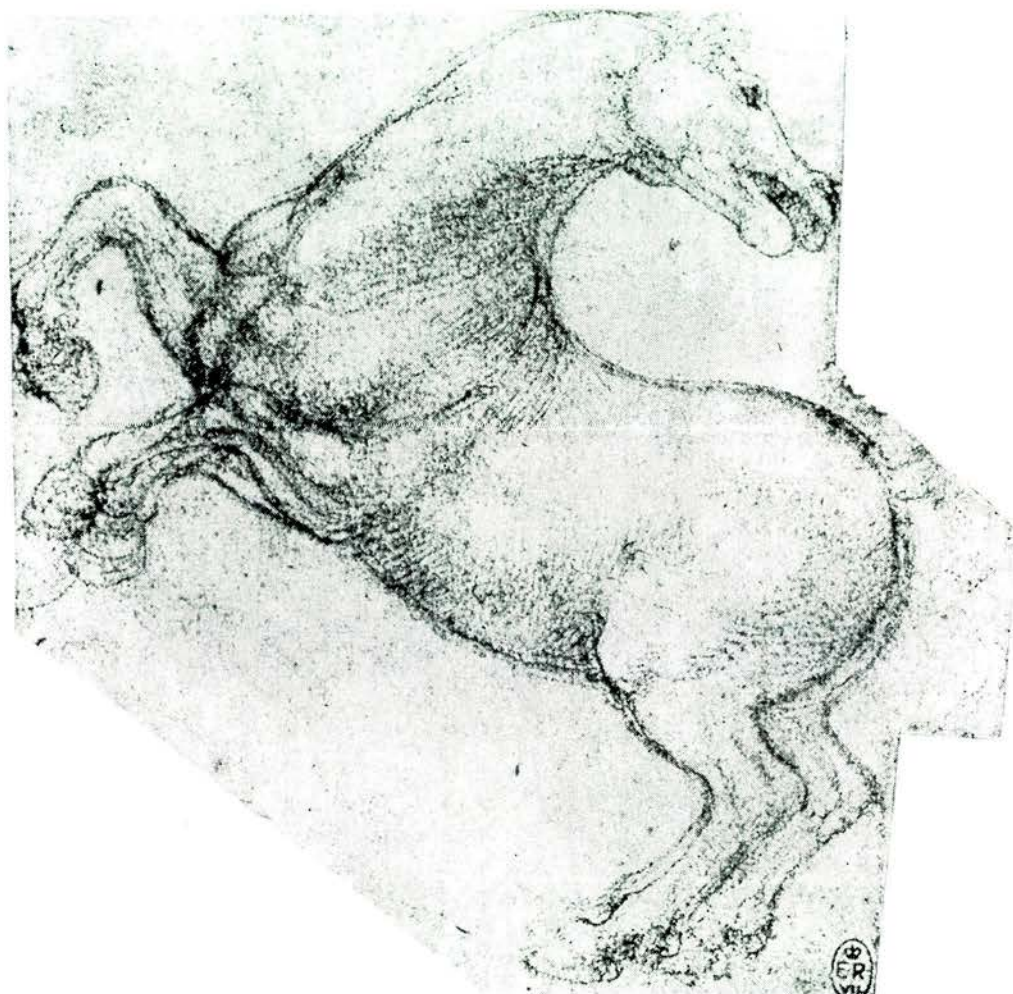
Silverpoint on blue prepared paper; 214 × 160 mm
Royal Collection, Windsor, RL 12321



Leonardo da Vinci (62)

Study of a Horse

Pen and brown ink; 250 × 187 mm
Royal Collection, Windsor: RL 12294 *recto*



Leonardo da Vinci (63)

Study for a Horse Rearing to the Left

Black chalk; 131 × 127 mm (cut irregularly)

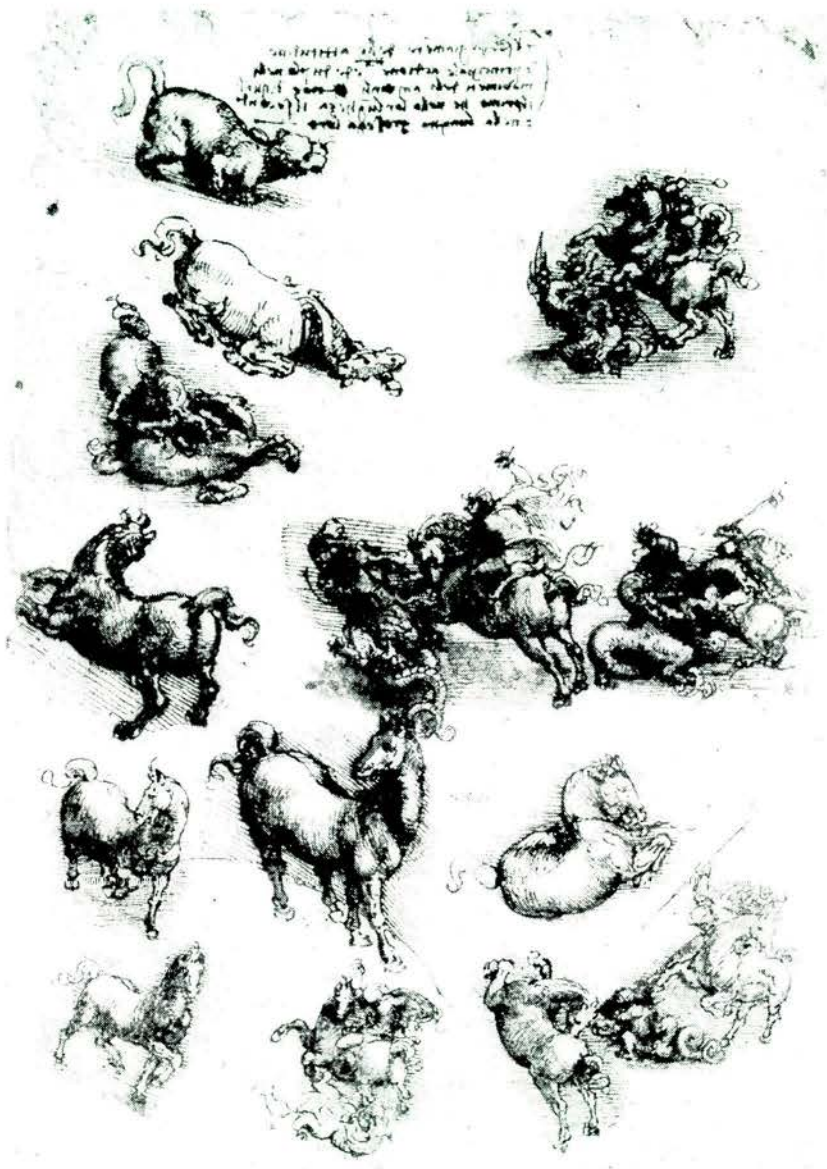
Royal Collection, Windsor: RL 12334



Leonardo da Vinci (64)

Studies of Machinery: Horses; Nude Men; Study of an Angel

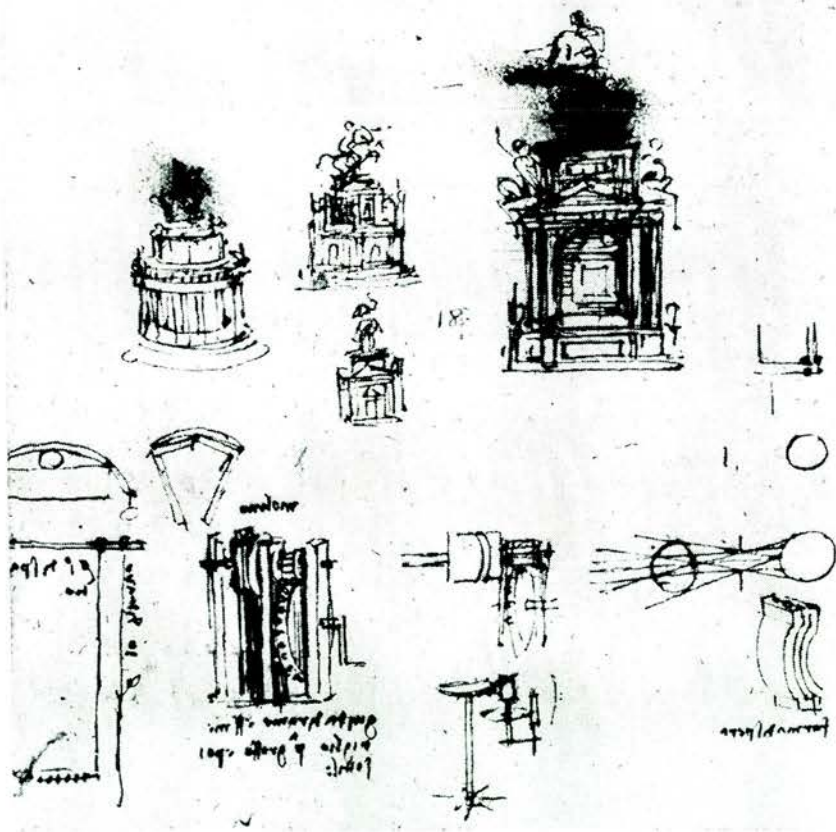
Pen and sepia on greyish paper; 210 × 283 mm
Royal Collection, Windsor: RL 12328 *verso*



Leonardo da Vinci (65)

Studies of Various Animals

Pen and ink over faint traces of black chalk; 298 × 212 mm
Royal Collection, Windsor: RL 12331



Leonardo da Vinci (66)

Study for an Equestrian Monument

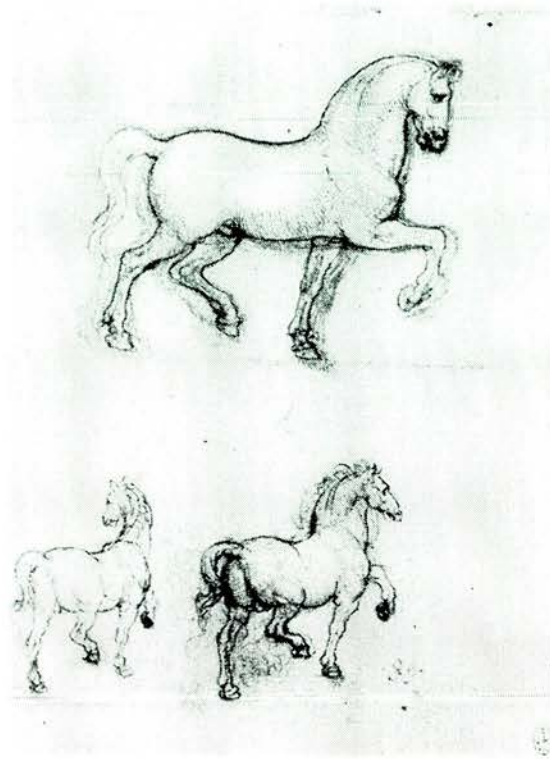
Pen and black ink on coarse grain paper; 278 × 196 mm
Royal Collection, Windsor: RL 12353



Leonardo da Vinci (67)

Studies for an Equestrian Monument

Pen and bistre on coarse greyish paper; 280 × 198 mm
Royal Collection, Windsor: RL 12355



Leonardo da Vinci (68)

Studies of Horses (recto)
Studies of Horses (verso)

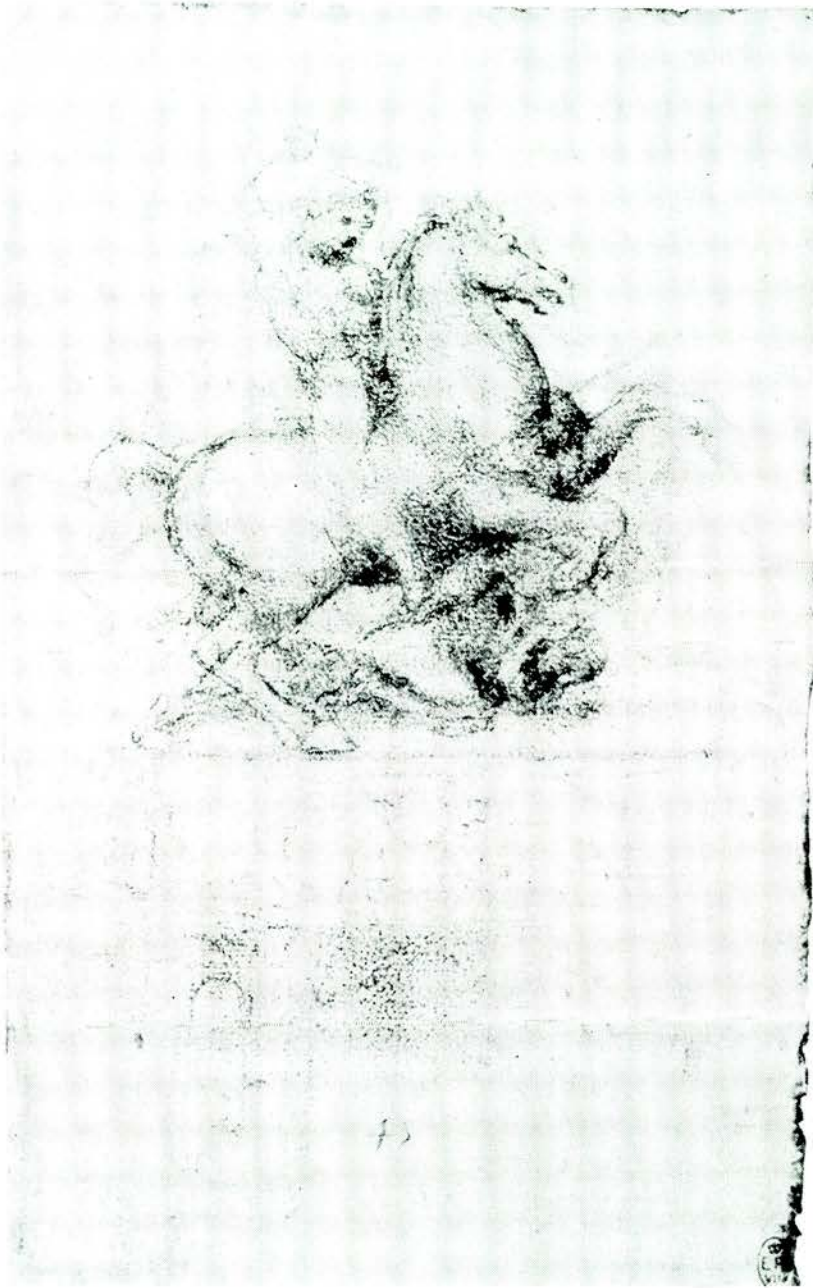
Black chalk gone over with pen and ink; 203 × 143 mm
Royal Collection, Windsor: RL 12344



Leonardo da Vinci (69)

Studies of Horses

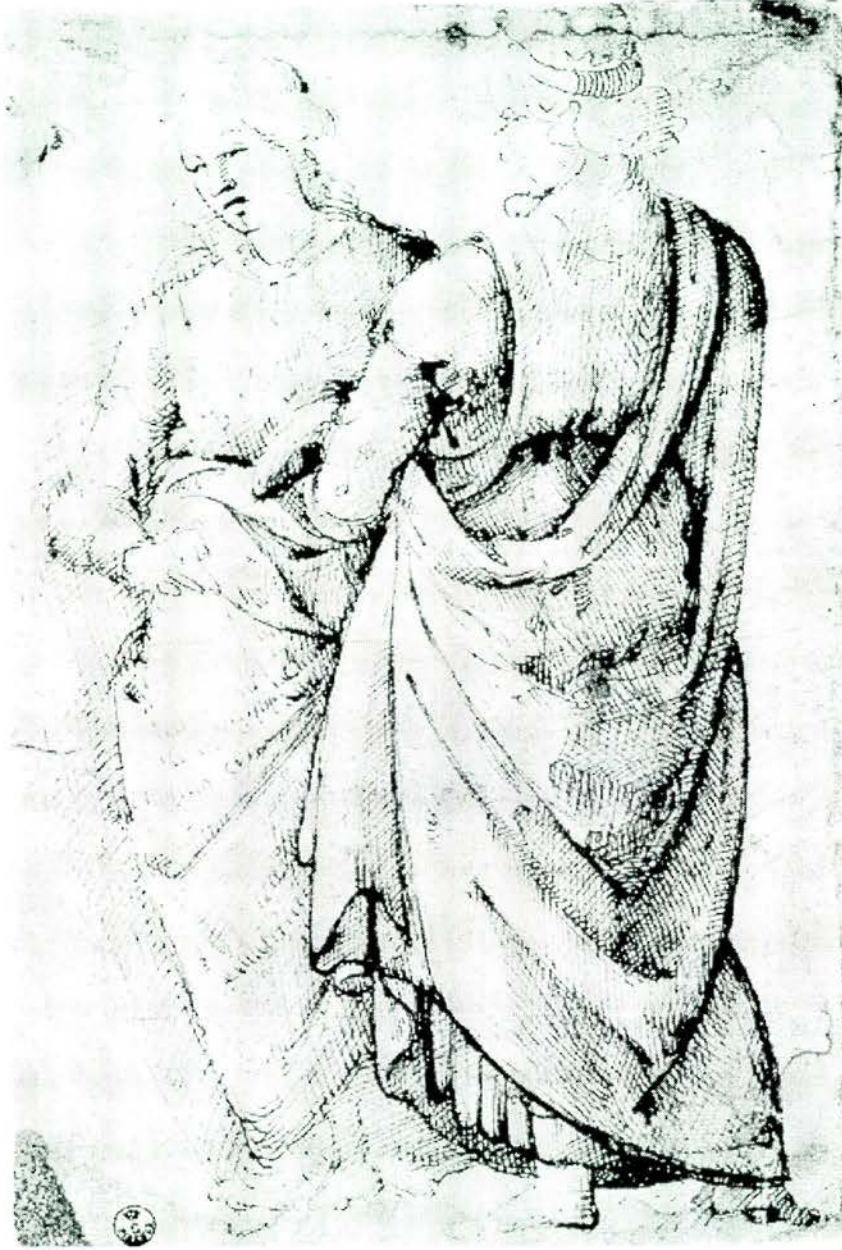
Black lead on paper covered with a white preparation; 224 × 160 mm
Royal Collection, Windsor: RL 12360



Leonardo da Vinci (70)

Study for an Equestrian Monument

Black chalk on yellow-brownish prepared paper; 210 × 124 mm
Royal Collection, Windsor: RL 12354



Ghirlandaio (71)

Two Figures

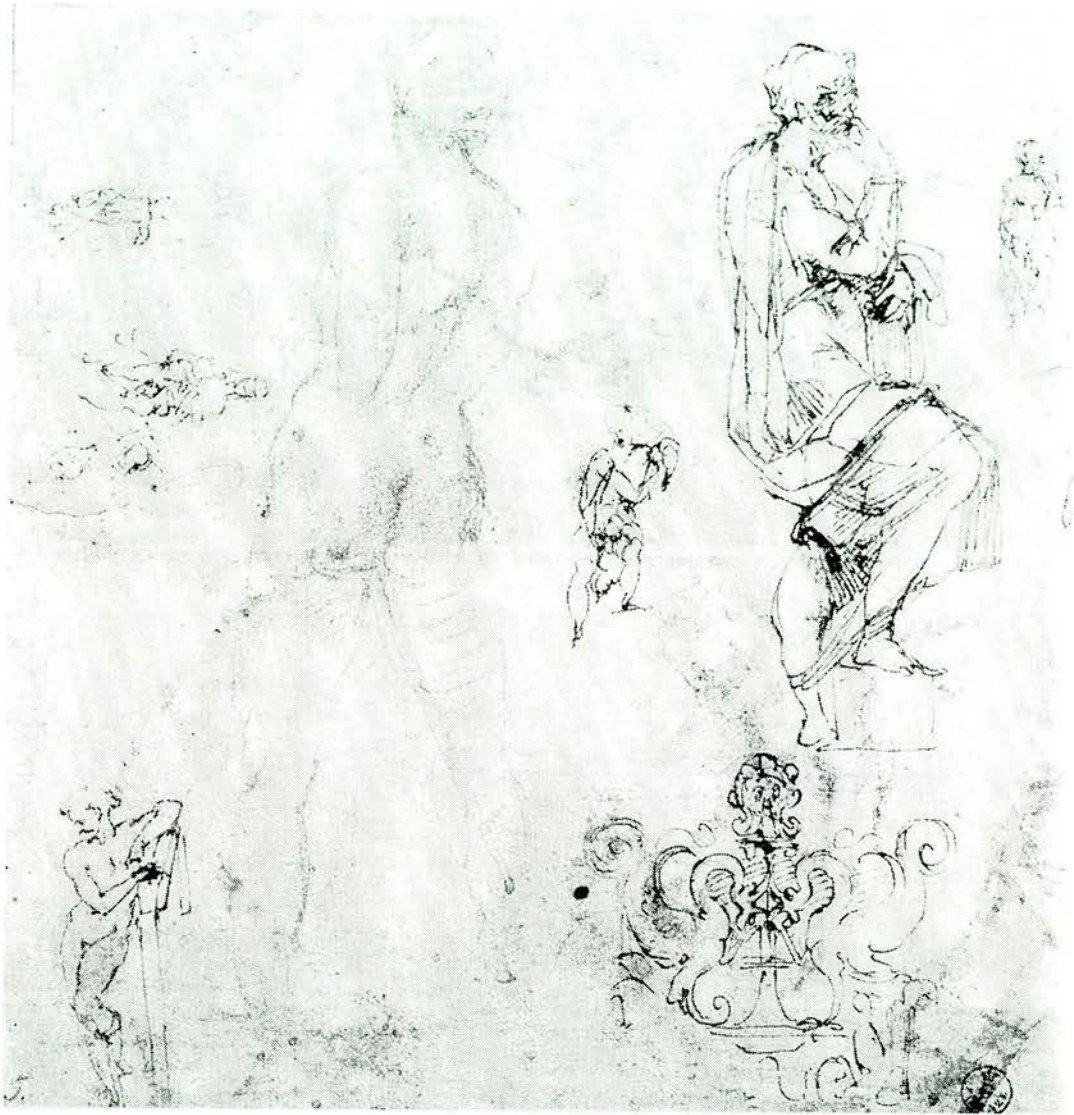
Pen and brown ink; 227 × 142 mm
Uffizi Museum, Florence: 294E



Michelangelo (72)

Kneeling Nude Girl

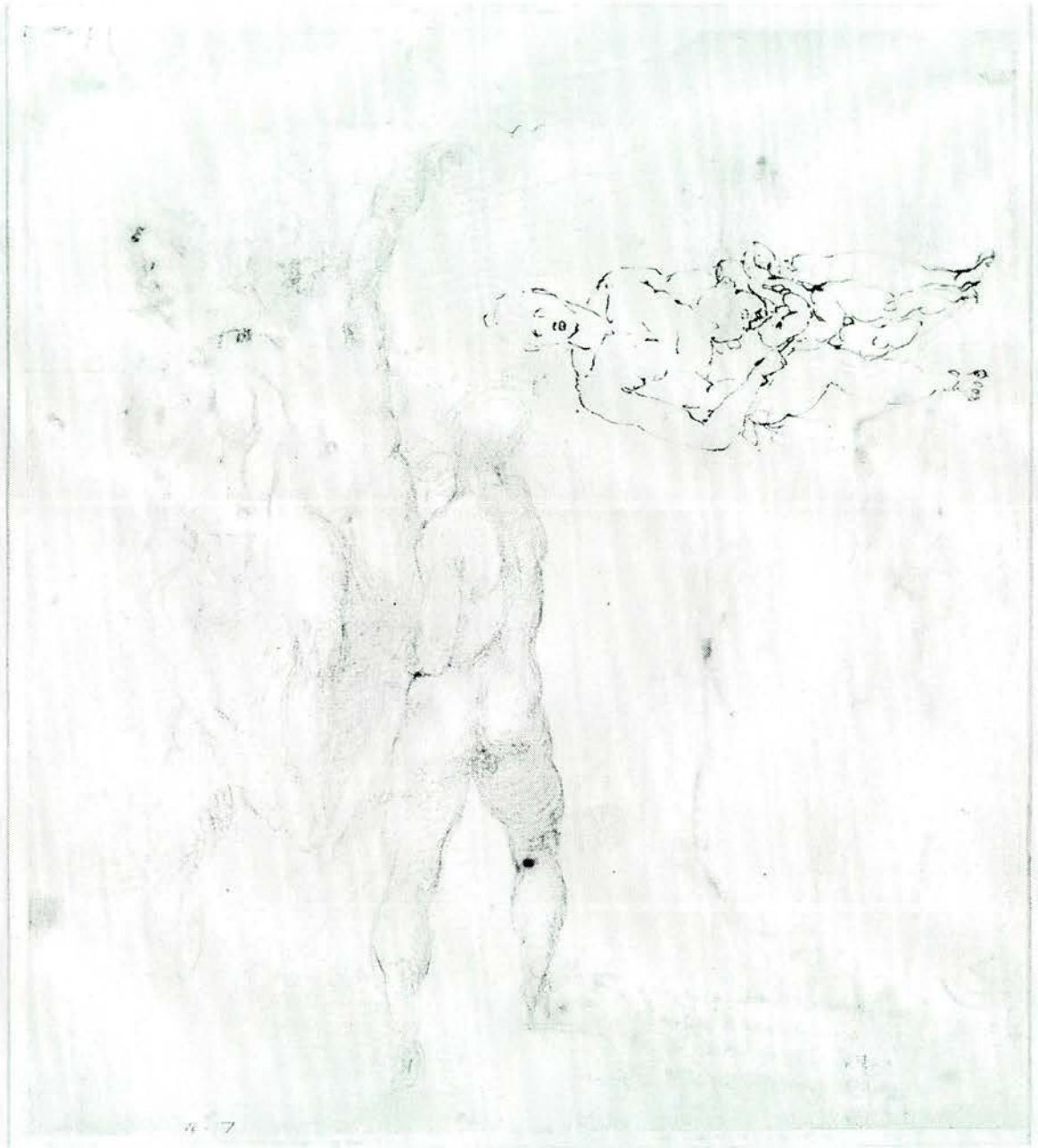
Black chalk, brown ink on pink prepared paper; 270 × 150 mm
Louvre Museum, Paris: 726r



Michelangelo (73)

Male Nude and Studies for an Apostle

Pen and brown ink; 272 × 262 mm
Uffizi Museum, Florence: 233F



Michelangelo (74)

Virgin with the Child (recto)

Black chalk (the nudes); pen and light brown ink;

315 × 278 mm

British Museum, London: 1859-6-25-56



Michelangelo (75)

Study of a Virgin and Child

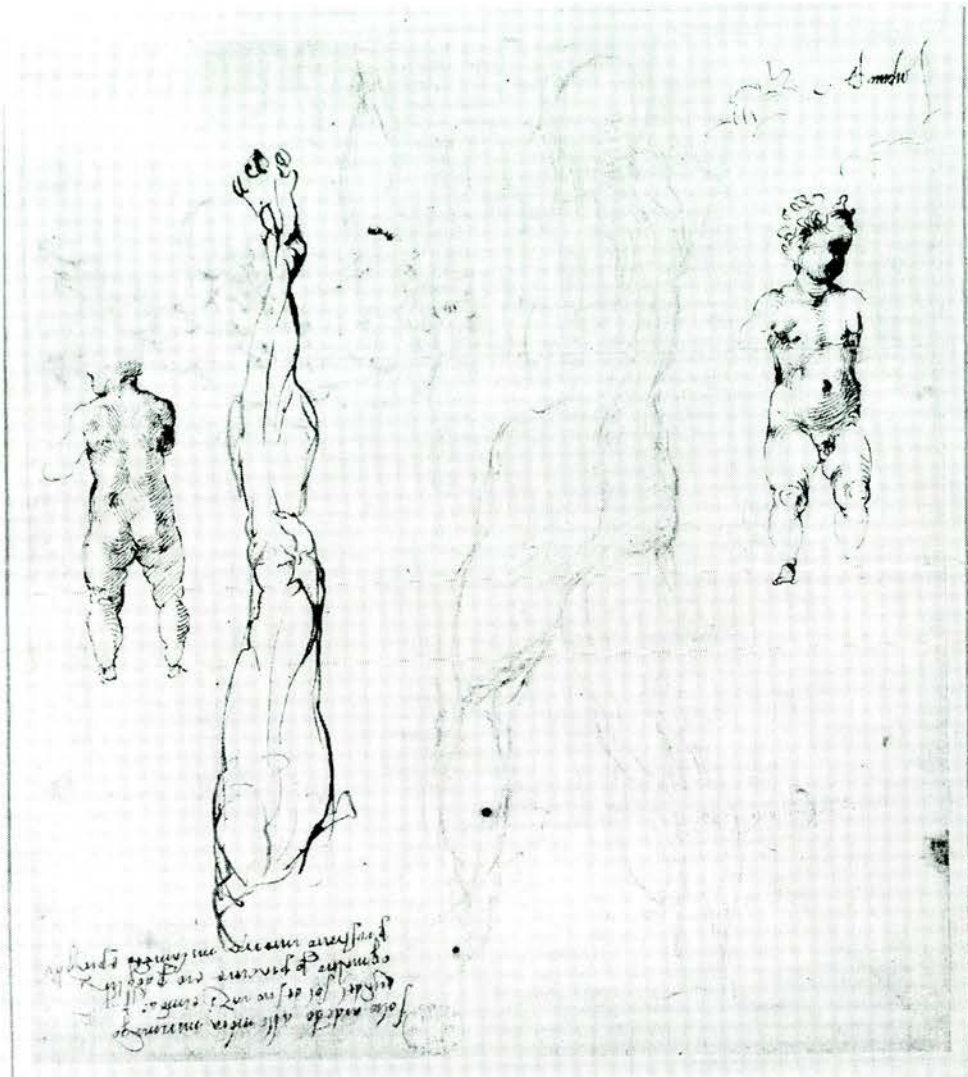
Pen and brown ink; 390 × 187 mm
Albertina Museum, Vienna: Inv. 118



Michelangelo (76)

Studies of a Virgin and Child

Pen and brown ink; 365 × 195 mm
Louvre Museum, Paris: 689v.



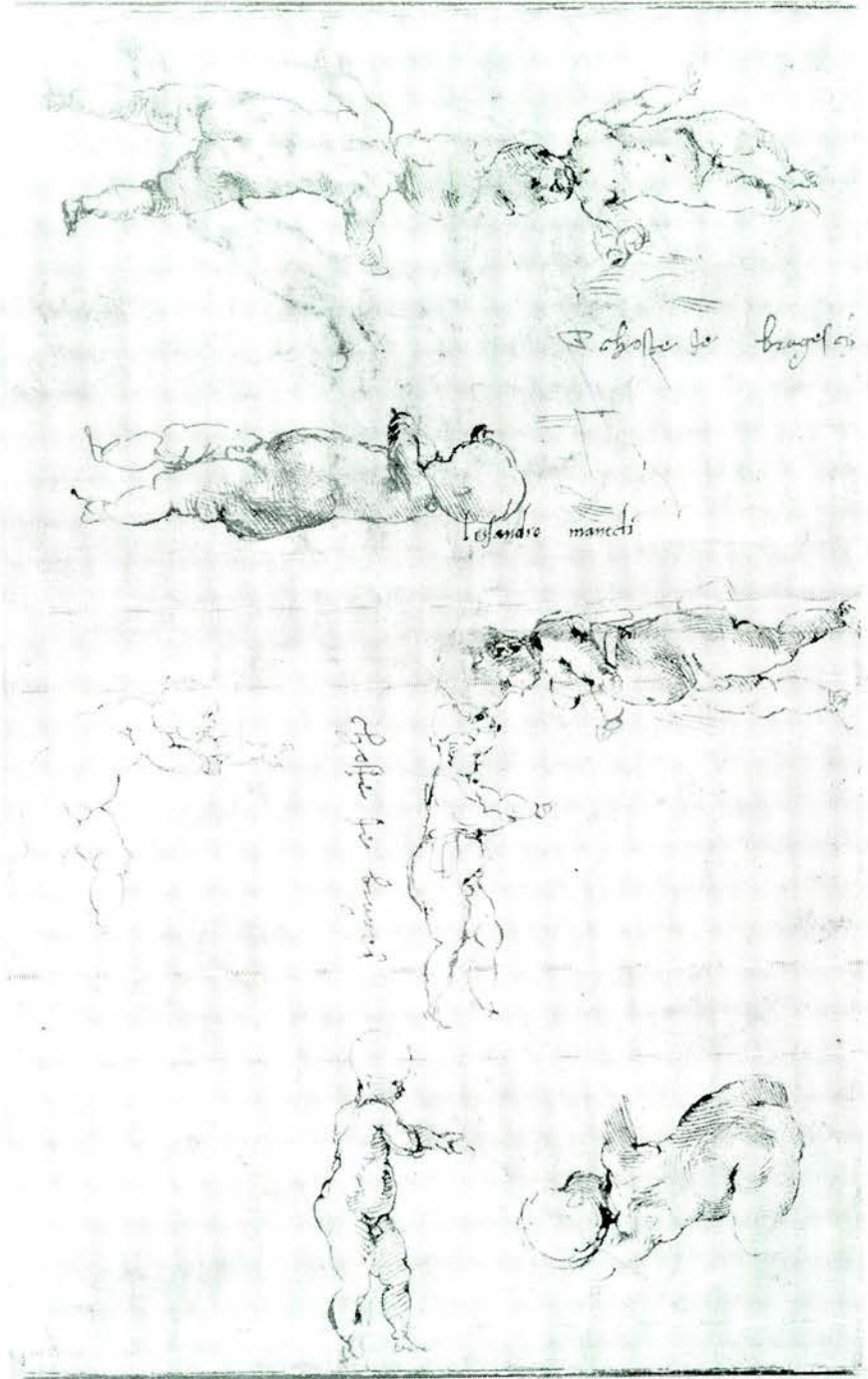
Michelangelo (77)

Two Putti (verso of 74)

Pen and dark brown ink over traces of leadpoint; the leg and the verses in the same ink;

315 × 278 mm

British Museum, London: 1859-6-25-56



Michelangelo (78)

Studies of Putti (verso)

Pen and brown ink over sketches in black chalk, four of them are not finished in ink;

375 × 230 mm

British Museum, London: 1887-5-2-117



Michelangelo (79)

Study for the Christ Child in the Tondo Doni

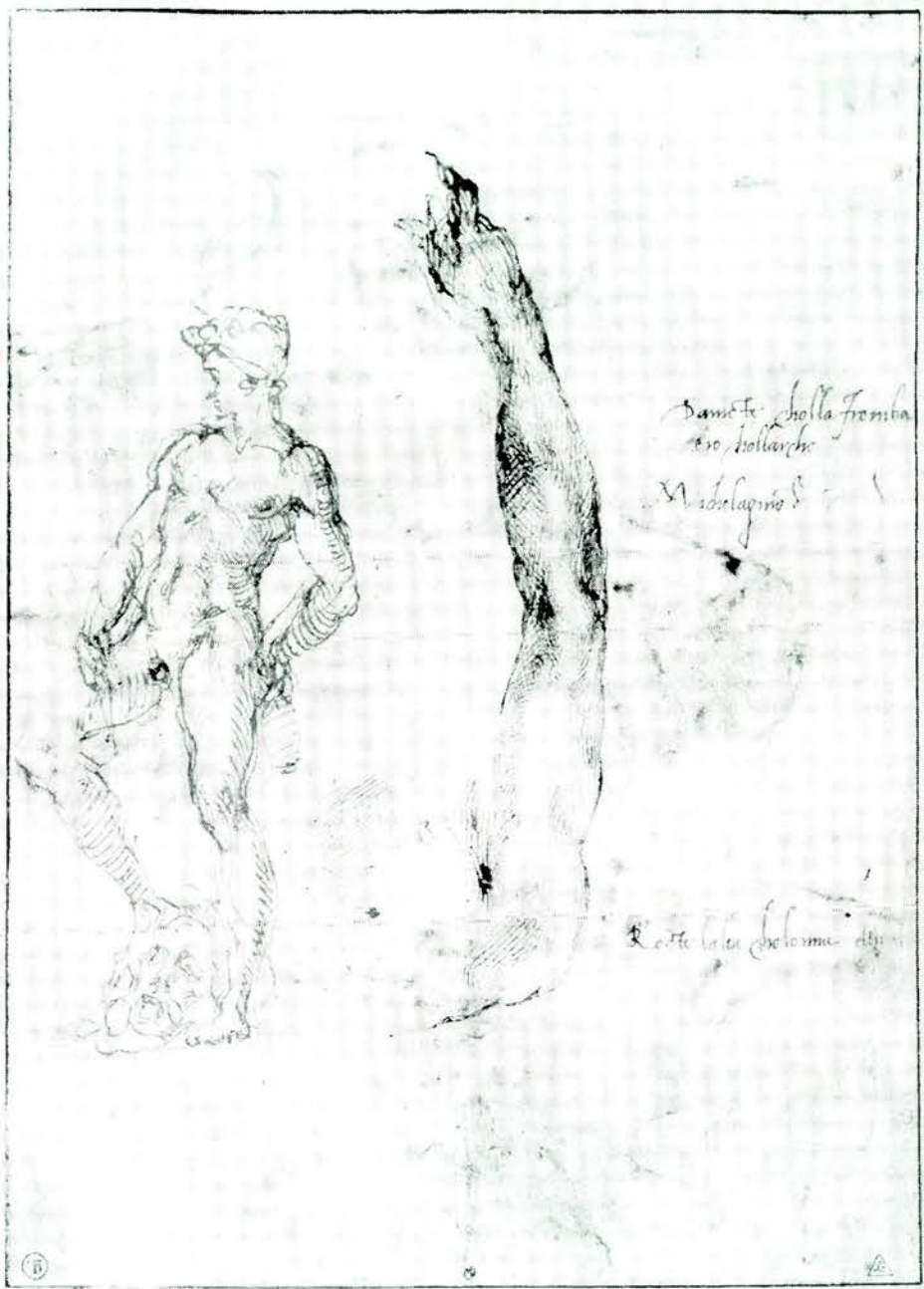
Pen and brown ink; 163 × 920 mm
Casa Buonarroti, Florence; 23Fr.



Michelangelo (80)

Study for the Head of the Virgin in the Tondo Doni

Red chalk; 199 × 172 mm
Casa Buonarroti, Florence; 1Fr.



Michelangelo Buonarroti (81)

Study for the Right Arm of the Marble David and for the lost bronze David

Pen and brown ink; 262 × 185 mm
Louvre Museum, Paris: Inv. 714

FIGURES

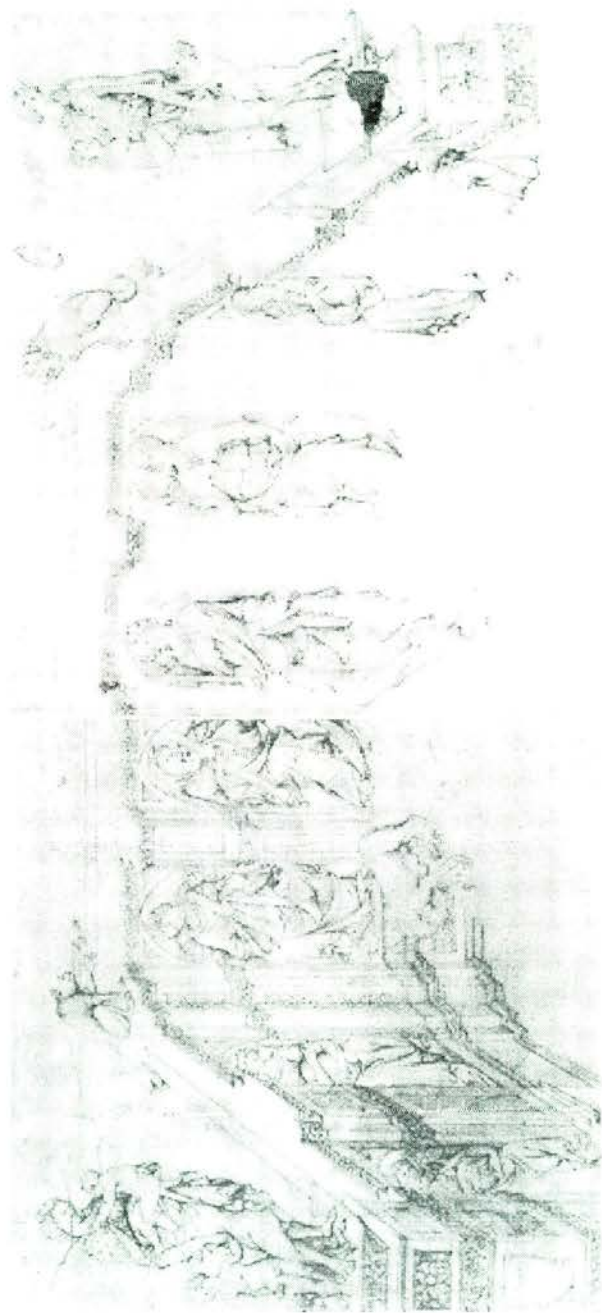


Figure One

Jacopo della Quercia

Study for the Fonte Gaia

Bot.1 fragments shown together
(Lining up both sides of the frieze to show lack of balance)



Figure Two

Jacopo della Quercia

Study for the Fonte Gaia

Both fragments adjusted to show true alignment
(This is a guideline only, careful manipulation of both pieces necessary
to give an accurate indication of loss)

Ape	Dog
Fortitude (column)	Humility (candle)
Temperance (pitcher)	Prudence (three eyes)
Angel Gabriel (lily)	Annunciate Virgin (without wings)
Acca Laurentia	Rea Silvia
Faith (cross)	Justice (sword)

Figure Four

Layout of Figures on Study for the Fonte Gaia

Fortitude (column)	Prudence (snake)	Angel	Virgin	Angel	Justice (sword)	Charity (?)
Hope (looks at Christ Child)						Temperance (measuring instrument)
Wisdom (book)						Faith (cross)
Birth of Adam						Expulsion
Acca Laurentia						Rea Silvia

Figure Five

Final Layout of figures on Fonte Gaia



Figure Six

Plaster Cast showing Faith from the Fonte Gaia

Museum Palazzo Pubblico, Siena



Figure Seven

Plaster Cast showing the Angel to the left of the Virgin from the Fonte Gaia

Museum Palazzo Pubblico, Siena



Figure Eight

Anonymous

Sceptre of Charles V

Louvre Museum, Paris: Gallerie d'Apollon



Figure Nine

Anonymous

Bust of Constantine

Bibliothèque Nationale, Paris: Cabinet des Antiques

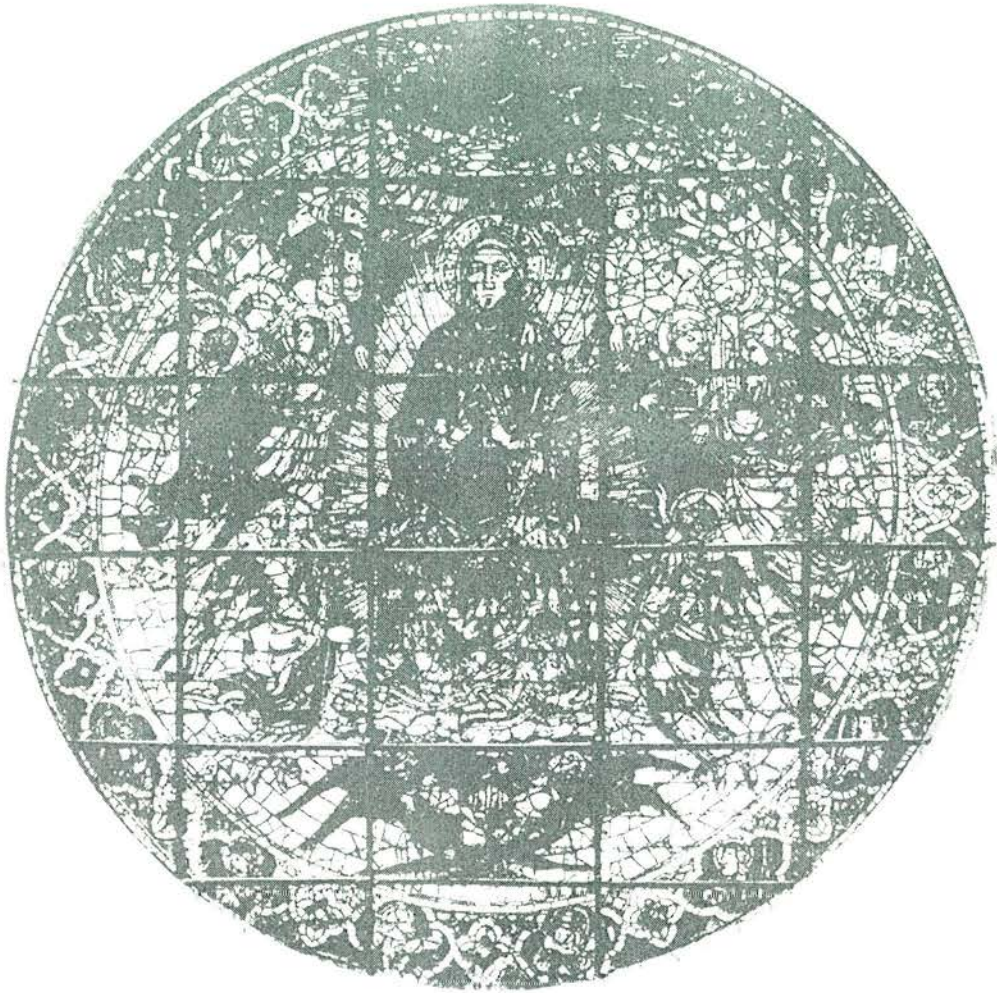


Figure Ten

Bernardo di Francesco

The Assumption: window for Florence Cathedral

Designed by Ghiberti

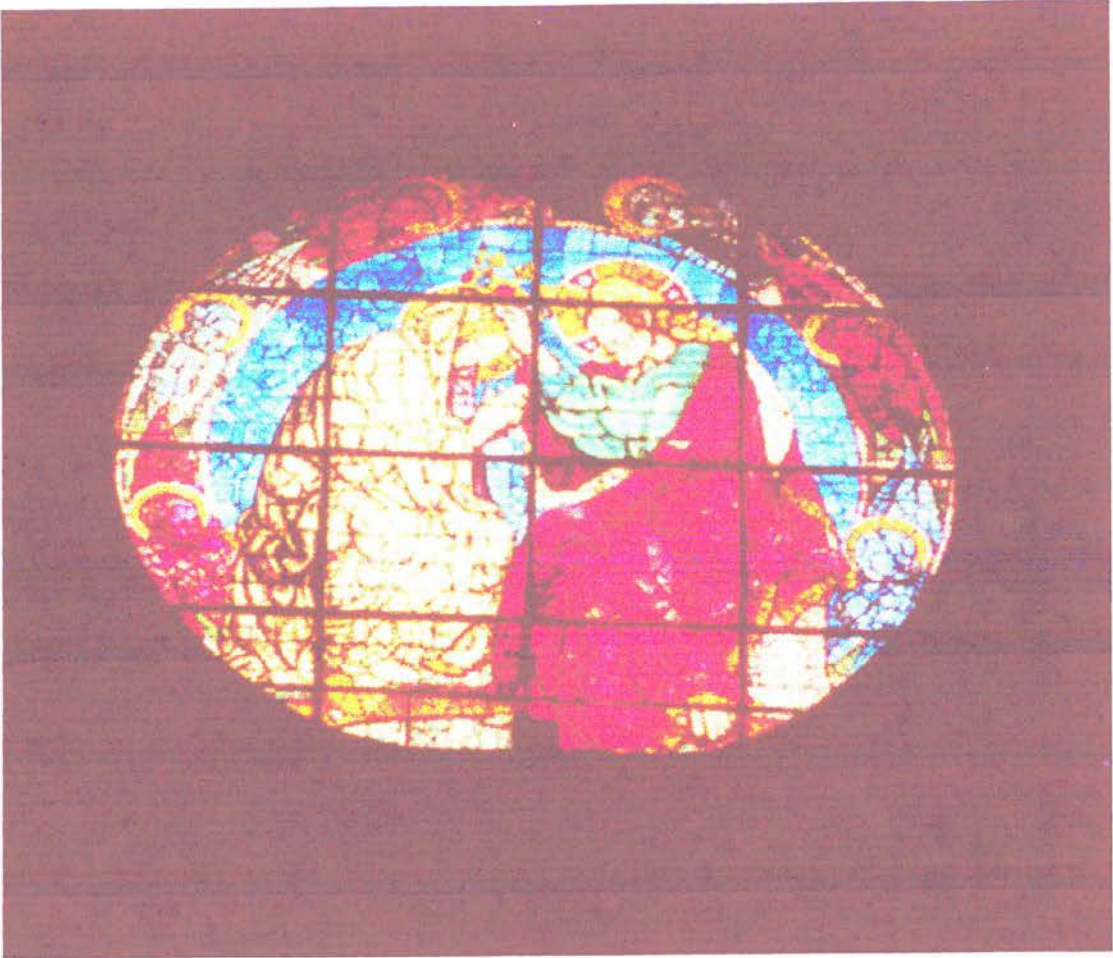


Figure Eleven

Bernardo di Francesco
(assisted by Paolo Uccello)

The Coronation of the Virgin: window for Florence Cathedral

Designed by Donatello



Figure Twelve

Ghiberti

Statue of Saint Stephen

Orsanmichele, Florence



Figure Thirteen

Nanni di Banco

Statue of Saint Philip

Orsanmichele, Florence



Figure Fourteen

Nanni di Banco

Detail of the upper niche of Saint Philip

Orsanmichele, Florence



Figure Fifteen

Piero di Giovanni Tedesco

Statue of Saint Stephen

Louvre Museum, Paris



Figure Sixteen

Ghiberti

Tomb of Leonardo Dati

Santa Maria Novella, Florence

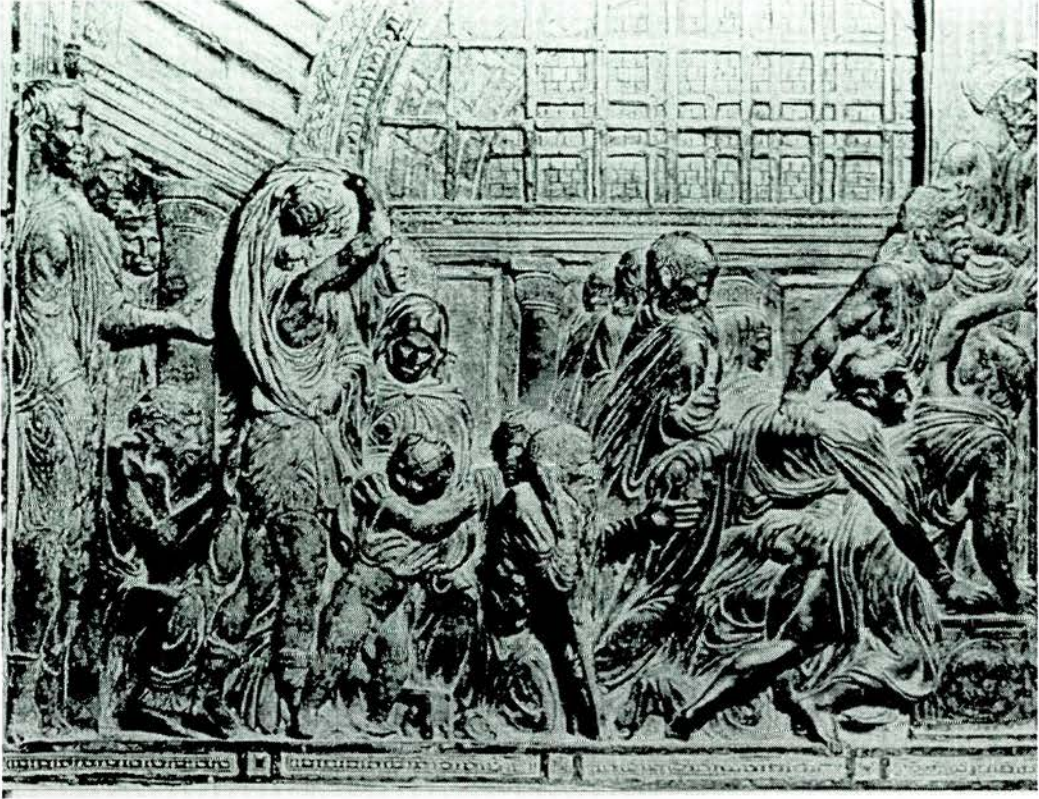


Figure Seventeen

Donatello

Miracle of the Ass

San Antonio, Padua



Figure Eighteen

Donatello

Christ Giving the Keys to Saint Peter

Victoria and Albert Museum, London



Figure Nineteen

Donatello

Predella from the Statue of Saint George

Orsanmichele, Florence