Technical Innovation and the Development of Raphael's Style in Rome
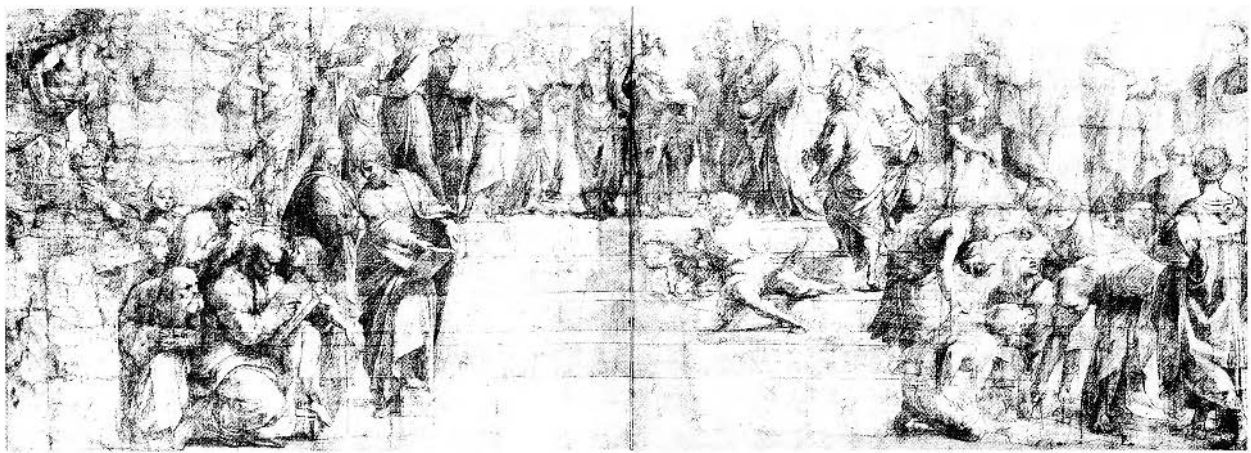
EVE BORSOOK

Florence

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FIGURE 1. Raphael, Cartoon for the *School of Athens*. Milan, Ambrosiana (Photo: Amilcare Pizzi).

The shared interest of the specialists gathered here from all over the world eloquently expresses the enduring strength of the Roman tradition in the field of mural painting. An aspect of the theme I would like to consider with you concerns two non-Romans who came to the city in the early sixteenth century and rapidly created a new style, which has been identified with Rome ever since. Raphael of Urbino and Michelangelo of Florence came to Rome at about the same time and the style they developed there, I suspect, owes something to two technical innovations: the use of cartoons for entire scenes and the preliminary lay-out of monumental compositions via large areas of ground colour.

What originally aroused my interest in this issue were problems connected with Raphael's Ambrosiana cartoon (FIG. 1): its relation to the fresco in the Vatican (FIG. 2) and the possible influence of the cartoon on the later Scalzo frescoes by Andrea del Sarto.[1] These questions and some hypothetical answers to them, however, came into sharper focus with the revelation of Michelangelo's technique in the lunettes of the Sistine ceiling – which many of the participants in this symposium have been able to

study at close range thanks to the recent cleaning carried out by Gianluigi Colalucci and Fabrizio Mancinelli – both of whom are contributors to this meeting.

From the surviving evidence, both the use of big cartoons and the laying out of compositions via large areas of flat, ungraded ground colour, coincided with just those years when the center of artistic gravity shifted from Florence to Rome between 1503 and 1511. First, let us consider the advent of the monumental cartoon for entire scenes destined for the wall. The first known examples, both of them

1 E. Borsook, *The Mural Painters of Tuscany*, 2nd ed. (Oxford, 1980), 129.

Florentine, are lost: Leonardo's *Battle of Anghiari* and Michelangelo's *Battle of Cascina* prepared between 1503 and 1504 for the great new council chamber in the town hall of Florence. Raphael's cartoon for the *School of Athens*, now in the Ambrosiana Library in Milan, is the earliest surviving example of the new type of cartoon and it dates about seven years later (FIG. 1). This cartoon is almost eight metres wide and corresponds with the lower half of the fresco painted in the Vatican palace.

In order to understand why the monumental cartoon made its appearance just then and to appreciate some of the practical problems involved in its use, we need to re-examine, very briefly, the history of cartoons generally in Italy. I will omit the evidence offered by incised drawings on murals going back as far as the Etruscans[2] because it is difficult to be sure what was traced from a cartoon and what was drawn 'free hand.' The earliest reliable examples of the use of cartoons (and by cartoon I mean a full-scale drawing carried out either on paper or parchment and prepared for the express purpose of transferring the design to another surface) date from the thirteenth and fourteenth centuries.[3] The evidence for the existence of cartoons for entire compositions comes not from painted plaster, but rather from walls of glass, i.e. from stained-glass windows. In the nave of the Upper Church of San Francesco at Assisi are windows dating from about 1280 where small Roman numerals are hidden among the ornament. These were probably based upon a cartoon used for the

assembly of the many pieces of glass into the final composition.[4] Then, from the early fourteenth century, in the Museum of Santa Croce in Florence, there are two saints from different windows which nevertheless were clearly based on the same cartoon.[5] Inside the church itself, in the Baroncelli Chapel, almost every segment of Taddeo Gaddi's window there is numbered and it is a pity that, as far as I know, this striking example of an entire window based on a monumental cartoon has never been recorded photographically. Besides these and other visual testimonials, Cennino Cennini's handbook describes the use of such drawings for both windows and embroidery.[6] Probably, this is why Oberhuber, among others, sees the origin of the Renaissance cartoon in the design of stained-glass windows.[7]

Another possible source, however, may be the tapestry cartoon. Northern hangings were imported into Italy throughout the fifteenth century; between 1450 and 1470 we know that Italian painters furnished cartoons for Flemish weavers then working in Ferrara.[8] Of course, a few decades later, Italian cartoons, such as Raphael's for the tapestries destined for the Sistine Chapel, were shipped to Flanders where the finished hangings were eventually sent back to Rome.[9] These cartoons, now in the Victoria and Albert Museum in London, are particularly interesting for our theme because they are really paintings – albeit on paper – so as better to guide the weavers. This kind of exchange of technical expertise may have facilitated the introduction of cartoons for entire frescoed scenes.

In the medium of fresco, cartoons and stencils were by the fourteenth century often used for repeated patterns which are visible in the ornamental borders of murals at Assisi, Florence and Pistoia.[10] There is already, too, a case to be made for the existence of cartoons for large sections of scenes: witness the duplication of part of the *Last Judgment* in the Camposanto of Pisa by Buffalmacco in a now ruined fresco attributed to Alessio d'Andrea from the former hospital of the Misericordia e Dolce at Prato.[11] During the Quattrocento, evidence for the use of cartoons for the internal details of compositions rapidly increases – but always for a single figure or a detail. There is Benozzo Gozzoli's radically foreshortened ox, of which he seems to have been very proud – because he used him on several occasions over a period of many years: first in the Medici Chapel in Florence and then again at the Camposanto in Pisa.[12] Clearly, the cartoon was already a part of the painter's professional equipment.

Then there is the example of Piero della Francesca who liked to use the same cartoon several times within a single composition. In the fresco at Monterchi, the angels on either side of the *Madonna* were based on the same cartoon, which was simply reversed. Piero resorted to the same procedure in Arezzo for several of the ladies in the scenes of the Queen of Sheba and King Solomon.[13] This repetition of single

2   P. and L. Mora with P. Philippot, *La Conservation des peintures murales* (Bologna, 1977), plates 1, 75, 84; Borsook, 1980, XXXVI.

3   Borsook, 1980, XLIV ff.; idem, 'Effects of Technical Developments on the History of Italian Mural Painting of the Fourteenth and Fifteenth Centuries,' in *Atti del XXIV Congresso Internazionale di Storia dell' Arte*, vol. III: *La Pittura nel XIV e XV secolo: il contributo dell' analisi technica alla storia dell'arte, Settembre 1979*, eds. H.W. van Os and J.R.J. van Asperen de Boer (Bologna, 1983), 163 f., 168, n. 13.

4   Giuseppe Marchini, *Corpus vitrearum medii aevi: Italia*, vol. 1: *l'Umbria* (Rome, 1973), 48 f., 203 f., 206.

5   Idem, *I materiali dell' arte* (Florence, 1977), colour plate VII.

6   Cennino Cennini, *Il Libro dell' Arte: The Craftsman's Handbook*, ed. D.V. Thompson Jr. (New Haven, 1933), 87, 111; Borsook, 1980, XXXV, n. 2.

7   Joseph Meder, *Die Handzeichnung* (Vienna, 1919), 522; Konrad Oberhuber and Lamberto Vitali, *Raffaello: il cartone per la Scuola d'Atene* (Milan, 1972), 9; Francis Ames-Lewis, *Drawing in Early Renaissance Italy* (New Haven/London, 1981), 29.

8   M. Viale Ferrero, *Arazzi italiani* (Milan, 1961), 13-14.

9   Meder, 528; John Shearman, *Raphael's Cartoons in the Collection of Her Majesty the Queen and the Tapestries for the Sistine Chapel* (London, 1972), 139, 209.

10 See note 3.

11 This is now on view in the collection of detached murals at S. Domenico, Prato. Giuseppe Marchini, *Due secoli di pittura murale a Prato: Mostra di affreschi, sinopie e graffiti dei secoli XIV e XV* (Prato, 1969), 21-25.

12 B. Degenhart and A. Schmitt, *Corpus der italienischen Zeichnungen 1300-1450* (Berlin, 1968), Sec. I, vol. II, 490, figs. 662-3; Borsook, 1980, XLVI.

13 Kenneth Clark, *Piero della Francesca* (London, 1951), 31, 37.

cartoons contributes to that sense of regularity and balance which we associate with Piero's serene intarsia-like style.

Single cartoons for individual figures must have been handled rather like paper dolls: cut-out figures which could easily be shifted about on the wall and tried out in various positions and at different angles. This is what Castagno did in the sinopia preliminaries for the angels in the refectory mural of Sant' Apollonia.[14] But it is only towards the very end of the century that cartoons for entire compositions begin to turn up. All the surviving examples are, however, works of relatively small size: panel paintings and predella scenes such as Raphael's for a *Dreaming Soldier*, of which both cartoon and painting are now in the London National Gallery.

The earliest known examples of monumental cartoons for entire frescoes are the two mentioned at the beginning of this paper: the battle scenes prepared by Leonardo and Michelangelo for the great *salone* of the town hall of Florence.[15] Leonardo's cartoon was so big that a room in the papal apartment at Santa Maria Novella was put at his disposal. To suit his requirements, changes to the room were even made: a special passageway for the artist was prepared as well as special window coverings to create the soft diffused light of which he was so fond.[16] If I interpret Gaye's transcriptions correctly, similar temporary adjustments to the windows were made to accommodate Leonardo's requirements in the town hall.[17]
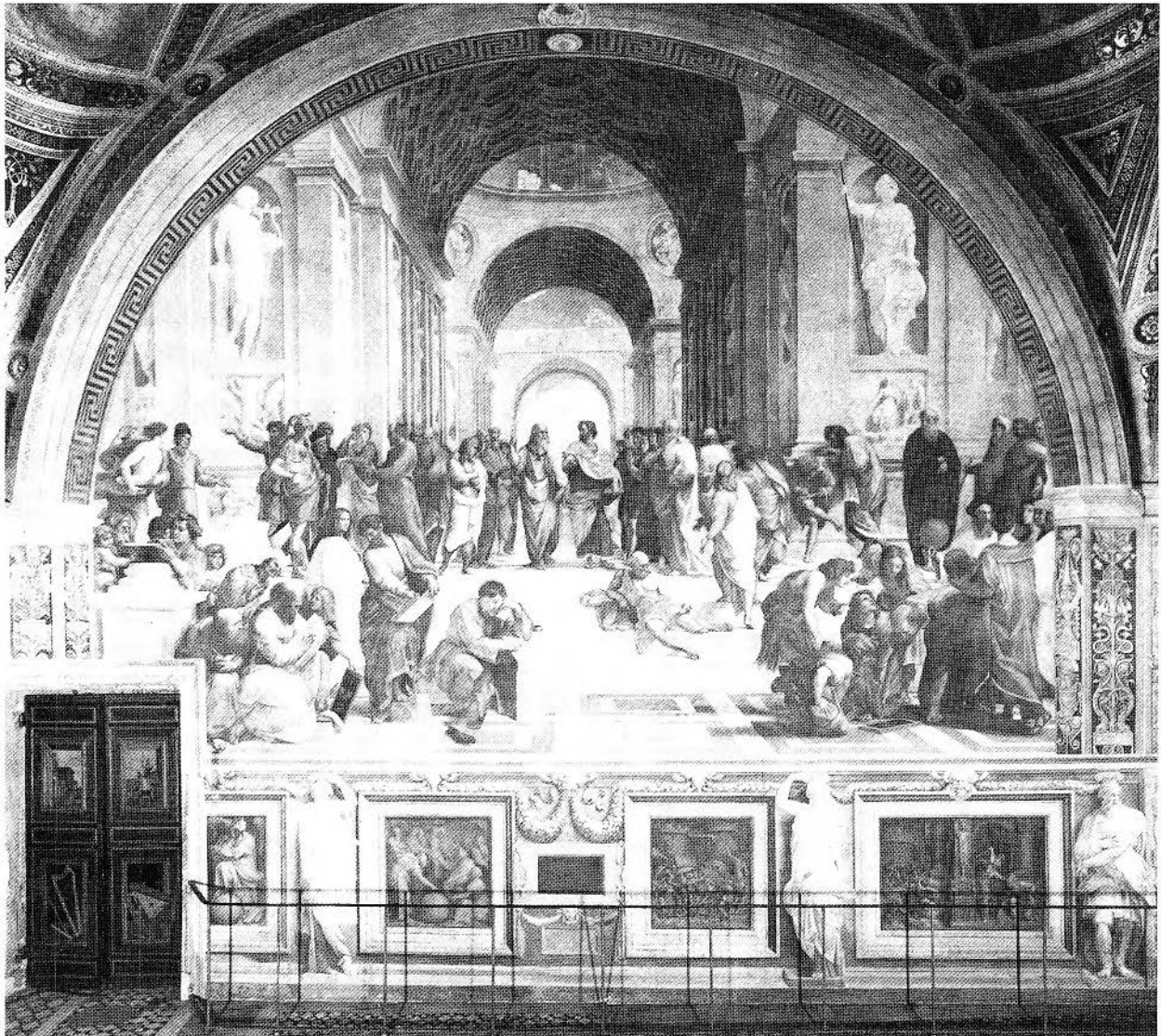
14 Robert Oertel, 'Perspective and Imagination.' *The Renaissance and Mannerism: Studies in Western Art: Acts of the 20th International Congress of the History of Art*, vol. II (Princeton, 1963), 148-9.
15 Charles de Tolnay, *The Youth of Michelangelo* (Princeton, 1943), 209 ff.
16 G. Gaye, *Carteggio inedito d'artisti dei secoli XIV, XV, XVI*, vol. II (Florence, 1846), 88-90.
17 Loc. cit.

FIGURE 2. Raphael, *School of Athens*. Vatican, Stanza della Segnatura (Photo: Musei Vaticani).

Mention is also made of the ingenious scaffolding devised for him; it was mobile and, according to Vasari, it could be raised and lowered via a scissors-like mechanism enabling Leonardo to work on the composition at every level.[18] Most scaffoldings we are familiar with are built in tiers, and it is not so easy to take them apart and put them back together again just for the sake of standing back to take a look at the work in progress. Hence the importance of the sinopia for earlier mural painters.

Michelangelo's cartoon for the *Battle of Cascina* was prepared in a room of the former convent of Sant' Onofrio. I know less about the details concerning its preparation – a task now being undertaken by Michael Hirst.[19] But it is well known that Michelangelo's cartoon, like Leonardo's, was a *grisaille* and the public display of both of these monumental drawings was an artistic sensation.[20] Into the midst of the furor, young Raphael came to Florence in 1504, either via Siena or directly from Urbino.[21] He was 21 years old and he came with an enthusiastic letter of introduction from the Duchess of Urbino to Piero Soderini, the chief magistrate of Florence, who had initiated and supervised the great civic commissions to Leonardo and Michelangelo.[22]

Six or seven years later, Raphael prepared his own monumental cartoon for the *School of Athens* (FIG. 1) destined for the Stanza della Segnatura in the Vatican. Since January 1509 he had been engaged by Julius II to paint the papal apartment.[23] The Ambrosiana cartoon is just 15 centimetres short of the 8 metres wide fresco. Like its Florentine predecessors, Raphael's cartoon is again a *grisaille* drawn in black chalk heightened in white.[24]

Traces of squaring indicate that the composition was enlarged from a smaller scale drawing (or *modello*); the cartoon not only plots the contours and situations of the figures, it also functions as a diagram for the distribution of light and shade.[25] All of the outlines and contours are perforated with tiny holes for the dark powder which was dusted through them so that the composition could be transferred to another surface (FIG. 3). The question is: onto what specific surface was the design transferred? Certainly not directly to the final plaster surface on the wall. Not only are there no *spolveri* visible in the fresco, but for the purpose of fresco painting the enormous cartoon could never have been transferred to the surface plaster (*intonaco*) in one piece, although conceivably it could have been transferred to the dry base plaster (*arriccio*) beneath. The actual surface of the fresco consists of dozens of successive patches of plaster (*giornate*), which instead of *spolveri* display lines incised into the plaster while it was still soft (FIG. 4). It remains to be established, however, if these incisions were traced through the lines of a cartoon or if the pointed tool simply went over the trails of *spolveri*, which then sank from view.[26]

Although Vasari's excursus on mural technique describes how cartoons were cut up into manageable pieces for transfer to correspondingly small patches of wet plaster,[27] this was *not* what happened to the Ambrosiana cartoon notwithstanding a recent claim to the contrary.[28] Raphael's great cartoon was never cut up into small pieces and then reassembled. Instead, as has been noticed by Oberhuber,[29] sections of the cartoon were duplicated upon other sheets of paper, and it was these duplicate drawings which were used for transferring the composition bit by bit to the wall. The whole operation is described by Armenino, whose text was written later in the sixteenth century:

Mà a salvarli [that is, the cartoons] poi illesi, dovendosi dopo calcar i contorni di quello sù l'opera che si lavorono, il miglior modo si è à forarli con un ago, mettendoci un' altro cartone sotto, il quale rimanendo come quello di sopra bucato serve poi per spolverare di volta in volta per dove si vuol dipingere, a massime sù la calce...[30]

Joseph Meder called such duplicates *Ersatz* cartoons; these were usually ruined during the process of transfer to the moist wall.[31] Raphael was not the first to resort to this procedure; Ghirlandaio already used it twenty-five years earlier in the Tornabuoni Chapel of Santa Maria Novella in Florence.[32] An original, or master, cartoon for one of the portrait heads is at

18 Gaye. 89; G. Vasari, *Le vite de' più eccellenti pittori scultori ed architettori*, ed. G. Milanesi, vol. IV (Florence, 1879), 42-3.
19 See Professor Hirst's study in the forthcoming volume on *Tecnica e stile: Esempi di pittura murale del Rinascimento italiano* based on a symposium at the Harvard University Center for Italian Renaissance Studies held at the Villa I Tatti in May 1983. See also de Tolnay, 210. By 1515, Michelangelo's cartoon was cut up and dispersed. Nothing of the original remains. It is generally thought that the most faithful copy is the *grisaille* at Holkham Hall (Norfolk) and attributed to Aristotile (also known as Bastiano) da San Gallo; E. Mitsch, 'Florentinische und frühe römische Jahre,' in *Raphael: die Zeichnungen*, eds. E. Knab et al. (Stuttgart, 1983), 111, n. 11.
20 Vasari-Milanesi, vol. VII (1881), 161.
21 V. Golzio, *Raffaello nei documenti* (Vatican City, 1936), 9; Mitsch, 83-4.
22 Vasari-Milanesi, vol. IV, 43-5. note, and vol. VII, 159 ff.; de Tolnay, 210.
23 R. Jones and N. Penny, *Raphael* (New Haven/London, 1983), 49.
24 For the influence of Leonardo's cartoon on Raphael, see O. Fischel, *Raphael* (London, 1948), 87; Anna Forlani Tempesti, *Raffaello; l'opera, le fonti, la fortuna*, vol. II (Novara, 1968), 381. For a discussion of Raphael's cartoon based on beautiful full-scale illustrations, see Oberhuber-Vitali, passim.
25 Oberhuber-Vitali, 9, 10.
26 For an example of free-hand tracing over the *spolveri* with a stylus, see F. Mancinelli, 'Raphael's Coronation of Charlemagne and its Cleaning,' *Burlington Magazine*, CXXVI (1984), 407.
27 Vasari-Milanesi, vol. I (1878), 176 f.
28 Ames-Lewis. 1981, 29.
29 Oberhuber-Vitali, 9.
30 G.B. Armenini, *De' veri precetti della pittura* (Venice, 1678), 62-3. The first edition of Armenini's treatise is Ravenna, 1587.
31 Meder, 528, 530.
32 Borsook, 1980, L-LI.

FIGURE 3. Raphael, detail of Fig. 1, showing perforations (Photo: Amilcare Pizzi).

FIGURE 4. Raphael, detail of Fig. 2, showing incised lines (Photo: Musei Vaticani).

Chatsworth. Thanks to Artur Rosenauer's observations from the restorer's scaffolding, we know that the drawing and its lost *Ersatz Karton* corresponded exactly.[43]

Although not a single segment of a duplicate cartoon survives for the *School of Athens*, it is possible to reconstruct Raphael's working sequence from another work: the large panel painting of the *Transfiguration*, the size of which is comparable to that of a fresco.[34] There may never have been a complete cartoon for the entire painting,[35] but six full-scale drawings exist for heads and a few hands in the painting (FIGS. 5 and 6). All these drawings show *spolveri*, the tell-tale dots which indicate that they were based upon perforated cartoons since lost. This type of drawing goes by the misnomer of 'auxiliary cartoon,' or *Hilfskarton*,[36] but since they are neither perforated or marked by tracing, they were clearly not intended for transfer and are, therefore, *not* cartoons at all. The duplication of the six heads must have had another function. The *Transfiguration*, like the *School of Athens*, was a composition the richness and variety of which were compounded by a complex distribution of light and shade that were difficult, if not impossible, to transfer mechanically. Therefore, the individual sheets, which plot the masses of shade drawn over the *spolveri*, were intended to guide the painter while he concentrated on the painting of limited areas on the wall or on a panel. The only other explanation for the six drawings is that they were intended as souvenirs of the cartoons ruined in the process of transfer.[37]

What, then, was the function of the large Ambrosiana cartoon (FIG. 1)? Was it merely for the convenience of having a substitute for the wall upon which to lay out the final composition either on the site or in the studio? Certainly, the more finalized the composition was in the cartoon stage, the less time was

33 Arthur Rosenauer, *Zum Stil der frühen Werke Domenico Ghirlandajos*, doctoral dissertation (Vienna, 1965), 59; and the confirmed measurements made in 1985 on the site of the mural by the restorer, Guido Botticelli.

34 For the 'genesis' of the *Transfiguration* see the fine article by Konrad Oberhuber, 'Vorzeichnungen zu Raffaels "Transfiguration" ', *Jahrbuch der Berliner Museen*, N.S., IV (1962), 142.

35 See F. Mancinelli on the *Transfiguration* in the catalogue: *Raffaello nel Vaticano* (Vatican City, 1984), 309, which reveals that X-ray examination shows many *pentimenti* indicating that the composition continued being revised during the painting process. Recent examination of the Sistine *Madonna* in Dresden shows a similar development; Karl Heinz Weber, 'Die Sixtinische Madonna,' *Maltechnik/Restauro* (October 1984), 9-28. However, a cartoon did exist for a large section of another altarpiece from Raphael's shop: Giulio Romano's *Lapidation of St. Stephen*; see P.L. De Vecchi, in *Raffaello nel Vaticano*, 311-314.

36 J.A. Gere and N. Turner, catalogue: *Drawings by Raphael from the Royal Library, the Ashmolean, the British Museum, Chatsworth and other English Collections* (London, 1983), 218-233, where all of these drawings are described as 'auxiliary cartoons' and as 'black chalk over pounced through underdrawing' (n°° 176-178, 180) but none of these drawings are perforated for transfer. Cf. A. Knab et al., 618-19, where the same drawings are described as 'Hilfskarton.' The terms were invented by O. Fischel, 'Raphael's Auxiliary Cartoons,' *Burlington Magazine*, LXXXI (1937), 167.

37 This idea was mentioned to me during a recent conversation with Fabrizio Mancinelli. Infra-red reflectographs still need to be made of the *Transfiguration* to see what the nature of the preliminary underdrawing is.

FIGURE 5. Raphael, Full-scale study for head in the *Transfiguration*. Formerly at Chatsworth, n° 66 (Photo: Courtauld Institute, London).

FIGURE 6. Raphael, detail of the *Transfiguration*. Pinacoteca Vaticana (Photo: Musei Vaticani).

needed on the wall for working things out: a factor favouring *buon fresco* technique. Therefore, the master cartoon, such as the Ambrosiana drawing, would have been brought to the site (FIG. 2) where it was either hung up on an adjacent wall or simply rolled out on the floor of the Stanza della Segnatura where it would have been in full view of Raphael while he painted on the scaffolding. Such an arrangement would have allowed the painter to keep the entire composition always before him while concentrating on successive small areas aided, perhaps, by duplicated details kept close at hand. Those duplicates could have been duplicated sections of the master cartoon similar to those for the heads in the *Transfiguration*.

The great master cartoon served then as a kind of portable sinopia which had the advantage of never disappearing beneath the plaster. Not everyone worked this way, and Raphael himself probably did not consistently follow this procedure.[38] Armenino noted that most painters traced through the master cartoon, which, of course, often ruined it. But some left it intact, as Raphael did with the Ambrosiana drawing. In fact, Armenino recommended that: 'il primo cartone... si tiene tuttavia per esempio mentre si fa l'opera con i colori.'[39]

Certainly, with the advent of Leonardo and Michelangelo (and Smyth reminds us that one must not overlook the possible influence of the Venetians upon them[40]), pictorial composition became so complex that it would have been difficult for a fresco painter to maintain control of the overall chiaroscuro effect unless a cartoon for the entire composition existed, which included indications of where the lights and shadows were to go.[41] Before Leonardo, Michelangelo and Raphael, both lighting and settings were relatively simple because light and shade had not yet become protagonists in their own right.

Raphael's growing concern for these elements and his exploitation of them for dramatic effect developed rapidly in his post-Florentine works. This is the most striking feature in several studies for the

38 See note 35. Little is known of other monumental cartoons by Raphael for the Stanze. Vasari mentions some (Vasari-Milanesi, vol. IV, 346) and there are a few surviving fragments, but whether these are from a master cartoon for an entire scene or duplicates of sections thereof, is not clear. Two fragmentary cartoons for the *Disputa* exist and there are three more for the *Expulsion of Heliodorus*; see the catalogue: *Hommage à Raphaël: Raphaël dans les Collections françaises* (Paris, 1983), 246 f., 258 ff. As far as I know, there are no detailed studies of the surfaces of these frescoes which tell us how much was prepared via cartoons and how much was improvised.

39 Armenini, 63.

40 For the possible Venetian influence on the rendering of chiaroscuro by Leonardo and Raphael, see C.H. Smyth, 'Venice and the Emergence of the High Renaissance in Florence: Observations and Questions,' *Florence and Venice: Comparisons and Relations*, vol. 1 (the Quattrocento), Florence, 1979, 227, 233 f.

41 Oberhuber-Vitali, 9.

FIGURE 7. Raphael, Study for the *Disputa.* London, British Museum (Photo: Museum, Inv. 1900-8-24-108).

FIGURE 8. Raphael, Study for the *Disputa.* London, Royal Library, Windsor Castle (Photo: Library).

FIGURE 9. Raphael, *Disputa.* Vatican, Stanza della Segnatura (Photo: Musei Vaticani).
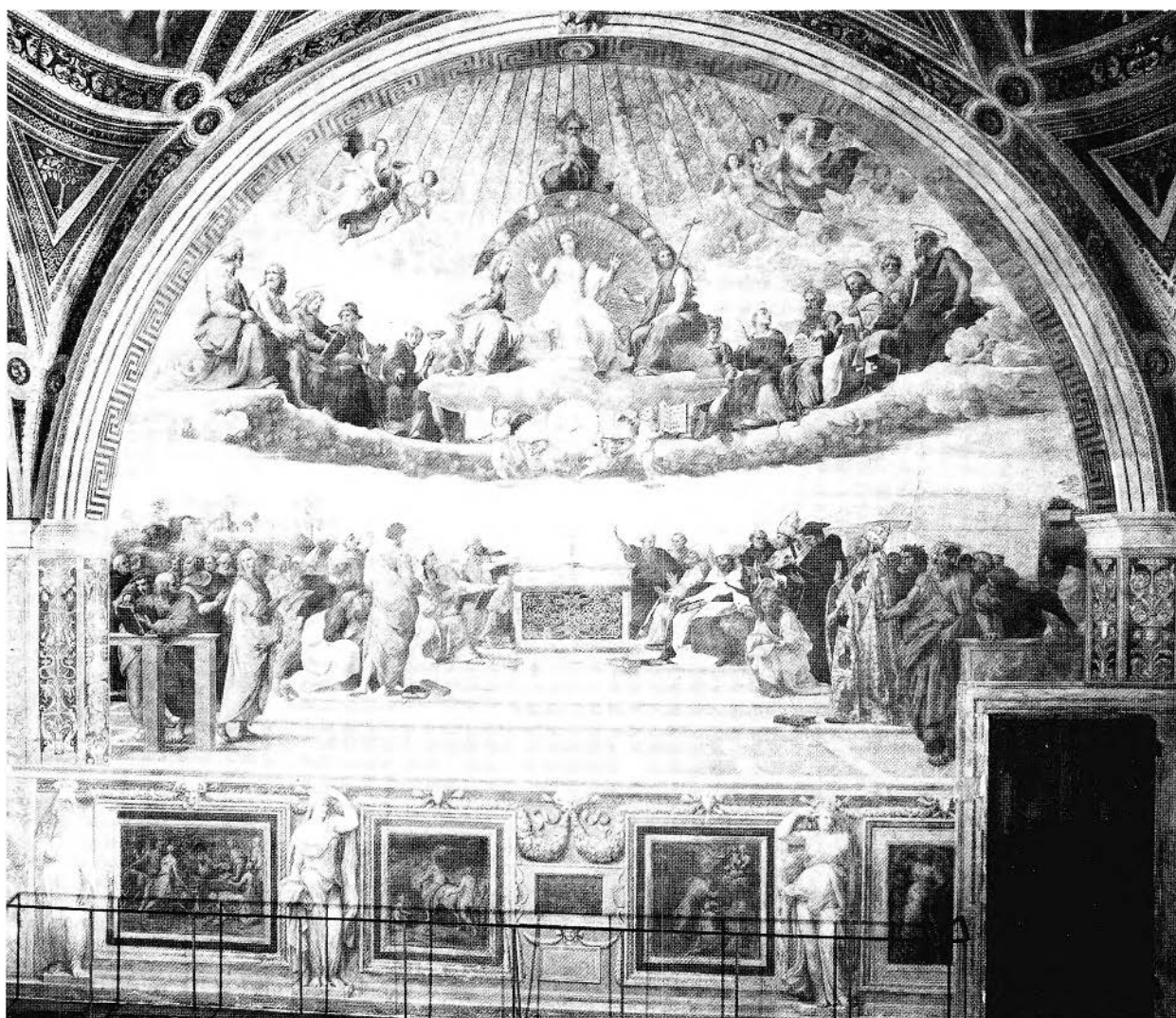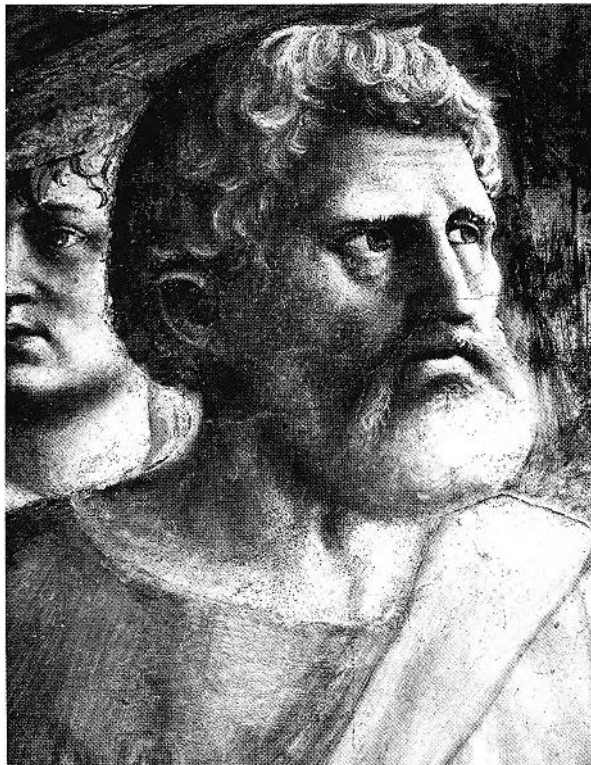
FIGURE 10. Raphael, detail from the *Liberation of Peter*. Vatican, Stanze (Photo: Kunsthistorisches, Florence).

FIGURE 11. Masaccio, detail from the *Tribute Money*. Florence, Chiesa del Carmine, Brancacci Chapel (Photo: Alinari, Florence).

Disputa (FIGS. 7-8).[42] Curiously, in the final painting the expressive power of the *chiaroscuro* in the drawings is watered down (FIG. 9). In the Ambrosiana cartoon, however, much of the strong pattern of light and shade was carried out in the fresco (FIGS. 1-2) where they are rendered as islands of different colours. In the *Disputa* on the opposite wall, light and shade tend to be carried out instead via networks of hatched strokes or delicately gradated tones of the same colour.

Among Raphael's murals, the preoccupation with the expressive possibilities of light and shade culminates in the *Liberation of Peter*, which was completed two or three years after the *School of Athens* (i.e. in 1514). Of course, the nature of the subject lent itself to such pictorial treatment. The entire composition is based on masses of light and shade set in sharp contrast. The head of *St. Peter* (FIG. 10) is reminiscent of others by Masaccio in the Brancacci Chapel (FIG. 11), which is the only precedent comparable to Raphael's glyptic handling of light and shade. But aside from this possible Florentine recollection, something happened in Rome to accelerate Raphael's stylistic development in the brief time between the Stanza della Segnatura and the Stanza d'Eliodoro: namely Michelangelo's frescoes in the nearby Sistine Chapel.

Both painters were working for Julius II at the same time. By early August 1511, the first half of the Sistine ceiling was unveiled.[43] Technically, the great novelty was not in the biblical histories in the vault, but rather, in the lowest zone: in the lunettes with the ancestors of Christ, the area that was recently cleaned with the spectacular effects which are now astonishing us just as they must have astonished Raphael and his contemporaries. There is a radical difference both in style and technique between the lunettes and the vaults. The biblical histories (in their present, still uncleaned, state) have a general diffused light and as far as photographs reveal, it appears that almost every figure was based on cartoons carefully prepared for transfer either via perforation or incision. Thanks to the meticulous daily observations recorded by Colalucci and Mancinelli, we know that the lunettes were painted *without cartoons* on very few *giornate* (never more than three for each lunette which have an average measurement of 3,40 × 6,50 metres[44]). Since Michelangelo evidently wanted to carry out the work in true fresco, he had to paint with great speed and absolute sureness. Or, conversely, it could be argued, because he was forced to paint in

42 Knab et al., figs. 278, 281-2, 287, 289, 295.
43 For the most concise summary of the documents and discussion concerning the dating of these frescoes, see C.H. Smyth, 'Michelangelo and Giorgione,' in *Giorgione: Atti del convegno internazionale di studio per il quinto centenario della nascita, 29 – 31 Maggio 1978* (Castelfranco Veneto, 1979), 219-20. See also, Fabrizio Mancinelli, 'Il Ponte di Michelangelo per la Cappella Sistina,' *Rassegna dell' Accademia nazionale di San Luca*, n[os] 1-2 (1982), 2-7.
44 Gianluigi Colalucci, 'Mostra restauri in Vaticano,' *Bollettino: Monumenti, Musei e Gallerie Pontificie*, IV (1983), 143.

haste, he had no choice but to paint in true fresco. In either case, frequently his procedure was to begin by laying in large areas of ungradated ground colour, thereby establishing the general composition. Working without cartoons, this required an astonishing capacity for synthesizing form into what amounted to abstract masses of light and dark colours. The only precedent for this kind of painting, and it is a very limited precedent, was the habit in Florence of laying in *terra verde* as a flat ground colour for areas of flesh, as Ghirlandaio did for his frescoes (FIG. 12). Here you see his *Deposition* from Ognissanti from the back of the *strappo* after the removal of the paint film from the plaster.

To return to Michelangelo's lunettes, after laying in the ground colour, he worked up the forms by further masses of colour. Rarely does one see here any network of hatched strokes save for an occasional highlight on a knee or forehead. The immense *giornate* and the speed required by true fresco for these compositions meant that the artist, for the most part, used large brushes in great bold strokes. Everywhere, the ground colour contributes to the realization of the forms: either it was left exposed to function as depth or surface, or, it was allowed to show through via transparent washes.

Michelangelo's procedure revolutionized painting; one sees this on panels and canvases as well as murals. And although Raphael for the rest of his career clung to cartoons and *modelli* in preparing his murals, he too began to compose in broad masses of light and shade. This greatly simplified procedure has recently been noted in the technical examination of the Sistine *Madonna* which is dated 1512/13[45] and it is also to be seen in the tapestry cartoons for the Sistine Chapel. In the Vatican Stanze after 1512, this broader, simpler handling appears not so much in the preliminary lay-out of ground colour as in the massive distribution of velvety light and shade across the surface.[46] What Raphael's procedure was for the *School of Athens* still remains to be seen.[47] In any case, stimulated by Leonardo, Michelangelo, and possibly by Sebastiano del Piombo[48], Raphael adapted the procedure of broader handling to suit himself.

Between 1508 and 1511 a new Roman style was formulated by Raphael and Michelangelo in the Vatican. Their technique and style (and the two are interdependent) were immediately taken up in Florence. In this regard, Mancinelli has already mentioned Pontormo and Rosso Fiorentino especially with respect to Michelangelo's Sistine lunettes.[49] I would venture another example: Andrea del Sarto's Scalzo frescoes painted between 1511 and 1526. Because of local conventions, these murals were conceived as *grisailles*. However, I have long wondered if aesthetic preference on Sarto's part was another important factor. Aside from Fra Bartolomeo's cartoons for nearby San Marco and the two lost *Battle* cartoons by Leonardo and Michelangelo, Sarto may have studied Raphael's Ambrosiana cartoon even though he would have had to go down to Rome to see it. Not

FIGURE 12. Ghirlandaio, detail of the Ognissanti *Deposition*, viewed from the rear surface of the *strappo* (Photo: Nadir Tronci).

only was the cartoon another monumental *grisaille* rendered in the new heroic style with statuesque figures exalted by elegant draperies, but the very nature of this cartoon for an entire scene was something else Sarto also appropriated (FIG. 13). Throughout the *Baptism* (ca. 1511), the *Preaching of the Baptist* (finished by 1 November 1515), and the *Baptism of the Multitude* (finished before March 15th 1517[50]), *spolveri* are visible even in the smallest details of the landscape. Then there is the further fact, that especially in the later scenes, Sarto, like Michelangelo (of the Sistine lunettes), resorted to the preliminary procedure of laying out his compositions via large areas of flat, ungradated ground colours (FIG. 14).

45 Weber, 27-28.
46 During the cleaning of the *Expulsion of Heliodorus*, a small area was exposed — the residue from the *strappo* of one of the avenging angels — where one can see that Raphael did not start out, as Michelangelo did in the lunettes, by laying in broad areas of ground colour; D. Redig De Campos, *Raffaello nelle Stanze* (Milan, 1965), plate xlv, 25; and Mancinelli, in *Raffaello nel Vaticano*, 194.
47 A project to be undertaken with Dr. Mancinelli and Prof. Matthias Winner.
48 See also Aldo Angelini's discussion of Sebastiano del Piombo and Raphael at the Villa Farnesina in the forthcoming volume *Tecnica e stile* (see note 19).
49 F. Mancinelli, 'Die Restaurierungen der Lunetten-bilder Michelangelos in der Sistinische Kapelle,' *Kunstchronik*, xxxvi (1983), 122.
50 John Shearman, *Andrea del Sarto* (Oxford, 1965), vol. 1, 61; vol. ii, 299, 300.

FIGURE 13. Andrea del Sarto, detail of the *Annunciation of Zacharias*, 1523. Florence, Chiostro dello Scalzo (Photo: Soprintendenza alle Gallerie, Florence).

This is very clear in the *secondo strappo* of the *Birth of the Baptist* painted in 1526. The same procedure was probably used in the *Annunciation to Zacharias* (FIG. 13) and the Herod scenes where Sarto with economy and audacity built up the forms in much the same way as Michelangelo did. This would suggest that while in Rome, Sarto's style, like Raphael's, experienced the impact of Michelangelo's painterly innovations.

This dramatic pictorial style involving grandiose actions and lofty idealism – often cast in a very large scale – was based on a technique of appropriately heroic proportions. Together they constituted the kind of painting associated with the High Renaissance and Baroque, the Roman style equated with grand gestures, bold strokes, and dramatic lighting. It was a Roman style to be sure, but a style formulated by painters from Urbino and Florence, who were absorbed and transfigured by the metropolis.

I am fully aware that the evidence presented here for the influence of technique on style is scanty to say the least. This is because the material at present at our disposal is limited to the surviving drawings and what has been learned from relatively few restoration campaigns. Undoubtedly, much more will be learned from the participants in this symposium as well as from the records of future restorations.

As a postscript, it is sad to report that although mural painting as a field of art historical study is enjoying a revival, the technique is no longer taught at the art schools of Florence. Hopefully, this is not the case in 'Roma scuola del mondo.'
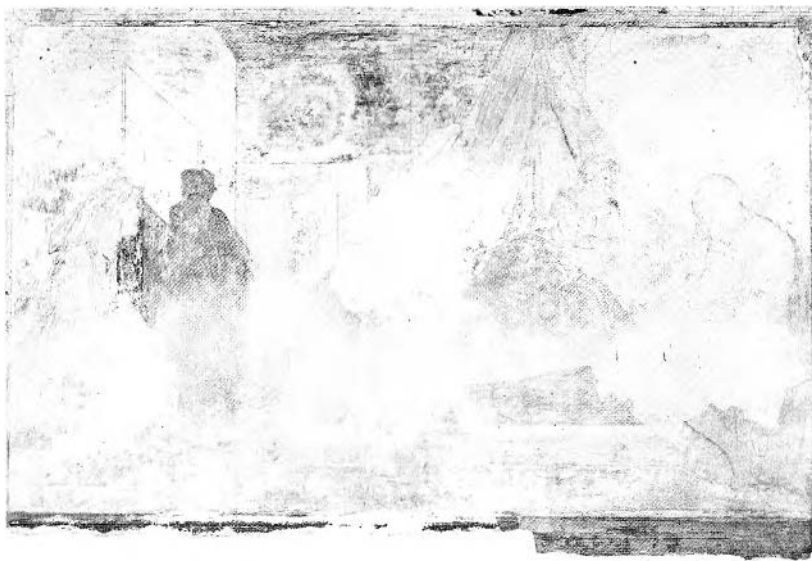

FIGURE 14. Andrea del Sarto, *Secondo strappo* of the *Birth of the Baptist*, showing areas of preparatory ground colour. Florence, Chiostro dello Scalzo (Photo: Soprintendenza alle Gallerie, Florence).