

The impact of oil; a history of oil painting in the Low Countries and its consequences for the visual arts, 1350-1550.

Summary

The aim of the project is to write an integrated history of the introduction, dissemination and development of the use of oil media in panel painting from 1350 to 1550. Even though the importance of the introduction of oil for the art of painting can hardly be overrated, such a history has never been the subject of a monograph.

Even though oil was used in various ways well before 1350, it is clear that entirely novel avenues were opened up from then on, and in particular with the Van Eycks around 1400. The art of Van Eyck and his colleagues in the Low Countries became widely famed in fifteenth-century Europe, and the general picture seems to be that in the wake of this prestige particular pictorial motifs and painting techniques migrated to various regions in Europe. Oil had become the most important medium by the beginning of the sixteenth century, and was to remain so until the end of the nineteenth century.

Three types of source are available for the writing of such a history. First there are *written* sources relating to both the production and the reception of oil painting. Then there are the *iconographical* sources, comprising images of painters and workshops (which may present visual evidence concerning implements and workshop practice), and specific motifs (the dissemination and popularity of which were clearly related to the specific potential of painting in oil). Lastly, and quite importantly there are the *material* sources, that is to say the works of art themselves, and their physical and technical properties. Each type of source will be dealt with separately, and the results will be integrated in the planned monograph. The programme thus entails several interdependent projects:

- a compendium and database of written and visual sources
- a study and evaluation of the existing results of technical research into painting techniques in the period, and the examination of a selected group of relevant paintings, including comparative research of the pictorial effects of different oils and emulsions by means of technical studies and occasional reconstructions
- a dissertation on essential aspects of oil painting techniques at the beginning of the period of study
- a dissertation on major developments within the craft of painting with the arrival of Italian influences in the northern workshop from 1510 onwards
- studies on the dissemination and spread of oil techniques and pictorial repertoires in various regions in Europe

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- a study of the effects of the achievements in oil painting on the other arts
- the synthesis mentioned above, describing and analysing the potential and inherent power of oil, the rise and dissemination of oil painting, as well as the ways in which it took on a dominant role in the painter's workshop.

2. Principal applicant

Prof. J. Stumpel, chair of Iconology and Art Theory, University of Utrecht

3. Co-applicants

Prof. Jan Piet Filedt Kok, chair of Workshop Practices, University of Amsterdam

Dr Ann-Sophie Lehmann, University of Utrecht

Dr Arie Wallert, museum scientist, Rijksmuseum, Amsterdam

4. Previous and future submissions

The project was submitted in a different form in September 2005.

5. Institutional setting

University of Utrecht and University of Amsterdam; Research Institute for History and Culture (OGC), University Utrecht; Institute of Culture and History (ICG), University of Amsterdam; The Dutch Postgraduate School for Art History (OSK)

6. Period of funding

March 2007-March 2012.

7. Composition of the research team

Prof. Jeroen Stumpel, University of Utrecht;

Prof. Jan Piet Filedt Kok, University of Amsterdam, and senior curator of Early Netherlandish Paintings, Rijksmuseum, Amsterdam

Dr Ann-Sophie Lehmann, University of Utrecht

Dr Arie Wallert, museum scientist, Rijksmuseum, Amsterdam

Dr Mark Clarke, technical art historian, UvA and University of Cambridge

2 AIOs (PhD students) (to be selected)

The research team consists of art historians of four generations with varying backgrounds, skills and specialisations, all with considerable research experience and a strong interest in the subject. The applicant holds the Utrecht chair in iconology and art theory, and has published on art-theoretical issues of the period in connection with questions of image construction in art both north and south of the Alps

The senior member of the team, Jan Piet Filedt Kok defended a dissertation on Lucas van Leyden in 1980, one of the first attempts to incorporate the results of the study of underdrawing in art history. He recently presented a paper on St Luke as a source of information about the practice of early Netherlandish painting.

Ann-Sophie Lehmann recently defended a dissertation on the nude and the painting of flesh tones in fifteenth-century Flemish painting (an English edition will be published this year), and has published on various aspects of painting techniques, partly within the broader context of media studies.

Arie Wallert developed from a historian of medieval art with technical interests into a scientist bridging the gap between both disciplines, which has resulted in many publications, one being the exhibition and catalogue *From Tempera to Oil Paint*, which presents the results of fresh technical art history for a broad public, and recently a work on Ter Borch's painting techniques.

As post-doc for the compendium of sources we propose Mark Clarke, Hamilton Kerr Institute in Cambridge, who has wide experience in researching medieval sources on painting, and who recently participated in the De Mayerne project. As regards the profile of both AIOs (PhD students), we will be looking for art historians with a specialisation in technical and material research, preferably SRAL or similarly trained conservators with a degree of experience in this area.

There will collaboration with various specialists regarding documentary sources and the socio-economic aspects of artistic production.

Structural collaboration has been planned with the Rijksmuseum, Amsterdam (where research will be done in the coming years in connection with the catalogue of early Dutch paintings, a number of which will be restored) and other Dutch and Belgian institutions. Close cooperation has been agreed upon with the Stichting Restauratie Atelier Limburg (SRAL), the Instituut Collectie Nederland (ICN), the Centre for the Study of Fifteenth-Century Painting in the Southern Netherlands, Brussels, the IRPA/KIK, Brussels, and the Netherlands Institute for Art History (RKD), The Hague.

Similarly, cooperation is planned with curators, painting conservators, conservation scientists and other researchers in Antwerp, Brussels, Bruges and Rotterdam.

There will also be cooperation with specialists in other European museums: Berlin (Gemäldegalerie), Dresden, London (National Gallery), Paris (Louvre), etc., as well as American museums: New York (Metropolitan Museum), Washington (National Gallery) and others.

An international advisory board of specialists in the different research fields of the program will be established, and will meet on a regular basis to monitor the project and provide feedback where necessary.

8. The structure of the proposed research

The bedrock for all the researchers in the programme will be the *compendium and database of sources*, to be compiled and commented upon by an experienced researcher in the field working in close cooperation with the ICN in Amsterdam, where a collection of recipes, treatises, images and descriptions has been compiled in the course of many years. This compendium will be consulted and enriched by all the participants in the programme. It is for this reason that it will be the first project to actually start. After a year, this initial phase of the programme will culminate in a colloquium about the painter's workshop and the craft of early Netherlandish painting, in which an international group of specialists in the field will be invited to participate.

In addition to this post-doc project, a second basic project will be initiated half a year after the start of the programme and will be carried out by AIOs under the guidance of various participants in the programme. This second project entails *art-technological research of a coherent selection of key works* that can safely be assumed to have played an important part in the history of the craft, and/or can be regarded as exemplary for certain aspects of it. The investigation of the selected key works will be completed in the third year of the project, and the results will be incorporated in the databases and be made accessible on a website. Questions concerning matters on the technical and molecular levels defined by these investigations could be examined further using a range of analytical methods. By this time, contributions to congresses or scholarly journals will have been made.

Some of these contributions will be spin-offs from the work on the *two dissertations* that form part of the programme, to be written by the AIOs, as mentioned above. These dissertations will focus upon two important moments in the history of oil painting in the Low Countries, when in addition to new iconographies new techniques were also introduced: the period around the Van Eycks on the one hand, and the development of painting between 1510 and 1530 on the other, when, together with Italianate influences, definite changes can be observed in the painter's craft.

A second colloquium, at which the first results of the research will be presented and discussed, will be held at the end of the fourth year.

The programme will furthermore lead to a number of publications in scholarly journals (for example on the pre-Eyckian history of oil, and on the iconography of the studio). All these studies will be fundamental for the final and culminating project, to be composed and completed during the fourth and fifth years: a *synthesising monograph on the impact of oil*.

9. Description of the proposed research

The beginning of the fifteenth century witnessed a major revolution in the history of painting and its techniques that was brought about by the integral application of oil media in panel painting. Traditionally this innovation has been ascribed to Jan and Hubert van Eyck, painters active in the Low Countries between 1400 and 1440. The new use of this material proved to have profound consequences for the appearance of paintings, for standards of successful mimetic representation, and for art theory. So much so, that in 1604 Karel van Mander even compared the discovery of oil paint to the invention of book printing and gunpowder. This may sound a little exaggerated, but for the history of painting (and for the production of images in general) the introduction of this new medium was indeed a radical phenomenon.

One may, of course, argue that the early historiographers (Vasari, Van Mander) were wrong in thinking that Van Eyck or his contemporaries in the Low Countries introduced an important novelty, or that the achievements and innovations of Van Eyck were not related in an essential way to the oil medium. We do know that oil paint was used before Van Eyck, and one could argue that the spectacular refinement, as well as the expression of various materials that we witness in Flemish works, might have developed in other media as well. But the fact is that this did not happen in panel painting. It was only after the introduction of the integrated use of oils that some artists in other regions (Ghirlandaio in Florence, for instance) tried to achieve similar effects in tempera. And it is clear that oil was considered the most potent medium from early times until well into the seventeenth century.

So it is no exaggeration to say that oil paint would change the face of *Pictura* for good. It left a great imprint not only on painting itself but on the other visual arts as well. From mosaics to tapestry, from fresco to stained glass, no medium was left unaffected by the success of the new oil technique for representing the visual world. The virtues and vices of painting in oil were discussed until deep into the twentieth century, and the techniques and uses of painting in oil have undergone many changes between Jan van Eyck and, say, Karel Appel. Arguably, no other invention contributed so much to the specific identity of the visual arts in the west, and to the privileged position painting managed to acquire among those arts.

Surprisingly, the origins and subsequent history of oil painting, its effects, and its reception in art theory, have never been the subject of integral research and historiography. While the invention and development of linear perspective, for instance, has given rise to a vast number of

publications, oil paint has come off very poorly indeed. Against the many hundreds of books devoted to perspective there is not one single monograph about the history of oil paint (apart from a number of mostly nineteenth-century publications of documents, recipes and so on about painting methods and materials). This in spite of the undeniably great importance that the phenomenon has had for art history: from the status of painting itself to decisive stylistic and formal developments within this art, from new workshop practices to sustained debates in art theory.

At least two factors have contributed to this lacuna in scholarly literature about the actual history of art. One concerns the prestige of theory and explicit theoretical knowledge in the academies of art, which had its counterpoint in the low status accorded to colour and the material aspects of painting. This attitude also expressed itself in a great reverence for the Italian tradition (proportion, perspective), with a concomitant disdain for northern and Netherlandish art. A second important factor is that the study of the history of oil paint (and painting techniques in general) requires a deeper probing into the physical conditions of works of art from the past than, say, the study of perspective. Chemistry and physics are indispensable guides. So both a lack of prestige and a lack of scientific methods for the investigation of older paintings contributed considerably to this neglect of the practice of painting in the historiography of the visual arts.

In recent times, however, both such impediments have been largely overcome. As regards the art of the fifteenth and sixteenth centuries, for instance, we are witnessing ever-more articulated attempts to restore the balance in appreciation between the arts north and south of the Alps. At the same time, technical and scientific investigation of the physical condition of works of art has progressed tremendously, both in method and in scope. It is a pity, though, that such research has not always been integrated with art-historical research proper. In the course of the last few decades, a great amount of data has been published on material and technical aspects of paintings of the period, especially about underdrawings. Such data were often obtained in the context of conservation and restoration campaigns. They offer a great deal of information about the genesis of the individual paintings, the practices of individual artists and workshops, etc. Integration in a broader art-historical framework, let alone a synthesis, has barely been attempted.

Here it is proposed to write such an integrated history of oil painting in the Low Countries, and of its impact on the visual arts, from the time of its introduction to the moment when it had established itself throughout Europe as the pictorial medium *par excellence*.

It is the express intent of this programme to combine and integrate different methods and disciplines from an art-historical point of view: studies of style, studies of art theory, historical studies of craft and technology, and

information from the technical and scientific examination of paintings and paint materials.

This proposal concerns a research plan that must result in a synthesising monograph: *The impact of oil, 1350-1550*

The book will describe the history of the emergence of oil painting, and its relevant history before Van Eyck. It will analyse and describe technical and stylistic innovations in oil painting in the works of the Van Eycks and their contemporaries, discuss the general evolution of the technique during the fifteenth century, as well as its spread from Flanders to other regions in Europe until 1500, and assess the dissemination of a number of iconographical motifs associated with this migration. It will analyse why oil paint had the potential so drastically to enrich the pictorial arsenal for certain forms of realism, and will investigate the consequences of the new standards of realism for the other visual arts. It will also present an overview of the rise of an iconography of the studio, and the changing image of the painter, chart the history of fundamental changes in technique and working methods in the Low Countries c. 1510-30, and consider the general evolution of the technique until 1550. It will examine the consequences of oil paint for art theory, such as the emergence of the seminal *colore-disegno* debate, which originated with the arrival of oil techniques (and was to continue in different forms long after the period studied). The book ends around 1550, when entirely new opportunities and markets had opened up, largely in response to the new technology for the production of representations in oil paint.

An essential element of the research programme will be the exchange and dialogue between art-theoretical and art-historical questions and the results of scientific and technical analysis. A starting point is what is known about the painter's workshop and the craft of painting in this period, based on written, visual and other sources. The programme will start by creating a database of those sources. In order to combine and integrate art history with technical research, attention will be paid to the rendering and suggestion of materials and textures. From the very start the great achievements in this field in the art of the period were seen as directly related to the new technology of oil painting. Another related database of relevant images must therefore be made available to permit comparison between various ways and methods for distinct but essential tasks: the construction of flesh tones; light reflections, water, brocades, vegetation, fur, and polished objects.

Relations between possible developments for simplifying the structure of paint layers will be important here, as will differences in the rendering of particular materials by means of the precise and meticulous, often laborious applications of paint layers, versus approaches where the visibility of the

actual brushwork is employed to conjure up textures by suggestion rather than by definition.

The innovative as well as traditional aspects of the development of pictorial construction in the Low Countries will be studied and investigated using a number of carefully chosen key works from the fifteenth and sixteenth centuries. Scientific examination of these key works is preferably done *in situ*, with non-destructive methods. However, it is the express intention to determine differences in the sequence and structure of paint layers, variations that may do much to explain wider diversities in technical approach and specific pictorial effects, and may help to provide a far better understanding of the grammar of pictorial realism in Netherlandish painting from Van Eyck until Bruegel's generation.

As much as possible, paintings will be selected for which the commission and provenance are known, and for which data can be obtained from physical and scientific research. Where relevant restoration projects are in progress, samples can be taken, and specific research can be carried out on the paint layers. This will be implemented in close cooperation with the museums (Amsterdam, Antwerp, Bruges, Leiden, Rotterdam, etc.) that own important paintings to be restored in the coming years. Close cooperation is also foreseen with the staff and restorers of museums and institutions such as the RKD, IRPA and the Brussels study centre, which have scientific research material on paintings that have already been restored. Sample material taken in the past and new material will be examined or reexamined using various analytical methods.

The choice of key works has also been based on the (surmised) occurrence of pictorial innovation. Here one must think of changes from pre-Eyckian to Eyckian techniques, developments in the work of Campin and Van der Weyden, the extension of the colouristic potential and atmospheric qualities in the work of Hugo van der Goes, and processes of simplification or refinement in the work of Hans Memlinc and Gerard David. In the northern Netherlands there is the beginning of oil painting prompted by Flemish examples in, for example, Albert Ouwater and Geertgen tot Sint Jans, and anonymous artists like the Master of the Virgo inter Virgines. Increased transparencies, as well as a shift in the role of landscape, deserve particular attention here. In the sixteenth century one finds such developments as thickly applied highlights and the full use of transparent and thin paint layers, and a trend towards thinner paint layers and a more transparent architecture of the paint surface, leading to novel methods and effects. It will also be important to investigate further the role of tinted *imprimatura*. The knowledge of pictorial innovation in this period will also contribute greatly to a better understanding of the reception and reputation of early Netherlandish painting within the frameworks of cultural history and art theory

The research team will combine traditional art-historical and art-theoretical methods and approaches with physical and technical research (for which the foundations have been laid and developed in the past few decades), together with the input of a new generation of conservation scholars.

One of the added values of the proposed project concerns the role this research may play in the teaching programmes in Utrecht and Amsterdam at various levels in the curriculum, and more particularly in the teaching and research programme being developed at the University of Amsterdam, now that the School for Restoration (formerly at the SRAL) is in the process of being integrated in the University of Amsterdam.

Projects within the programme

A) Compendium of sources about workshop practices related to painting with oil-based media in the Netherlands in the fifteenth and sixteenth centuries

During the initial stage of the programme a leading and central role will be played by the post-doc in creating the database mentioned above (Section 8). The post-doc will also conduct research into workshop practices related to oil-based media from a variety of sources for the given period. Much material of this kind has already been collected and been made more or less available (both in published form, and through the *ArTeS* database at ICN and the *Datenbank kunsttechnologischer Rezepte* at the Fachhochschule Köln), but a complete overview or publication is still lacking. The database should preferably be constructed in close cooperation with ICN, where Amsterdam Stijnman agreed to be consultant for this project.

Such a database will be compiled in the first six months of the project. A second related database for visual and technical information connected with investigating the selected key paintings (see Project B) will also be compiled in this period by the post-doc. Throughout the programme, the post-doc will remain responsible for the moderation of both systems on a part-time basis.

Apart from the databases, this project will result in a paper for the colloquium on the painter's workshop and the craft of early Netherlandish painting in the spring of 2008, and in a published compendium of source material with a scholarly introduction.

To be executed by a post-doc with experience in this field, full-time for the first six months of the project and part-time for the rest of the programme.

B) The technical and physical investigation of a number of key works in the development of early Netherlandish painting

In this project, the traditional and innovative aspects of the pictorial construction and the structure and sequence of paint layers will be studied on the basis of a carefully selected core group of about 25 paintings. Two or three from the pre-Eyckian period; of the Flemish primitives works by Jan van Eyck, Robert Campin, Rogier van der Weyden, Dieric Bouts, Hugo van der Goes, Hans Memlinc and Gerard David; from the fifteenth-century Dutch painters, works by Ouwater, Geertgen tot Sint Jans and the Master of the *Virgo inter Virgines*. From the sixteenth-century northern Netherlands: works by Cornelis Engebrechtsz, Lucas van Leyden, Jan van Scorel and Maarten van Heemskerck; from the southern Netherlands works by Jan Gossaert, Quenten Massys and Barent van Orley. A provisional list of paintings to be investigated has been compiled (see Appendix A), but the final selection will be made in the first year of the programme after consultation with the advisory committee and the museums involved. Works will be chosen that can be considered key both in the development of painting in the period, and within the oeuvres of the respective artists, works whose production has preferably been historically documented to some extent, and on which at some point in the more or less recent past technical and physical research has been done (often in combination with a restoration campaign). A considerable amount of research material and data has been obtained in this area, but it has seldom been interpreted and published in its entirety, let alone been studied from the perspective of broader research questions and problems.

Working in close collaboration with the programme researchers, two AIOs will scrutinise the paintings *in situ* with a stereo microscope and digital CCD microscopy. Such investigations will be informed and supplemented by an analysis of the available data (X-radiographs, infrared photographs and reflectograms, paint samples and other technical data, restoration reports, etc.). Where previous results of infrared reflectography or radiography are absent and are nevertheless required, works will be examined using these techniques.

Apart from the technical and painterly construction of these works, changes during creation, etc., an important and recurrent point of focus will be the rendering of particular objects, structures and materials. The often astonishing achievements of early Netherlandish paintings in such areas has generally been related to the use of oil. The database for visual and technical information (referred to in Section 9A) will utilise data from this research of relevant images. Various procedures and strategies of different painters will be recorded and compared with recipes and instruction described in the written sources, all this again with particular attention to various aspects of the pictorial representation, such as the construction of flesh tones, light reflections, water, vegetation, rocks, cloth, brocades, shiny and polished objects, and so on. Differences in the sequence and structure of paint layers

will sometimes be established anew, as knowledge of such differences may contribute considerably to a better understanding of the diversity of technical procedures and specific pictorial and stylistic effects. These results can be supported or questioned by material reconstructions.

The combination of systematic analysis of the available data with new visual and microscopic research is essential for answering many important questions, and will yield significant new insights.

Consequently, existing or freshly taken sample material will be studied with various techniques of microscopy, spectrometry, and chromatography. In the literature on the subject, different types of oil (linseed, poppyseed, walnut) have been identified or conjectured in different combinations and for different pigments. Variations in the treatment of the oils (cold-pressed, heat-bodied, etc.) and/or various additives (resins, calcium, copper, and lead salts) and driers have also been reported. Combinations with tempera, either in mixtures (*tempera grassa*) or in different layers also need investigation.

The variations in the application of different media for different paint layers will be examined with histological staining of paint cross-sections under the light microscope and in the scanning electron microscope, as well as with spectrometry and chromatography.

In this respect it is very fortunate for the project that a number of the key works by the painters involved will be restored in the near future. Furthermore, several specific and relevant research projects have recently started, or will start soon, such as the well-advanced project on an important group of pre-Eyckian paintings directed by Cyriel Stroo of the Centre for the Study of Fifteenth-Century Painting in the Southern Netherlands; the project of the museum in Brussels to catalogue both their important collection of Flemish Primitives and paintings by Barent van Orley. In the Rijksmuseum, a group of late fifteenth-century Dutch paintings by Geertgen tot Sint Jans, the Master of the *Virgo inter Virgines* and other artists will be treated in 2006/2007; the Lakenhal in Leiden is currently restoring a triptych by Cornelis Engebrechtsz. In the Museum voor Schone Kunsten in Antwerp, major works by Rogier van der Weyden and Quentin Massys will be treated in the near future. The Groeninge Museum in Bruges has advanced plans for the *Death of the Virgin* by Van der Goes. The project will profit directly from the ensuing technical investigations of these campaigns.

This project will furnish the basic material, data and insights for Chapters 2 to 4 of the monograph, and will result in two dissertations by both AIOs (see D and E in this section). As regards the profile of both AIOs: art historians with a specialisation in technical and material research,

preferably SRAL or similarly trained conservators with a degree of experience in this area.

2 AIOs, Dr Arie Wallert, Prof. Jan Piet Filedt Kok

C) A prehistory of oil. The early use, geographical dissemination and artistic developments of oil paint in Europe prior to Van Eyck.

This project will investigate or reinvestigate existing research on pre-Eyckian oil paint and present a first historiography of the techniques and various pictorial repertoires throughout Europe. The aim of the research is to arrive at a thorough understanding of the technical and artistic preconditions for the breakthrough of oil paint as the principal painting medium.

The use of oil paint has a fascinating historiography of its own in early modern times. Most important were the contributions of Vasari and Van Mander in establishing the view that the use of oil was born all of sudden in the Van Eyck workshop. In the late eighteenth century, Lessing's discovery of Theophilus's painting treatise from the twelfth century in the Wolfenbüttel library proved that oil paint must have been used in some way long before the Van Eycks. Ever since, scholars have gathered source material to amass the evidence of pre-Eyckian oil paint in various European countries. Since the 1960s they referred to the use of the evolving scientific methods and instruments for analysing binding media. Yet, while the story of Jan van Eyck's "invention" has been told and re-told many times, the research on pre-Eyckian oil paint remains scattered and available only to specialists.

To date, there is no integral account of the developments leading up to the spectacular rise of the new painting medium in Flanders. In order to write this early history, comparative research will be carried out on published material, focusing on the geographical spread of oil paint throughout Europe (I), the empirical analysis of paint surfaces on which oil paint was used, i.e. furniture, buildings, panels, sculpture (ii), and the subjects painted, i.e. the nature of decorative or figurative elements (iii). With such data as a basis, a better understanding will be gained of the technical and artistic preconditions of the Eyckian turning-point. The material studied will include well-researched works, such as the *Grudziadz altarpiece*, the paintings of Master Theodorik in the Czech Republic, and the *Abegg frontal* from Catalonia. From the British Isles the *Thornham Parva retable* and its counterpart in the *Musée de Cluny frontal*, and the Westminster and Despencer retables present interesting examples. Exemplary work can be found in the well-studied Scandinavian altar frontals (i.e. *Antependium of Tresfjord*). Later developments at the end of the fourteenth century in Westphalia and in the Guelders, Mosan and Lower Rhine regions (Master

Bertram, Maelwael, Broederlam, *Wilton diptych* and others) will also be considered, as will all research carried out on Flemish panels immediately preceding the generation of the Van Eycks (i.e. Walcourt panels, Baltimore-Antwerp quadriptych). The project will both benefit and benefit from the work of the AIO concerned with the study of the Eyckian turning-point (Project D). Some of the planned research is closely related to the great research project on aspects of pre-Eyckian art by the Centre for the Study of Fifteenth-Century Painting in the Southern Netherlands at the KIK/IRPA in Brussels, directed by Dr C. Stoo. Agreements on close cooperation have been established.

Dr Arie. Wallert (partly replacement), Dr Ann-Sophie Lehmann (P.M.)

D) The Eyckian turning-point; technical and stylistic innovations in oil painting in the works of the Van Eycks and their contemporaries, 1420-1450 (dissertation)

There is no doubt that the work of the Van Eycks has had a great impact on the art of painting in the Low Countries and far beyond. The goal of this project is to describe the nature of that impact on the actual craft of painting in the years contemporary with or directly following the activity of the Van Eycks. The aim is not to unravel the alleged "secret of Van Eyck", as has been attempted by so many scholars and critics before, but rather to establish by means of the comparative study of a number of important cases precisely how and where the example and prestige of Van Eyck may have influenced the craft of painting in oil in the Low Countries, and whether, or in what way, procedures and traditions came to be established. In the past decades there has been excellent research on individual artists or even art works (i.e. Robert Campin: *New Directions in Scholarship*; Rogier van der Weyden's *St. Luke drawing the Madonna*; Van Eyck, *Investigating Van Eyck*), allowing results of technical research to be combined with new historical insights. This project intends to perform comparative research based on these results to try and establish a larger picture of the situation around 1430. How did the new medium develop; where can we describe the 'Eyckian Turn' with greater precision and understanding? The analysis will have to focus on those aspects of the craft of painting that are related to a number of selected recurring themes, such as flesh tones, hair, brocades, reflecting surfaces, and elements of landscape. Close scrutiny will have to establish as far as possible whether and where themes travelled with techniques. The planned research will profit greatly from projects B and C, and vice versa.

AIO (PhD, University of Utrecht)

E) New visions, new markets, new methods: changes in the craft of oil painting in the Low Countries 1510-1530 (dissertation)

From the early sixteenth century onwards it is quite clear, even to the untrained and naked eye, that the technique of painting in the Low Countries begins to change drastically. Both the surface as well as the structure of paint layers make panels of the early decades of the sixteenth century look quite different from Netherlandish painting in the fifteenth century. As it happens, this development coincided with the import of Italianate influences in the iconography. Is there a relation between the two phenomena? In Van Mander, we see precisely how contemporaries commented on the way Heemskerck's technique had changed since he had returned from Italy, and not for the better. But Heemskerck is said to have reacted by saying that he did not know what he was doing before he went to Rome. It must be established what role Renaissance attitudes and views may have played in the craft of painting at the time. Or is it rather the adaptation of working procedures to the efficiency of production required by the emerging phenomenon of the art market? It is anyway obvious that during this very period one can discern such developments as the full use of transparent and thin paint layers, thickly applied highlights, the introduction of tinted *imprimatura* and the use of *changeant* colouristic effects in Antwerp. In the northern Netherlands the trend towards thinner paint layers and a more transparent architecture of the paint surface continued, leading to novel methods and effects in the work of Cornelis Engebrechtsz and Lucas van Leyden. All of this, together with more efficient and simple procedures, contributed to a leading role for Jan van Scorel and Maarten van Heemskerck.

Much stylistic and iconographical research has been done on the supposed introduction of the Renaissance in the north, but a direct link on the level of technique has hardly been discussed. Similarly, intriguing work has in recent times been done on the growth and nature of art markets in the period. Although a relation between market and methods of painting has been proposed for painting in the Netherlands during the first decades of the Golden Age, the matter has not been investigated in any depth for this earlier period, even though it may be argued that it was here that the foundations were laid for the approaches and procedures that contributed so much to the nature of painting in the early years of the seventeenth century.

The precise nature of these developments, the historiography of the phenomenon, and important aspects of their explanatory context, will be the subject of the dissertation, always with a strong footing in art-technological research. The planned research will profit greatly from Project B and vice versa – indeed at some points they will overlap.

AIO (PhD, University of Amsterdam)

F) - Synthesising monograph
The impact of painting in oil, 1350-1550

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- The impact of oil on international art theory, 1430-1600.
- Epilogue: historiography.

To be written by Jeroen Stumpel (replacement), Ann-Sophie Lehmann (replacement), Jan Piet Filedt Kok, Arie Wallert (replacement), in cooperation with the post-doc and AIOs.

10. Work Programme

Year 1. Previous to actual start of project: selection of the post doc; to appointed March 2007, and start of selection of the AIO's to be appointed September 2007.

March 2007: Start of project. As indicated in section 8 ('Structure of the programme') the programme will start first of all with the construction of databases (project A), and feeding it with information from the different researchers. The databases will be built and operational by the beginning of November. Meanwhile the two AIO's have been selected. September 1, 2007 they will start with work on the available literature, and enter into project C, together with other researchers of the project. Building up the bibliography for the project by all researchers involved. This will entails the necessary visits to Dutch and Belgian museums and research institutes for both AIO's and the researchers involved. Research in context of the running restoration project of Early Netherlandish paintings Rijksmuseum (project C) in 2007. Investigation of the selected paintings in the Netherlands and at the exhibition in Rotterdam in 2008. First results of source collection project (project A), with a paper (with Filedt Kok) for the international colloquium about painters workshop and the craft of Early Netherlandish painting (March 2008). Start web site of programme

Year 2: Project C continues with technical research of original works in Dutch and Belgian museums (Antwerp, Brussels (Museum and IRPA), Ghent, Louvain), and later in the year to Berlin and Dresden (2 weeks), Frankfurt and Munich (2 weeks), by both AIO's and one of the participating researchers and scholars (concerned with the projects B, D & E). August 2008: Start of work on "The pre-history of Oil" (project D) by Ann-Sophie Lehmann, first phase of which will to be rounded off in December (6 months). Both AIO's complete first chapter (draft) of respective dissertation (december 2008)

Year 3: Technical research of original works in London (1 week), Florence (1 week), Madrid (1 week), New York (1 week). Additional scientific and technical research in collaboration with dr. A. Wallert, ICN and museum and research institutes concerned (projects B and C). April 2008: Start writing chapter by Jeroen Stumpel, to be finished in December (3 months, project E); September 2008: Symposium to be organised on the topic of the project C. Continuation writing chapters of dissertations by AIO's. Writing of material for chapters of book by A. Wallert and Jan Piet Filedt Kok (two months and five months respectively, project e).

Year 4 Rounding off (if necessary) of additional material technical and scientific research; completion or near-completion of dissertations; September 2011, writing of chapters of book by Jan Piet Filedt Kok (six months project E) en Jeroen Stumpel (3 months project F).

Year 5 May: defending of dissertations; May to November: writing of remaining chapters, editing for production of book by Jan Piet Filedt Kok (3 months project F), Ann-Sophie Lehmann (4 months, project e) en Jeroen Stumpel (6 months, project F). December 2012 project concluded.

12. Planned deliverables

- .Database on source for workshop practices in the period (project A)
- .Database of results of technical and physical investigation of early Netherlandish key works (project B)
- .Compendium with scholarly introduction on source material and the .interpretation of such material (project A)
- .Two articles in scholarly journal (Art Matters) on pre-Eyckian techniques;
- .Dissertation on aspects of the Eyckian contribution (project D)
- .Dissertation on development of oil painting in Low Countries around 1520 (project E)

- .Synthesizing monograph on the Impact of Oil (project F)
- .Two international symposia on workshops practice and the historiography of painting.
- .Web-site of programme

13. Short curriculum vitae of the principal applicant

Jeroen Stumpel was born in 1951, studied art history in Utrecht (*cum laude*), obtained his doctorate in 1990 (*cum laude*), was associate professor in Utrecht, became professor in the History of Art in Groningen in 1990, and professor in Iconology and Theory in Utrecht in 1992, a chair he still holds. In 1991 his dissertation was awarded prize by the Praemium Erasmianum Foundation. In 2006 he received the *Wissenschaftspreis* of the Aby Warburg Stiftung.

14. Summary for non-specialists

Geen enkele ontwikkeling in de geschiedenis van de beeldende kunst heeft zo'n invloed gehad op de status en betekenis van de schilderkunst, als de uitvinding van de olieverf. Al eeuwen geleden werden de gebroeders Van Eyck beschouwd als de uitvinders van de olieverf. Hoewel dat strikt genomen niet klopt (olie werd al veel langer voor bepaalde verven toegepast) begon met Hubert en Jan van Eyck in het begin van de vijftiende eeuw wel degelijk een nieuw tijdperk, omdat zij het medium op een nieuwe, complete en geraffineerde manier toepasten. Zij deden dat in schilderijen met zeer gedetailleerde voorstellingen, die meteen als wereldwonderen werden beschouwd. En hoewel het bijzondere karakter van hun werken bepaald niet alleen aan de olieverf was te danken, was het ook duidelijk dat zij zonder dat medium niet zulke resultaten hadden kunnen bereiken. Vanuit de ateliers in de Lage Landen verspreidde het gebruik van olieverf voor schilderijen zich over heel Europa – in sommige gebieden begon men er veel eerder mee dan in andere, maar tegen 1500 was de techniek overal doorgedrongen, en olieverf is eigenlijk nooit meer verdwenen. Door de effecten van illusionisme die met olieverf werden bereikt, kregen ook andere media en kunsten te maken met een nieuwe norm of standaard van realisme. Geen van de andere kunsten (gebrandschilderd glas, tapijtkunst, verschillende vormen van grafiek) bleef onveranderd, en overal probeerden andere media de schilderkunst na te bootsen.

De nieuwe toepassing van olieverf voor schilderijen heeft, met andere woorden, heel grote gevolgen gehad

Gek genoeg is er geen volledige geschiedenis geschreven van deze belangrijke ontwikkeling. Er is wel veel kennis verzameld over de geschiedenis van schilderstijlen, van kunsttheorie, of van pigmentgebruik en schildertechnieken, maar er bestaat nog geen gedegen boek waarin al die

kennis wordt gewogen, geselecteerd en gecombineerd tot een breed, degelijk en duidelijk verhaal over de introductie van olieverf en de gevolgen daarvan. Hier wordt voorgesteld om deskundigen op verschillende gebieden bestaande resultaten van onderzoek opnieuw te bekijken, aanvullend onderzoek te doen, en vooral om ze gezamenlijk zo'n geschiedenis te laten schrijven.

Appendix A

Provisional list of paintings by early Netherlandish artists to be investigated

A final selection will be made in the first year of programme, after consulting the advisory committee and the museums involved.

R: well-documented recent restoration

R*: to be restored in the near future

D: technical research documents available (literature, dossiers, etc.)

Pre-Van Eyck: the *Norfolk triptych* in Rotterdam, and two other paintings selected in consultation with Cyriel Stroo, research project of pre-Eyckian paintings. **Jan van Eyck** (c. 1380 Maaseyck–1441 Bruges): Bruges, GM, *Van der Paele altarpiece*, 1436 [D] [further, the results of the investigations of the *Ghent altarpiece*, Antwerp paintings of *St Barbara* and *The Madonna at the fountain*, the *Dresden triptych with the Virgin and Child* of 1437, and the Rotterdam *The three Marys at the tomb* will be taken into account]. **Robert Campin** (c. 1378 Valenciennes-1444 Tournai): Frankfurt, Städel, *Virgin and Child*, *St Veronica*, c. 1430; and if possible the attributed *Mérode altarpiece* in New York, Met. Cloisters, c. 1426. **Rogier van der Weyden** (c. 1399 Tournai-1464 Brussel): Munich, AP, *The Columba altarpiece*, c. 1450 Antwerpen (MSK), *The Altarpiece of the Sacraments*, c. 1441-45 [R*] [further, the results of the investigations of *The Descent from the Cross*, c. 1435 in Madrid (Prado) will be taken in account]. **Dieric Bouts** (c. 1400 Haarlem-1475 Louvain): Brussels, MRBA, two panels of the *Justice of Emperor Otto*, 1475 [R/D] [further, the results of the investigations of *The triptych of the Holy Sacrament*, 1468, Louvain, St Pieter, will be taken in account [R/D]]. **Hugo van der Goes** (c. 1442 Ghent-1482 near Brussels): Bruges, *Death of the Virgin*, c. 1480 [R*] and/or the Berlin *Adoration of the shepherds* [R*] [further, the results of the investigations of *The Portinari altarpiece*, c. 1480, Florence, Uffizi, and *The Montforte altarpiece*, c. 1470, Berlin, will be taken in account [D]]. **Hans Memlinc** (c. 1440 Seligstadt–1494 Bruges): one documented work in Bruges. **Gerard David** (c. 1460 Oudewater-1523 Bruges): one documented work in Bruges. **Hieronymus Bosch** ('s Hertogenbosch c. 1450-1516): one work in the Prado Museum. **Albert Ouwater** (Haarlem, c. 1430-1465): Berlin, SM, *The raising of Lazarus*, c. 1450 [D]. **Geertgen tot Sint Jans** (Haarlem c. 1465-1485): *The Adoration of the Magi*, c. 1490 [R*] [further, the results of the investigations of *The Lamentation* and *The burning of the bones of St John the Baptist*, c. 1480, in Vienna [R/D] and the Amsterdam *Holy kinship*, c. 1485 [R], will be taken in account]. **Master of the Virgo inter Virgines** (active Delft c. 1490-1510): Amsterdam *Virgo inter Virgines*, c. 1500, and a few other anonymous Dutch paintings [R*]. **Cornelis Engebrechtsz** (Leiden c. 1468-1527): the *Triptych with the Lamentation*, c. 1520 [R*] Leiden, Lakenhal. **Lucas van Leyden** (Leiden 1494-1533): the *Triptych with the Last Judgement*, 1526/27 [R/D], Leiden, Lakenhal. **Jan van Scorel** (Utrecht 1495-1562): *Triptych with the entry of Christ into Jerusalem*, 1526 [D], Utrecht, Centraal Museum. **Maarten van Heemskerck** (Haarlem 1498-1574), Haarlem, Frans Hals Museum, cat. no. 50, *St*

Luke painting the Virgin, 1532 [D] [further, the results of the investigations of the Ghent *Crucifixion*, 1543 [R/D], and the Baltimore *Landscape with the abduction of Helen*, canvas, c. 1540 [R/D], will be taken in account]. **Jan Gossaert** (c. 1478 Meubeuge–1532 Middelburg): the London *Adoration of the Magi*, 1507/08, [R/D]. **Quenten Massys** (c. 1465/66 Louvain–1530 Antwerp): the Antwerp *St John's altarpiece with the Lamentation*, 1508–11 [R*]. **Barent van Orley** (Brussels c. 1492–1542): Brussels, MRBA, *Altarpiece with the visitations of Job*, 1521 [to be investigated in the Brussels research project].

Appendix B

Comprehensive bibliography

For *sources* for painting methods and materials, the nineteenth-century publications by Merrifield and Eastlake (1847 and 1869, reprinted in Dover ed., 1999 and 2000), Berger (1912) and Thompson of 1936 (Dover ed. 1956) etc. are still useful; see most recently Mark Clarke, *The Art of All Colours: Mediaeval Recipe Books for Painters and Illuminators*, London 2001. See for the interpretation Lorne Campbell, 'Reflections on Sources and Reconstructions', in M. Clarke *et al.*, *Art of the Past: Sources and Reconstructions*, London 2005, and other articles in this volume; see further Jill Dunkerton, 'Observations on the Handling Properties of Binding Media Identified in European Painting from the Fifteenth to the Seventeenth Centuries', *Bulletin IRPA* 27 (1996–1998), pp. 287–292. On the painting of flesh tones see Ann-Sophie Lehmann, *In the flesh. Jan van Eyck's Adam and Eve Panels and the Making of the Northern Nude*, Zwolle 2006. The essential source for the theory and practice of early Netherlandish painting is Karel van Mander's *Schilder-boeck*, Haarlem 1604, esp. fols. 1–56: *Den grondt der edel vry schilder-const*, see also Hessel Miedema (ed.), *Karel van Mander: Den grondt der edel vry schilder-const*, 2 vols., Utrecht 1973.

For documentary sources and guild regulations, contracts, accounts, etc., see L. Campbell *et al.*, 'Methods and Materials of Northern European Painting in the National Gallery, 1400–1500', in *National Gallery: Technical Bulletin* 18 (1997), pp. 6–16. For the status of the artist and workshop organisation see J.-P. Sosson and L. Campbell in R. Van Schoute *et al.*, *Les Primitifs Flamands* 1994, pp. 75–99 (and pp. 629–630 for the bibliography), and most recently M.J.P. Martens, 'The Position of the Artist in the Fifteenth Century: Salaries and Social Mobility', in W. Blockmans and A. Janse (eds.), *Showing Status: Representation of Social Positions in the Late Middle Ages*, Turnhout 1999. On the art market see L. Campbell, 'The Art Market in the Southern Netherlands', *The Burlington Magazine* 118 (1976), pp. 188–198, and the bibliography in Martens 1999, p. 388, note 2.

For the artist's workshop see X.B. I Altet (ed.), *Artistes, Artisans et Production Artistique au Moyen Age*, 3 vols., Paris 1986–90; on representations of St Luke: C. Purtle (ed.), *Rogier van der Weyden: St Luke drawing the Virgin*, Boston 1997, and most recently J.P. Filedt Kok, 'De Heilige Lucas tekent en schildert de Madonna', Amsterdam 2006 (with bibliography on pp. 23–29).

A general introduction to the technical examination of ...:

A introduction to the making of early European paintings is J. Dunkerton *e.a.*, *Giotto to Dürer*, London 1991, pp. 136–204. A general introduction to the technical examination of early Netherlandish paintings is J.R.J. van Asperen de Boer *et al.* (eds.), *Scientific Examination of Early Netherlandish Painting*, *Nederlands Kunsthistorisch Jaarboek* 26 (1975), the issue of *National Gallery: Technical Bulletin* 18 (1997) devoted to early northern European painting (ed. L. Campbell *et al.*), and most recently Jeltje Dijkstra, 'Technical Examination', in B. Ridderbos *et al.* (eds.), *Early Netherlandish Paintings: Rediscovery, Reception and Research*, M. Faries, 'Reshaping the Field: the Contribution of Technical Studies', in M.W. Ainsworth (ed.), *Early Netherlandish Painting at the Crossroads*, New York 2001, pp. 70–105, and M. Faries *et al.* (eds.), *Recent Developments in the Technical Examination of Early Netherlandish Painting: Methodology*, Cambridge (Mass.) and Turnhout 2003.

Recent literature on underdrawings and infrared reflectography underlies the exhib. cat. D, Bomford (ed.), *Art in the making: Underdrawings in Renaissance Paintings*, London (National Gallery) 2002, and D. and A. Siejek and K. Kirsch, *Die Unterzeichnung auf dem Malgrund*, Munich 2004.

On technical developments in early Netherlandish painting: J.R.J. van Asperen de Boer *et al.*, 'Painting Technique and Workshop Practice in Northern Netherlandish Art of the Sixteenth Century', in exhib. cat. *Kunst voor de beeldenstorm*, Amsterdam (Rijksmuseum) 1986, pp. 85–116, C. Périer-d'Ieteren, 'La Technique picturale de la peinture flamande du XVe siècle', H.W. van Os *et al.* (eds.) *La pittura nel XIV e XV secolo: illustration contributo dell'analisi technical alla storia dell'arte*,

Bologna 1983, pp. 7-71, and Lorne Campbell *et al.*, 'Methods and Materials of Northern European painting', *National Gallery: Technical Bulletin* 18 (1997), pp. 6-55 (see the notes on p. 44 for further literature)

Much technical examination is included in the volumes of the *Corpus des Primitifs Flamands* and the recently published museum collection catalogues of early Netherlandish (mostly fifteenth-century) paintings of the National Gallery in Washington (1987, John Hand, Martha Wolf), of the Städelsches Kunstinstitut in Frankfurt am Main (1993, J. Sander), of the Museum Boijmans-van Beuningen in Rotterdam (1994, J. Giltaij *et al.*), of the National Gallery in London (1998, L. Campbell), of the *Flemish Primitives* in the MRBA in Brussels (four volumes from 1996 on). Similar catalogues are planned for publication soon by the museums in Chicago, Kansas City, the Rijksmuseum in Amsterdam and, for the Utrecht school, the Centraal Museum in Utrecht (L. Helmus, M. Faries). For the technical examination of early Netherlandish painting, and of Jan van Eyck, the first and most essential publication is Paul Coremans *et al.*, *L'Agneau Mystique au Laboratoire*, Antwerp 1953, P. Brinkman, *Het geheim van Van Eyck*, Zwolle 1993, most recently *Investigating Jan van Eyck*, ed. S. Foister *et al.*, London (National Gallery) and Turnhout 2000, and further Rudolf Priemesberger, 'Zu Jan van Eycks Diptychon der Sammlung Thyssen-Bornemisza', *Zeitschrift für Kunstgeschichte* 54 (1991), pp. 459-489. On the technical investigation of individual artists much has been published in the form of articles in the early volumes of *Studies in Conservation* (from 1952), the *Bulletin de L'Institut Royale du Patrimoine Artistique* (from 1958: *Bulletin IPRA*), the *National Gallery: Technical Bulletin* (from 1977; esp. 18 (1993, with further literature) and in the proceedings of the conferences *Le Dessin sous-jacent dans la peinture*, held biennially in Louvain-la-Neuve from 1975 on, and later in Bruges; and several recent exhibition catalogues.

There are several publications about the early use of oil as a binding medium in painted altar frontals in Norway (1995, 2004 by Plather and Skaug), English examples like the *Wilton diptych* (1997), *Thornham Parva retable* (2004), the Westminster panels (1997), etc. Various contributions on Flemish examples in the *Bulletin IRPA* (1960, 1978-1979, 1984-1985). Further contributions on the pre-Eyckian technique in *Technologia Artis* 2 (1992) and 3 (1993), in *Painting Techniques: History, Materials and Studio Practice*, contr. to the Dublin IIC Congress, Sept. 1998, pp. 22-26; 40-44; 77-81, and *Acta Amsterdam Archaeologiam etc.* 11 (1995) Rome, ed. M. Malmanger *et al.* For the relationship between early Netherlandish and Italian painting see, most recently, Paula Nuttall, *From Flanders to Florence: the Impact of Netherlandish Painting 1400-1500*, New Haven & London 2004