


Gunnar Heydenreich

A detailed oil painting of a man with a full, dark beard and mustache, looking slightly to the right. The background is dark and textured.

L
U
C R A N A C H
A THE ELDER
S

Painting materials, techniques
and workshop practice

LUCAS CRANACH THE ELDER

Lucas Cranach the Elder and workshop,
Neustadt Altarpiece,
1511-13. Retable approximately
700 × 535 cm. Painted surface
of the shutters 268.5 × 100 cm.
Neustadt/Orla, Evangelische
Stadtkirche St. Johannis.



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Lucas Cranach the Elder, detail from *Self-portrait*, 1531. Stolzenfels Castle

Illustration back cover:

Lucas Cranach the Elder, *Two Bohemian Waxwings*, c.1530. Paper, 34.6 × 20.3 cm. Dresden, Staatliche Kunstsammlungen, Kupferstich-Kabinett

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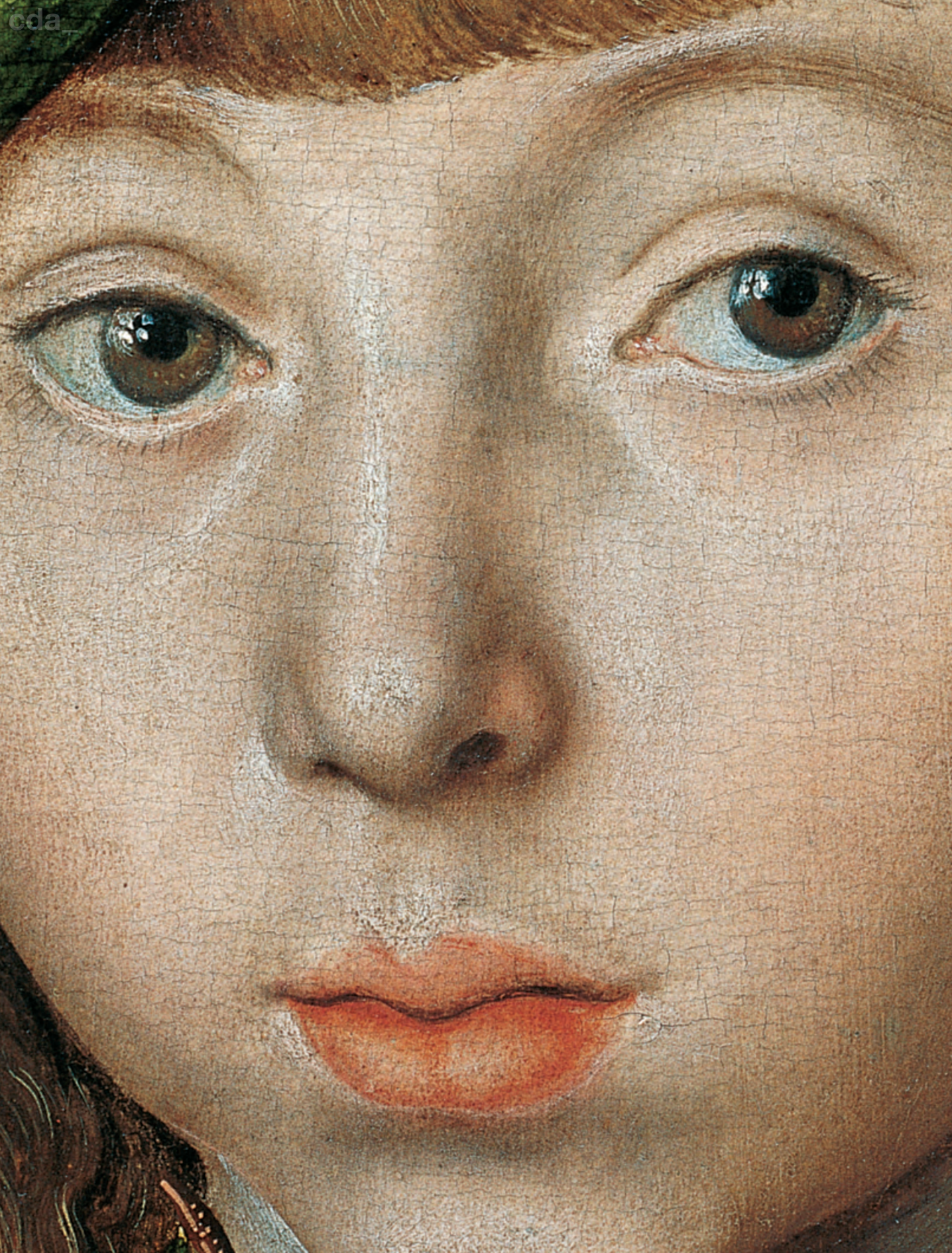
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Page 5

Lucas Cranach the Elder,
detail from **Johann Friedrich
I the Magnanimous**, 1509.
London, The National Gallery.

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Lucas Cranach the Elder and workshop, **Fourteen Helpers in Need**, c.1505/07. Infra-red reflectogram detail.

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Lucas Cranach the Elder and workshop, detail from **Duchess Katharina of Mecklenburg, Spouse of Duke Heinrich the Devout of Saxony**, 1514.

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Preface

‘Each new art form is, in effect, a new technique’
Jede neue Kunst ist letzten Endes eine neue Technik
Max Liebermann¹

Interest in the manual and artistic practices of Lucas Cranach the Elder goes hand in hand with the historic reception of his painted works. The desire to partake in the creative processes, long since completed, is reflected in numerous investigations. Individual aspects of the creation of a painting are explored from varying perspectives and by different methods. However, despite a flow of publications, including scientific results, knowledge of the working procedures adopted by the Wittenberg court painter still remains fragmentary.

1

Lucas Cranach the Elder, detail from **Holy Kinship**, c.1509/10, showing a self-portrait of the artist. Vienna, Gemäldegalerie der Akademie der bildenden Künste.

This study is the first coherent description of the techniques, studio practices and materials used by Lucas Cranach the Elder. The purpose and aim is to increase the understanding of the complex practical crafting skills and artistic activities within his painting workshop. Not only will this reveal a wide spectrum of design elements, but it will also explore the interrelationship between materials, techniques and the artistic forms of expression. In addition to the choice of materials and skilled craftsmanship, combined with artistic working methods, attention is also focused on artistic exchange. The education and early places of residence of the Kronach-born artist remain unclear. Interest thus concentrates on the question: Where did he find stimuli for his choice of materials and techniques, and in what way were these modified by the workshop processes? Also: How did the techniques used by the artist – who was celebrated during his lifetime for his speed – vary from those of his contemporaries? It is known that his Wittenberg workshop was marked by an enormous efficiency, but to what extent does Cranach’s speed result from the application of new techniques? This investigation of his materials and design elements aims to provide answers to further questions, for example: Did Cranach rely on a consistent set of techniques which remained essentially unchanged during his lifetime, or did he alter his painting process over

the years? Did he create new forms of expression by experimenting with variations in individual techniques? To what extent does his choice of materials and techniques vary according to the commission? And if so, does this mean that stylistic analyses to date should be evaluated anew?

Particular attention is given to the collaboration between different craftsmen and the cooperative production of series of paintings. Wooden panels as supports for the ground and paint layers were produced by carpenters and also the preparation was usually carried out by a professional *zubereiter*. Analysis of the working principles and organisational structures not only provides a more precise picture of effective workshop production, it also describes the influence exerted by non-artistic factors on the outcome of the paintings. The continuing debate about the master's individual role and contribution within the workshop organisation is inevitably touched upon in this research, but it is not its central subject. Since the workshop principle is based on the adoption of the master's painting methods by his pupils, it is rare that a technical analysis is able to distinguish different hands. Only in individual cases can the attempt be made to obtain conclusions regarding a division of labour in the actual painting process by examining the patterns of procedure.

The essential aim of this work is to evaluate the results of the technical examinations and to compare them with the numerous written documents. Relevant texts reproduced in appendix II have been transcribed more accurately or for the first time. The results not only give insights into techniques and workshop practices, they also make it possible to comment on authenticity, dating, display and function. Furthermore, in determining the materials and the manner of their use, we can improve our understanding of the original appearance and, in addition, the present-day condition of the paintings. Therefore, this work not only supplies valuable indicators to either support or revise research on style and source materials, it is also primarily intended as a contribution towards the history of Renaissance painting in Germany with regard to materials and technique.

Central to these investigations are the paintings on wooden panels by Lucas Cranach the Elder and his workshop. Painting on textiles and other supports, which have been largely neglected by research, are also analysed, using archival documents and the few remaining works. With this examination, attention is drawn to questions of workshop organisation and co-operation, as well as artistic exchange. Due to the existence of more than one thousand panel paintings, this investigation is limited to a selection of works dating mainly from the years before 1525. The technical criteria could only be developed

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Albrecht Dürer, **Portrait of Lucas Cranach the Elder**, 1524. Drawing on paper, 16.2 × 11 cm. Bayonne, Musée Bonnat.

by close assessment of the actual paintings in museums, collections and churches. Included are technical characteristics of approximately 300 paintings. For about half of these, various instrumental methods of analysis (see Appendix 1) were used to determine materials and layer structure. Depending upon the purpose, the degree of analytical precision varies. The primary concern was that the investigations should not endanger the paintings themselves, and that non-destructive methods should be used. In a few cases, the minutest amount of material was taken for analysis. Over time, it was possible to shape the vast number of details into an overall picture, rather like a mosaic of which only a few tesserae have survived. One of the most severe limitations for this project was the need to avoid the repetition of investigations for reasons of conservation and economy. Thus the validity of the resulting statements is influenced, to some degree, by external circumstances and chance. Nevertheless, the material gathered provides a representative and comprehensive overview.

Every effort has been made to present the individual stages of the production process in sequence, while at the same time taking into account the chronological order of the existing works. Here it was important to describe the rich spectrum of materials and techniques without neglecting to point out characteristic features. Where an attempt is made to show developments, this refers to known – and thus – limited details. An exhaustive presentation is not possible here; however, it is hoped that this work will encourage readers from different disciplines such as art history, restoration and conservation sciences to embark on further studies, investigating the written source materials and the preserved paintings to further enlarge and improve our knowledge of the artistic practices of Lucas Cranach the Elder.



Biography of Lucas Cranach the Elder

c.1472	Born at Kronach in Franconia, the son of a painter
c.1502-03	Worked in Vienna
1505	Appointed to Wittenberg as court painter by the Elector of Saxony, Friedrich III the Wise (died 1525)
1508	Awarded the Heraldic Letter in Nuremberg (the symbol of which is a serpent with wings)
1508	Stayed at the court of Margarete of Austria, Governor of the Low Countries, in Mechelen
1512	Acquired two adjacent houses on Wittenberger Markt (today Nos 3/4)
c.1512/13	Married Barbara Brengelier (died 1541) and the birth of son Hans (died 1537)
1515	Birth of son Lucas the Younger (died 1586)
c.1515-1520	Birth of daughters Ursula (date of death not available), Barbara (died 1601) and Anna (died 1577)
1518	Acquired the 'Cranachhof', at No. 1 Schloßstraße
1519-1544/45	Served as Councillor in Wittenberg (intermittent)
1520	Awarded the Electoral Privilege of Apothecary
1523	Received King Christian II of Denmark as a guest in his home
1523-1525/26	Operated a book printing shop with Christian Döring
1524	Accompanied the Elector Friedrich III the Wise to the Reichstag at Nuremberg
1525	Was witness at the wedding ceremony between Martin Luther and Katharina von Bora
1525	Worked for the new Elector of Saxony Johann the Steadfast (died 1532)
1532	Worked for the new Elector of Saxony Johann Friedrich I the Magnanimous
1537/38 -1543/44	Served as Mayor of Wittenberg (intermittent)
1547-1550	Temporarily lost his position as court painter
1550-1552	Stayed in Augsburg and Innsbruck as court painter with the imprisoned Johann Friedrich I
1552-1553	Worked in Weimar
1553	Lucas Cranach the Elder died on 16 October in Weimar

I

Cranach's practice of painting in the judgement of history

Compared to the extensive writings from Albrecht Dürer's estate, few auto-graphed documents from Lucas Cranach the Elder remain. Individual letters, invoices, reminders, and roughly two dozen receipts provide some insight into the artistic practices of the Wittenberg court painter (fig. 3). The documents are complemented by a considerable number of payment orders contained in the account books of the Saxon Electorate Court, which were drawn up by different persons and are mostly based on Cranach's written instructions ('*inhalts seiner zeteln*', '*laut Lucas Malers aigen hantschrift*'; app. II, 180, 245).¹ Although it is feasible that respective clerks misinterpreted instructions, closer investigation of the artistic practices in the Cranach workshop points to their special significance. The account books and associated documents provide information about materials used, their quality, sources and prices. There is repeated documentation referring to various tasks and the conditions of commission, as well as on the execution of and invoicing for orders. In addition to this, payment slips give information about skilled crafts and artistic techniques, organisational structures and the division of labour within the workshop. For this reason, this body of documents will be evaluated in the following chapters, together with other sources such as written orders or contracts, which will then be compared with the results of technical investigations.

During his lifetime and in the following centuries, the painting technique and workshop practices of Lucas Cranach the Elder have received varying degrees of attention and assessments. In the following section, the intention is to examine the record of his artistic activities provided by patrons or contemporary commentators. Due to the limited written material it is difficult to know to what extent general conclusions may be drawn from such surviving documentation. In the literature on art in the seventeenth and early eighteenth centuries, Cranach occupied only a marginal position.² During the periods that followed, attempts were made – guided by very different motives and achieved by various means – to gain an understanding of the court painter's artistic practice. Towards the end of the nineteenth century the assessment of materials, techniques and workshop organisation was still based on written

4 (pages 20-21)

Lucas Cranach the Elder and workshop, **Princes' Altarpiece**, c.1510. Central panel, 106 × 92.6 cm, shutters each 106 × 42 cm. Dessau, Anhaltische Galerie.





sources and connoisseurship, whereas in the twentieth century we observe a shift towards the use of available analytical methods. This development, and the way in which the results of technical examination complement art historical research, will be discussed later and will lead to the starting point of my own investigations.³

Sixteenth-century commentators

The earliest reflections on Cranach's artistic practice are preserved in a letter of dedication by Christoph Scheurl, printed in 1509.⁴ Scheurl, a professor at Wittenberg University, praises in great detail the court painter's study of nature and his realistic style of painting by using various *topoi* from antiquity.⁵ A brief glimpse into the studio underlines his unquenchable need for bustle: 'wherever one turns, in every nook and cranny there is a picture'.⁶ Scheurl eulogizes Cranach's ability to paint with speed and in this respect considers him to be ahead of all his contemporaries. While the scholar points out that excessive care in the execution of a painting only does harm, the Elector Friedrich III the Wise emphasises in letters to Duke Georg of Saxony that he has commanded his court painter to 'proceed with all diligence' (*beffolhen flies zcu hoben*, app. II, 73). In this, the patron requests care above all else, because here 'diligence' is synonymous with excellent quality.⁷ When sending the contract design and later the finished painting of the Virgin, Friedrich politely expresses his doubts as to whether Cranach's work will please the Duke. The patrons were well aware that they could not expect works exclusively painted by the master himself; in a letter dated April 1521 Duke Johann the Steadfast asks the Elector Friedrich III the Wise to send him a panel by his painter (name unknown), at the time apprenticed to Cranach, which had been sent to Worms by mistake.

Johann Strigel's poem of lament for the son Hans Cranach, who died in 1537, records the voluminous portrait production and so illuminates the extensive workshop activities.⁸ Philipp Melancthon sketched ideas for paintings for Cranach and compared to Dürer and Grünewald he considered Cranach's pictures to be 'pure in their simplicity' (*schlicht*)⁹. In a letter dated 1545 to Nikolaus von Amsdorf, Martin Luther remarks half ironically and half derogatorily: 'that master Lucas is a rough painter'¹⁰ and judging by the inscription on the headstone of Cranach's grave '*pictor cellerimus*',¹¹ praise for speedy painting already appears to have been an ambiguous compliment seen from a present day perspective.

Three years after Cranach's death, Johann Neudorffer from Nuremberg addressed for the first time the matter of the painter's choice of materials: 'Master Lucas, painter to the court at Wittenberg, had among others the praise of having painted the best velvet because he could paint black even blacker and even onto the very blackest he could paint...'12. Following this we are given a recipe for ivory black. A year later, Mathias Gunderam used an anecdote about the meeting between Emperor Charles V and Lucas Cranach to address the difficulty in separating the hand of the father from that of the son.¹³ Perhaps Gunderam wanted to flatter Cranach the Younger when he described how the emperor asked who had painted the panel, because some people thought it was the work of the father and others that of the son.

From the graveside speech for Lucas Cranach the Younger by Georg Mylius in 1586 we are given an insight into the workshop practices when he speaks about 'reproducing, tracing, painting copies, modelling versions, illuminating and using patterns', i.e., the transfer of designs with the aid of technical means.¹⁴ Once again the interest in painting technique concentrated on speed. This ability, celebrated as a positive quality during Cranach's lifetime, understandably slipped from critical attention for a time thereafter and was only taken up when these early documents were rediscovered.

Seventeenth- to nineteenth-century commentators and biographers

At the turn of the seventeenth century, the works of Lucas Cranach the Elder were not completely forgotten but, compared to those of Dürer, there was much less interest in his painting. While Dürer's panel paintings were frequently copied between 1600 and 1630,¹⁵ there is no indication that there was a similar interest in reproducing Cranach's work.¹⁶

Karel van Mander mentions hardly more than his name in his *Schilder-Boeck* of 1617.¹⁷ Joachim von Sandrart considers the paintings by Cranach to be 'nice and tidy'.¹⁸ It is not until 1726, in the first monographic study by Johann Friedrich Christ, that the technique and working methods of Lucas Cranach the Elder are considered: 'Apart from the acquired bad use of local colours he has a rather thorough and strong way with his shading which is completely unknown in Gothic works, almost invented'.¹⁹ Christ praises the quality of the painting materials and the layer structure: 'Else it cannot be concealed that he knew how to prepare his colours to an unusual durability so that on most



5
 Lucas Cranach the Elder,
Judgement of Paris,
 c.1527/30. Drawing on paper,
 20.1 × 14.4 cm. Brunswick,
 Herzog Anton Ulrich-Museum,
 Kunstmuseum des Landes
 Niedersachsen.

of his paintings everything appears extremely fresh.²⁰ For many years to come, Christ's remarks formed the basis for all subsequent investigations and critical evaluation.

During the second half of the eighteenth century, general interest in the German old masters developed in parallel with interest in their technique.²¹ The exceptionally good condition of Cranach's paintings attracted growing attention. The art lover and collector Carl Eberhard Reimer considered the luminosity and durability of Cranach's work far superior to that of contemporary French paintings.²² Reimer's emphasis on Cranach's use of white grounds easily preceded the 'rediscovery' of white preparatory layers by the Nazarenes and Pre-Raphaelites. Cranach's works supplied the model for contemporary technique, the quality of which is not primarily its artistic effect, but its durability: 'The pure application of successfully mixed colours, the origin of dura-

6

Lucas Cranach the Elder,
Martin Luther as Monk,
 1520. Copper plate engraving,
 14.1 × 9.7 cm. Wittenberg,
 Stiftung Luthergedenkstätten
 in Sachsen-Anhalt, Lutherhalle.

tion which defies all time, has everything a reasonable imitation can ask for.²³ With his publication of Theophilus Presbyter's *Schedula diversarum Artium* in 1774, Gotthold Ephraim Lessing shook the authority of the myth that the Van Eycks invented oil painting.²⁴ This was followed by an intensive examination of old paintings with the aim to identify the binding medium.²⁵ Due to the rediscovery of Pompeii from 1748 onwards, an interest in wax as a durable binding medium developed and was accompanied by research and experimentation with the encaustic technique in an effort to replicate the effects of the Roman painters. In 1780 the conjecture was even voiced, with reference to an inscription, that a painting of Luther by Cranach was painted with wax.²⁶ This supposition soon became widespread in literature on painting technique.²⁷ But this is based on the misinterpretation of a distich, which is also preserved below two copperplate engravings of Luther's image: 'AETHERNA IPSE SVAE MENTIS SIMVLACHRA LVTHERS // EXPRIMIT AT VVLTVS CERA LVCAE OCCIDVOS' (fig. 6).²⁸

In 1762, Christian Ludwig von Hagedorn noted that the prolific production of portraits was the reason for the drop in quality of works from Cranach's shop. Shortly before 1800, the debate about distinguishing paintings by the master from workshop productions began,²⁹ gradually gaining ground during the nineteenth century alongside the principal critical interest in Cranach's works.³⁰ On the occasion of the restoration of the altarpiece in the Stadtkirche Weimar, the painter and writer Heinrich Meyer drew attention to the change in the condition of a Cranach painting.³¹

Early treatises on the restoration of paintings reflect contemporary restoration practices, but they contain little information about painting technique. However, with regard to the dangers of surface cleaning, the apothecary of Halberstadt, Friedrich Lucanus, described the flesh painting of Cranach, Dürer and Holbein³² as executed in thin layers of paint and glazes. Evidently his warnings were ignored because these delicate glaze layers are frequently damaged or missing, presumably as the result of overzealous restoration treatments.

Johann Wolfgang Goethe, with the publication of a contribution to the *Leipziger Bilderfund* of 1815 that was presumably written by Johann Gottlieb Quandt, helped to achieve a high degree of publicity for several of Cranach's paintings.³³ Here, for the first time, an attempt is made to distinguish between the hand of Cranach the Elder and the Younger by looking in particular at the painting technique rather than solely at style: 'In this there appears to be modelling with paint underneath the glaze, whereas the older pictures

are more like drawings glazed with oil. And thus it would not be improbable that these latter paintings could be attributed to Cranach the son, the former to Cranach the father'.³⁴

For very different reasons, copyists of the early nineteenth century, among them Franz Wolfgang Rohrich,³⁵ showed a particular interest in Cranach's painting technique. Some copies are close to the originals in terms of technique but seem rather remote in terms of style. Around 1825, the sculptor Johann Gottfried Schadow made tracings of heads in paintings by Cranach. He noticed their consistency and concluded that Cranach was using a mechanical means of transfer. Schadow held that a picture in good condition was not only the result of the painting technique: '...in no small measure did the fortunate choice of well-dried panels made of lime wood contribute to this and he [Cranach] knew well how to prime these, so that to this day they have escaped woodworm and the hand of the restorer'.³⁶

The editing of source materials began with a few of Cranach's letters in the first half of the nineteenth century.³⁷ In 1851, Christian Schuchardt published the first two volumes of his research. The extensive source material reflects the broad spectrum of commissions for the Wittenberg court painter, as well as the large number of assistants. Schuchardt revealed the same uncertainty as his predecessors in assessing whether a painting was by Cranach's own hand.³⁸ He considered using painting technique to support his thoughts on distinguishing between the different artists, but because of some fundamental misconceptions he was bound to arrive at the wrong conclusions: 'Cranach never painted onto a gold ground, in fact he never used gold on his pictures, with him rings, chains and similar metal jewellery is always expressed in colour. In contrast, the younger Cranach almost always used gold for such things.'³⁹ From the difference in condition Schuchardt also concluded incorrectly: 'Externally all the paintings mentioned by me also coincide in that the paint surface shows completely different cracks; namely, this has contracted more into small scars, whereas the paintings by the father always show sharp, straight cracks.'⁴⁰ For the first time, the inferior quality of some of the Cranach paintings was attributed to the bad state of preservation. Schuchardt quite rightly noted with regret that many of the glazes have been lost during the unnecessary removal of varnish (*unsinniges Putzen*).

In the second half of the nineteenth century, the discussion about authenticity, workshop production, and the possibilities and limitations of distinguishing between the painters involved continued to dominate Cranach scholar-

7
Detail from **Holy Family (Rest on the Flight into Egypt)**, 1504 (fig. 176).



8 >
Detail from **Altarpiece with the Martyrdom of St Catherine**, 1506 (fig. 77).



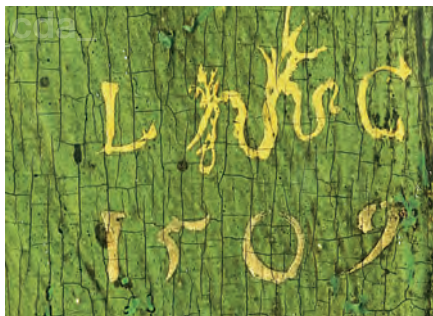
9
Detail from **Johann Friedrich I the Magnanimous**, 1509 (fig. 164).



10 >
Detail from **Altarpiece of the Holy Kinship**, 1509 (fig. 115).



11
Detail from **Christoph Scheurl**, 1509 (fig. 38).



12 >
Detail from **Venus and Cupid**, 1509. St. Petersburg, State Hermitage Museum.



ship. By criticising Schuchardt, it was hoped that special studies would be undertaken that would help to distinguish the master's hand from the *Collectivbegriff* Cranach.⁴¹ Starting with the woodcuts, the dispute soon escalated into the 'great battle over his own hand or not his own hand'.⁴² In 1871, Schuchardt questioned some of his earlier remarks about the master's proportionate share and about techniques and working methods. With his publication of invoices from the Torgau castle, extensive sources were made available regarding pigments, metal leaf, binding media, working implements, painting supports and other items, all of which to this day have scarcely been considered.

Oskar Eisenmann concluded in 1877 – and thereby determined the direction research on Cranach would take during the twentieth century – that the master could not possibly have produced all the works himself and that, instead, copies were prepared from his originals by pupils and workshop assistants like a factory production line with an efficient division of labour.⁴³ Martin B. Lindau added that assistants might have had an influence on the style and technique of the master as well.⁴⁴ The small winged serpent is now generally seen as the studio mark.

The technical examination of works of art began in the late eighteenth century.⁴⁵ Emphasis was repeatedly placed on the necessity for scientific research into painting materials and technique.⁴⁶ However, it was not until the close of the nineteenth century that instrumental methods of investigation had their true commencement.⁴⁷ Initially the German research⁴⁸ was meant primarily to enable contemporary artists to improve the durability of their own painting technique so that it would not be inferior to that of the early German paintings.

Shortly before 1900, art-historical research increasingly began to focus on the condition of the paintings. In his essay on the Cranach exhibition of 1899 in Dresden, Max Friedländer discussed the changed appearance of nearly every work.⁴⁹ Here praise for the durability of the paintings is set against the description of damage caused by ill-informed restoration. Since Friedländer, the relationship between the judgement of Cranach's artistic qualities and the state of preservation of his works has barely been raised as a topic in its own right.

Twentieth-century research and analysis

The Cranach exhibition in Dresden in 1899 was followed by a veritable flood of publications.⁵⁰ Karl Woermann summarized that the task of separating the hand or hands of certain sons, pupils or assistants had become an insoluble one for posterity. Obviously, as far as he was concerned, one picture was painted by several hands: 'We shall still have to content ourselves with declaring only the best works as having been carried out by his own hand or essentially by his own hand and to openly describe the uncertain and with today's means unknowable as such.'⁵¹ Apart from a few portraits, Eduard Flechsig no longer recognised works by Lucas Cranach the Elder from the years after 1520.⁵² Having studied the various serpent signatures, he concluded that all panels marked in that way stem from the master or his two sons, and attributed a

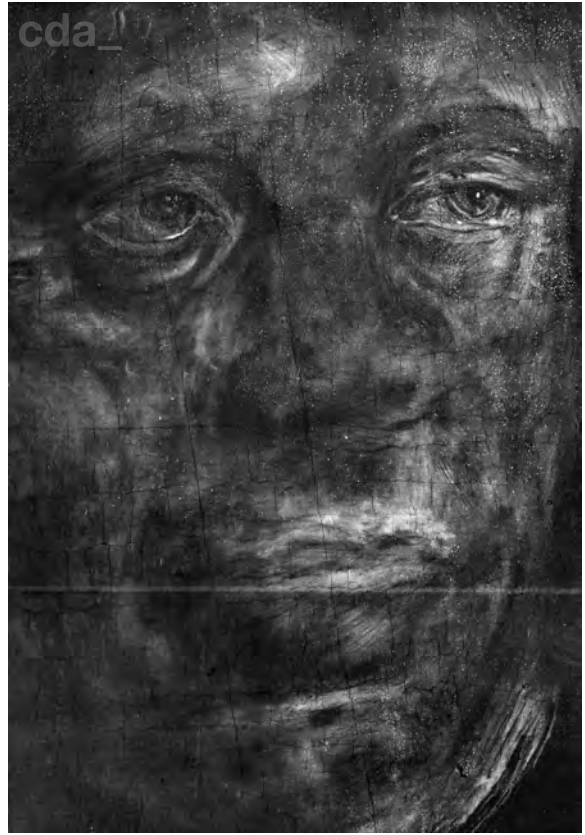
correspondingly large number to Hans Cranach. However, investigation of the archival material confirmed that in his later years, Cranach the Elder had shown prolific artistic productivity.⁵³ Not even Friedländer's sharp words could put an end to the controversy: 'It is of little importance to know whether the master produced this or that painting entirely or partly with his own hand, or whether one of his workshop assistants had participated in it. The essential thing is the spirit which prevailed in the workshop and the kind of establishment it was.'⁵⁴ Friedländer condemned paintings that had previously been much valued as 'works of the worst manner' (*Arbeiten der schlimmsten Manier*)⁵⁵ and started to sing the praise of the early Cranach. Consequently, more consideration was given to the working sequence and the division of labour. The observation that 'variations' on a theme, rather than copies, were common to this workshop⁵⁶ led to the assumption that Cranach used his memory rather than preparatory cartoons.⁵⁷ With justification, the influence of the patron on the workshop participation was queried,⁵⁸ and audacious distinctions were made within individual works between the proportionate contributions by the master, his sons and assistants.⁵⁹ Comments on methods of painting were rather rare in art-historical publications during the first decades of the twentieth century, as were speculations about the structure of the paint layers.⁶⁰ At first, technical investigation concentrated on the wooden support. In his publication on panel paintings by Lucas Cranach the Elder, Flechsig gives details on the kinds of wood used.⁶¹ He notes that during the early years (c.1500-1520), lime and coniferous wood prevailed, and in the 1520s it was beech. Thus it was concluded that paintings on oak were made during Cranach's journey to the Netherlands.⁶² Subsequently, some of the identifications of wood species have proved to be wrong.⁶³ Nevertheless, identification of the wood may still be regarded as the earliest example of a systematic application of methodology of the natural sciences employed in art-historical research of Lucas Cranach's painting production.

In keeping with the remark by Friedländer that, strictly speaking, we know nothing about the technique of the old masters,⁶⁴ Raehlmann in 1910 demanded more extensive microscopic and chemical investigations.⁶⁵ Alongside the scientific examination of the originals and the evaluation of written sources, there was also a practical approach: making copies of the original by attempting to use historical methods and materials, and then drawing conclusions from the results. The materials and techniques that produced copies closest to the originals were assumed to be the ones with which the original paintings were created.⁶⁶ In fact, many of Max Doerner's and Kurt Wehlte's attempts to reproduce the technique of early German painters are based on

speculation and the experience of the copyist. Both authors describe the technique of alternating oil glazes and tempera highlights on red, green or ochre-yellow primings as a likely method for efficient imitation.⁶⁷ Subsequently, these attempts formed a common view expressed in 1972 by Hans Joachim Gronau: 'By now the ochre *imprimatura* is for us an important criterion for Cranach's authorship and that of his workshop.'⁶⁸ This opinion continues to be considered as fact even as recently as the 1990s, although so far it has not been possible by microscopic cross-section examination to confirm this ochre *imprimatura* in any Cranach painting.⁶⁹

With the attempts to reconstruct the techniques used by the old masters, interest in the first half of the twentieth century focused increasingly on binding media. Compared with the traditional layer structure of medieval painting, Cranach's painting appeared to make use of shortcuts that almost achieve pure *alla prima* painting.⁷⁰ Lack of analytical data left much scope for supposition. There is much speculation concerning Cranach's painting media. These have been described variously as: tempera,⁷¹ resin tempera,⁷² oil tempera,⁷³ tempera with oil-resin glazes,⁷⁴ mixed media technique,⁷⁵ technique with alternating layers,⁷⁶ tempera base with oil glazes,⁷⁷ aqueous and oil-binding media,⁷⁸ underpainting with casein tempera,⁷⁹ varnished tempera,⁸⁰ oil and tempera,⁸¹ oil,⁸² and so on. During the 1980s, the characterisation of his binding media was limited to the application of histochemical staining methods,⁸³ while in the 1990s, the first results from analyses published in London supply us with more precise information about the type of binder and its preparation.⁸⁴

In 1895, Wilhelm C. Röntgen discovered that lead white absorbs X-rays and in 1913-14 Alexander Faber systematically studied the possibilities of using X-rays for the investigation of paintings.⁸⁵ While some initially overestimated the possibilities, Wilhelm Bode, then director of the Kaiser-Friedrich-Museum in Berlin, went to the opposite extreme. He completely rejected X-rays as a means of examination of potential use to art history and described this as 'rubbish' (*Mumpitz*) and 'only as good as the divining rod'.⁸⁶ However, in 1924, the Bayerische Staatsgemäldesammlungen in Munich acquired X-ray equipment to examine their paintings and, in 1926 and 1927 Alan Burroughs travelled to the largest European galleries on behalf of the Fogg Art Museum in order to produce X-radiographs.⁸⁷ Among the paintings examined in the late 1920s and 1930s were several works by Lucas Cranach.⁸⁸ Using Kurt Wehlte's material as a basis, Christian Wolters' publication in 1938 on the significance of the examination of paintings by X-rays for the history of art remains



13
 Lucas Cranach the Elder, detail
 from **Portrait of a Man with
 a Fur Hat**, c.1510. Staatliche
 Museen zu Berlin, Preußischer
 Kulturbesitz, Gemäldegalerie.

14 >
**Portrait of a Man with a Fur
 Hat**, c.1510 (fig. 13). Detail of
 X-radiograph.

to this day an authoritative work. Here we find important statements about Cranach's evolution from an impulsive to a more schematic application of paint.⁸⁹ Konrad Riemann began the most comprehensive archive collection of X-radiographs of Cranach's paintings in Halle/Saale in 1953.⁹⁰ In the 1930s, conservation laboratories or technical research departments were established in several European capitals.⁹¹ In preparation for the Berlin exhibition of 1937, the first extensive technical examination was carried out on a Cranach painting in Lisbon.⁹² Prior to the removal of varnish and overpainting from the *Salome* (c.1509/10), an X-radiograph was taken, the painting was viewed under ultraviolet light,⁹³ paint surface and pigments were examined under the microscope, and macro-scale photographic documentation was compiled.

A Cranach underdrawing was first identified by Otto Benesch in 1928 and he described it as a greyish-blue brush outlining of the figures visible with

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Lucas Cranach the Elder,
Four Partridges, c.1530. Paper,
 45 × 32.3 cm. Dresden,
 Staatliche Kunstsammlungen,
 Kupferstich-Kabinett.

the naked eye.⁹⁴ During the following decade, publications appeared on how to detect underdrawings by infrared methods of examination.⁹⁵ About 30 years later, infrared photographs produced by Riemann were included in the assessment of Lucas Cranach paintings. The first publications and the description of the essential characteristics of preliminary underdrawings followed.⁹⁶

During the post-war period, art-historical research paid increased attention to Cranach's working process and results from technical examination obtained in connection with conservation treatments began to be published.⁹⁷ The appearance of hitherto unknown documents clarified our understanding of the extended workshop practices.⁹⁸ Albert Giesecke presumed the reason for a deterioration in quality in Cranach's work to be that, from 1530 onwards, the father's activity declined and that the sons produced fewer preparatory sketches.⁹⁹ Werner Schade, by way of extending his earlier contribution on the topic of patterns for the painting of portraits and animals, repeatedly devoted himself to questions of the working process and the distribution of labour.¹⁰⁰ He pointed out that the transformation of the artist's work due to specific commissions has so far received too little consideration. Starting with the individual style of traditional works within and outside the workshop, he identified various pupils as well as painters from Cranach's circle. He also expanded on the role of the sons within the workshop.¹⁰¹

In 1972, the conservator Konrad Riemann described, based on the results of his own technical investigations, the sequence of work in the creation of the *Fourteen Helpers in Need* (c.1505/07).¹⁰² In the same year, Gronau opened up a host of questions by way of his dissertation on Lucas Cranach's painting techniques.¹⁰³ He assessed a greater number of infrared photographs and X-radiographs and carried out microscopic surface examinations. However, his interpretations remained problematic due to continued reliance on Doerner's theories.

Since the 1960s, results from technical investigations of Cranach's works have been increasingly taken into account in art-historical research.¹⁰⁴ Conservators have been encouraged to publish their observations on materials, techniques and the state of preservation of Cranach paintings.¹⁰⁵ Catalogues of collections and exhibitions now increasingly contain technical information (not always reliable).¹⁰⁶ At the same time, it became clear that it would go against the character of Cranach's work if research insisted on separating hands by means of stylistic analysis or instrumental methods.¹⁰⁷

16 (page 34)

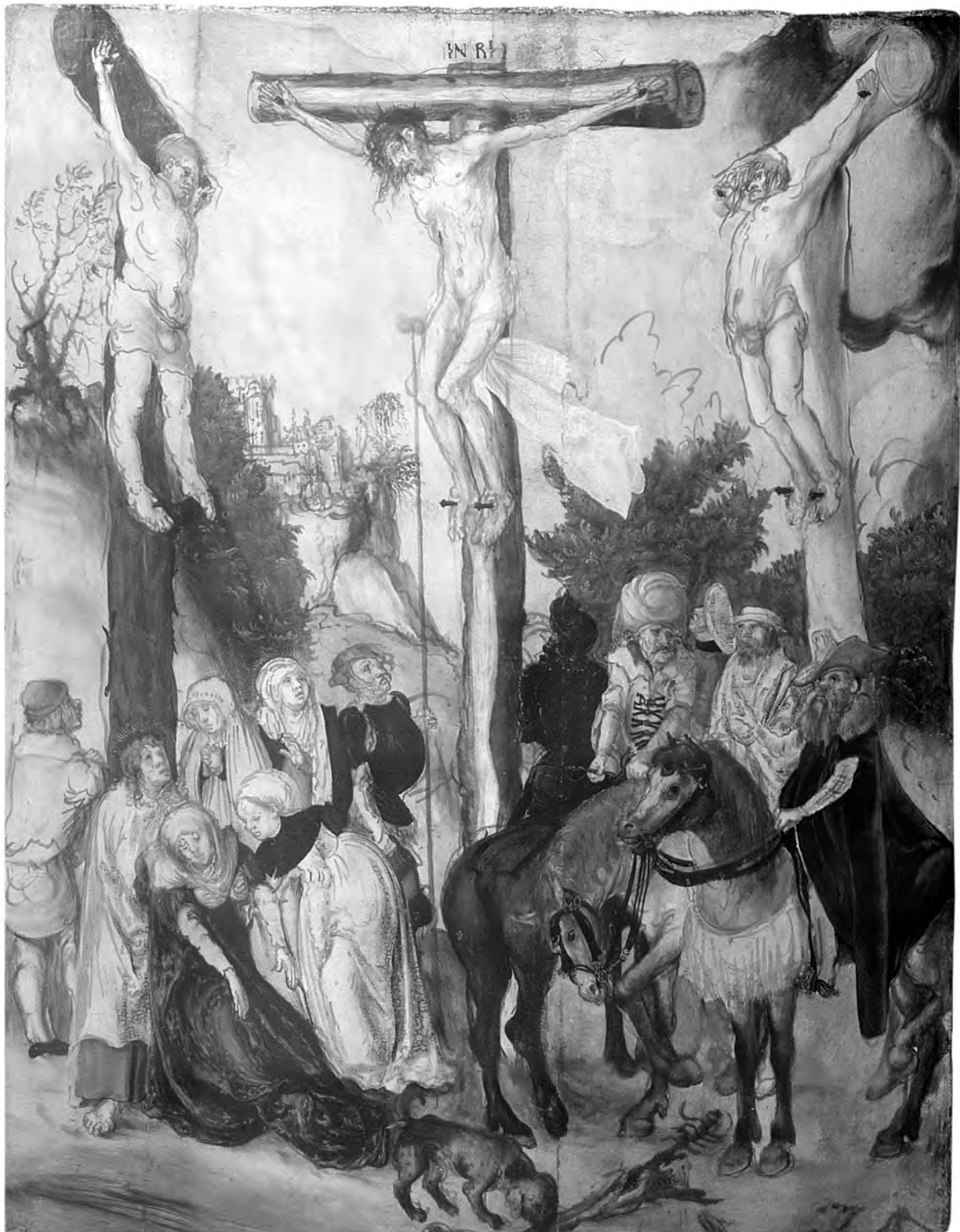
Lucas Cranach the Elder,
Crucifixion, c.1500. Panel,
 58.4 × 45.8 cm. Vienna,
 Kunsthistorisches Museum,
 Gemäldegalerie.

17 (page 35)

Crucifixion, c.1500 (fig. 16).
 Infra-red reflectogram.







While for Friedländer and Jakob Rosenberg¹⁰⁸ the question of true original or workshop copy, replica or variation still formed the basis for the selection of works, Tilman Falk and Dieter Koeplin defined the categories in a more flexible way, taking for granted the principle of workshop participation.¹⁰⁹ Giesecke¹¹⁰ asserted that only the master could place his signature on a painting produced in his studio, even if he had not added a single stroke himself; now even this hypothesis is questioned: 'Cranach's signature could be imitated just as well as Cranach's paintings themselves.'¹¹¹ During the Basel exhibition in 1974, the analysis of the species of wood used by the workshop was reconsidered for the first time since Flechsig in 1900.¹¹² Seven years later, Peter Klein completed his chronology of beechwood year rings and since then it has been possible to use dendrochronology to date many of the panels more accurately.¹¹³

By the 1990s, it became standard practice to include the results of technical examination in collection catalogues.¹¹⁴ The preparations for a Cranach exhibition in Kronach focused on the workshop practices.¹¹⁵ Once again, the question about the degree of work directly attributable to Cranach himself caused a clash of opinions. A traditional method, macrophotography¹¹⁶, already recognised in 1930 during the International Museums Conference as being a useful means of determining attribution, was applied by Claus Grimm. He adopted an extreme position by reducing the number of authentic works in which Cranach actually participated to a minimum: 'Only the few remaining early works, some drawings and preliminary studies, as well as individual exceptional works and parts of paintings from after 1505 are produced by him personally.'¹¹⁷ Around the same time, Johannes Erichsen and Andreas Tacke¹¹⁸ enriched our knowledge of workshop collaboration with their analysis of patterns, *modelli* and contract designs.

In 1994, Ingo Sandner and Iris Ritschel summarised the present state of research into working methods and painting techniques by Lucas Cranach and thus were able to formulate a research project on this subject.¹¹⁹ With the aid of infrared reflectography¹²⁰, developed in the 1960s by Johann R.J. van Asperen de Boer, Sandner expanded on questions and findings related to Cranach's preliminary drawings on the painting's support.¹²¹ The resulting high number of underdrawings supply vital information about the creation of the paintings. Thereafter, technical examinations increased in leaps and bounds.¹²² By the 1980s, very few pigments from Cranach paintings had been identified¹²³, but with the advances in instrumental methods of analysis (e.g. energy-dispersive X-ray analysis and proton-induced X-ray emission), identification of pigments became much more common.¹²⁴

The state of research

During the past 150 years, primary archival source material relating to the Cranachs has often been transcribed incorrectly or abridged¹²⁵ and there is a marked absence of comprehensively transcribed and edited texts.¹²⁶ No systematic evaluation of written documents on their painting materials, painting techniques and workshop practices, nor any attempt at comparison with the results of technical examination and instrumental analysis has been carried out. Although experts on Cranach are fairly well informed about the various wood species and their chronological use in the Cranach workshop,¹²⁷ few studies have been made of the canvas supports.

The subject at the centre of recent technical research continues to be the division of labour within the studio with regards to underdrawing and the actual painting process.¹²⁸ However, further research on the collaboration between the different crafts involved in the factory-like production of paintings would help to define the working principles and organisational structures of the Cranach workshop. Questions related to the artistic exchange between Cranach and his contemporaries have been discussed only on the basis of surface appearance and underdrawing. Further research is therefore required regarding overall production.

Some individual studies of the Cranach workshop's painting materials, metals and binding media have been published, but further consideration could be given to the various complex painting techniques, the interrelationship between stylistic and technical development, the adaptation of materials and working process to particular commissions, and development of the Wittenberg workshop. Each of these topics offer opportunities for further research, not least because the Wittenberg workshop was active for more than eight decades.

This establishes the starting point for the research presented here. What follows is an analysis of the creative process behind selected paintings with a detailed discussion of materials and workshop practices aiming to arrive at a deeper understanding of the painting of Lucas Cranach the Elder.

18

Lucas Cranach the Elder,
Design for an Altarpiece,
c.1520. Paper, 39.3 × 24.7 cm.
Staatliche Museen zu Berlin,
Preußischer Kulturbesitz,
Kupferstichkabinett (KdZ 387a).



II

Panel painting

The wooden support

On 20 January 1517, Hochmeister Albrecht of Prussia ordered a painting from Lucas Cranach, writing, 'It is our sincere desire that you paint and finish for us a Hercules, crushing a naked fellow to death, and that you can paint this onto a panel or board with these measurements of length and width' (app. II, 71). Here the painter was to design his composition according to the given format and was to instruct his carpenter to produce the panel according to given measurements. This example indicates that size and proportion of the painting support are often determined by the project requirements, subject, function and cost,¹ rather than emerging from the artistic process.

Frequently, only the longest dimension of the panel or altarpiece was laid down by the commissioner,² but it was the artistic design that dictated the shape and proportion of large formats. Contract designs and models of altarpieces of the Cranach workshop stipulate the relation between height and width (fig. 18).³ Some drawings were done to scale (1:10) and in the case of others, final dimensions had to be agreed upon.⁴ For the epitaph of Duke Georg of Anhalt (c.1553/55), carried out by Cranach the Younger, the measurements of height and width are given in cubits (*ellen*) on the drawing itself.⁵ Measurements and proportions of large panels and altarpieces obviously corresponded to the interior architecture into which they were fitted (fig. p. 2).⁶ One can assume that Lucas Cranach the Younger was continuing in the tradition of his father's workshop when he replied to an electoral commission of 8 November 1583, writing that he had been to Colditz and had 'measured the old panel, the room and everything'. In this case, the artist advised the elector against the round form in favour of a heart-shaped winged altar and laid out the measurements.⁷

19 (pages 40-41)

Lucas Cranach the Elder,

Johannes Cuspinian and His Wife Anna, c.1502/03. Panels, 60.3 × 45.4 cm and 60.2 × 45.2 cm. Winterthur, Sammlung Oskar Reinhart 'Am Römerholz'.

There is little variation in the proportions of the few surviving panels that Cranach the Elder painted before his appointment to the Wittenberg court. *St Jerome* (1502, fig. 81),⁸ *Johannes Cuspinian and His Wife Anna* (1502/03, fig. 19),⁹ the *Portraits of a Viennese Scholar and His Wife* (1503, figs 181, 26),¹⁰ as well as the *Holy Family (Rest on the Flight into Egypt)* (1504, fig. 176),¹¹ are





painted on panels of varying sizes but each has a nearly identical ratio of height to width (4:3). The artist arranged the design within the limits of the previously determined panel format. Since these works evidently reflect humanist thought,¹² the consistent ratio of height and width might be related to the Pythagorean numbers.¹³ The assumption that the proportions were defined by Cranach himself, rather than left to the carpenter, is strengthened by the observation that the panels were produced in different workshops. Diverging production techniques and the use of a different species of wood (see p. 52) lead to the conclusion that the order for the support of the *Holy Family* was not placed with the carpenter who had produced the Viennese portrait panels, but with another workshop.

In his Wittenberg studio, Lucas Cranach the Elder painted on a wide range of wooden panels of different sizes and formats. Orders and invoices vary between 'very small panel', 'small panel', 'board', 'panel' and 'large sheet'. Occasionally the size goes well beyond the limits of easel painting, for instance, small panels come close to miniature.¹⁴ In 1539, he invoiced for a painted tabletop and panels for monumental altarpieces that could exceed five-and-a-half square metres or a single work could have a 320-centimetre side length.¹⁵ The altarpiece in the Stadtkirche of Weimar, completed by Lucas Cranach the Younger in 1555, surpasses these dimensions: the surface of the central panel alone measures more than 11 square metres.¹⁶

During the years when Cranach the Elder was first at the court of Saxony, the high rectangular format was complemented by an oblong one. Occasionally the top is finished off with rounded or keel-shaped arches¹⁷ and the revival of interest in medallions promoted painting on round panels (fig. 58).¹⁸ Oval panels form an exception.¹⁹ The measurements show that the artist at first adopted Renaissance proportions with a more balanced relation of height and width, while later he seems to prefer the more Gothic proportion of the tall and narrow format.²⁰ This panel format is echoed in the elongated, sometimes even preposterous proportions of the figures, for example, *St Catherine* and *St Barbara* (c.1516).²¹ Cranach's interest was increasingly limited to this type of proportion so as to preserve his own canon, in a contrast to Holbein's more refined variability.

Standard-sized panels

By the third decade of the sixteenth century at the latest, the efficient workshop of Cranach made use of standard formats. Between 1520 and 1535,

more than 70 per cent of the preserved rectangular panels can be assigned to one of the format types presented in figure 20.²² In Saxony in the sixteenth century, no standardised system of measure existed.²³ It seems that the standard formats are not based on whole foot or cubit measurements and the dimensions of the individual groups are in no proportional relation to each other. Possible explanations for slight deviations from the mean could be that, in the case of beech wood panels that consist of one board only and where the edges of the board finish with the same year ring, the trunk was probably used to the full and only the bark was removed.²⁴ It would make sense that the carpenter tried not only to comply with the order for a particular format, but also to use the wood and his time most economically.

During his first years at the Wittenberg court, Lucas Cranach the Elder frequently ordered panels of varying size and format, indicating that he adjusted the dimensions according to the artistic design and/or individual client request. The later introduction of standard-sized panels imposed the discipline of harmonising the design within predetermined vertical and horizontal limits. As a result, compositions are not always well balanced. By working within these parameters and avoiding individual variations, Cranach was able to increase the efficiency of his workshop production. There was no need to deliver individual measurements for each commission to the carpenter,

20

Panel formats preferred
in the Cranach workshop
between c.1520 and c.1535.
The dimensions differ slightly
from the mean.

A = 18.5-22.5 × 14-16 cm,

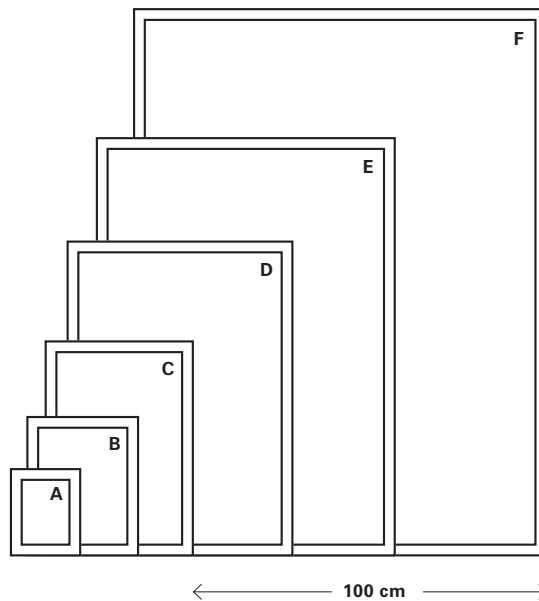
B = 33.5-39 × 23.5-30 cm,

C = 51-59 × 34-40 cm,

D = 82-90 × 55-63 cm,

E = 114-121 × 77-84 cm,

F = 149-158 × 112-119 cm.



which allowed panels to be produced in advance. Different themes are painted on each format and the same themes are depicted on panels of different format types. The commissioner had the choice within predetermined groups. This would contradict the notion that the format was primarily determined by artistic traditions and/or commissioner demands.²⁵

Closely associated to the use of standard formats for individual panels and winged altarpieces is the practice of using a modular system for design, as in the Saints and Passion Cycle in Halle/Saale, preserved in retable designs with movable shutters (fig. 18). The proportions and sizes of the individual elements of the models were maintained by ‘tracing’ the drawn frames.²⁶ Thus Cranach could exchange or even interchange the drawings and he could easily modify them to scale. The model for the Peter and Paul altar (fig. 18) and the *Lamentation* (c.1520/25), which formed the central panel of the painted altarpiece, exemplify this practice.²⁷ The relationship between the drawing and the panel is 1:10 and the latter is in standard-sized panel ‘F’ (cf. fig. 20). Thus both the painting support and the drawing proportions are determined in relation to one another according to an established system.

21

Lucas Cranach the Elder,
Self-portrait, 1531. Panel,
45.4 × 35.6 cm. Stolzenfels
Castle. Diagram showing a
reconstruction of the original
panel format.



THE WOODEN SUPPORT

Title ²⁸	Location	Friedländer, Rosenberg (1978) No.:	Date	Height in cm	Width in cm
<i>Cardinal Albrecht of Brandenburg as St Jerome</i>	Darmstadt, Hessisches Landesmuseum	185	1525	116.5	77.5
<i>Adam and Eve</i>	London, Courtauld Institute Galleries	191	1526	117.1	80.5
<i>Samson and Delilah</i>	Augsburg, Staatsgalerie	212	1529	117	82
<i>The Fall and Salvation of Man</i>	Gotha, Landesmuseum	221	1529	80	115
<i>The Stag Hunt of the Elector Friedrich III the Wise</i>	Vienna, Kunsthistorisches Museum	281	1529	80	114
<i>The Garden of Eden</i>	Dresden, Gemäldegalerie	202	1530	80	117
<i>Pharaoh's Hosts Engulfed in the Red Sea</i>	Munich, Alte Pinakothek	203	1530	82	117
<i>The Garden of Eden</i>	Vienna, Kunsthistorisches Museum	201	1530	81	114
<i>Abraham's Sacrifice</i>	Bamberg, Staatsgalerie	208	1530	82	117
<i>Old Man with Young Courtesans</i>	Sold in London (Sotheby's), 12 December 1933	291	c.1530	84	116
<i>The Feast of Herod</i>	Hartford, Connecticut	220	1531	80	117
<i>Christ and the Woman Caught in Adultery</i>	Budapest, Szépművészeti Muzéum	216	1532	82.5	121
<i>Hercules with Omphale</i>	Lost during Second World War	273	1532	79	116
<i>The Jaws of Truth</i>	Nuremberg, Germanisches Nationalmuseum	278	1534	75.5	118
<i>Virgin and Child</i>	Stuttgart, Staatsgalerie	227	1535	118	82.5
<i>Virgin and Child</i>	Detroit, Michigan, Detroit Institute of Arts	228	1536	120	84
<i>Hercules with Omphale</i>	Brunswick, Herzog Anton Ulrich-Museum	274	1537	82	119

Table 1: A selection of paintings in standard format 'E'

The decreasing number of made-to-measure paintings in the 1520s reflects a self-imposed restriction in favour of workshop efficiency and demonstrates Cranach's growing self-confidence as an entrepreneur. The extensive standardisation of formats not only allowed efficient production, but also, to an extent, supports the idea that certain themes were painted without specific commission and then sold. There were hardly any comparably efficient practices in sixteenth-century German panel painting elsewhere. However, in other countries and in later periods, standard-sized panels are more common, for instance, in the Netherlands.²⁹

22

Lucas Cranach the Elder and workshop, **Virgin and Child with Saints**, 1516. Panel, 119.3 × 96.7 cm. Dessau, Anhaltische Gemäldegalerie. Diagram showing a reconstruction of the original panel format.



Additions to an already existing support during painting were, however, not common in Cranach's workshop. Among the paintings investigated in this research, no evidence was found that the artist reworked a panel. The technical examination of the *Virgin and Child with Saints* (1516, fig. 22) confirmed that the extension along the left edge by 13.3 centimetres was carried out

subsequently.³⁰ Grate has argued that the upper part of the so-called *Payment* (1532, FR 290) was extended and repainted while still in the Wittenberg workshop, in view of the evidence of a faithful reproduction of a preserved study of a fowl.³¹ However, on most panels, enlargements³² and reductions³³ are recognisable without doubt as later alterations. Where panels have been reduced in size, knowledge of standard formats renders possible a reconstruction of the original sizes with greater certainty.³⁴ The *Self-portrait* of Lucas Cranach the Elder of 1531 (fig. 21) today measures 45.4 by 35.6 centimetres. The beech panel is obviously reduced in size along the lower edge, where the bevelling, preserved on the other edges, is missing. This, together with knowledge of the standard format 'C', makes it possible to estimate the original panel size of approximately 51-52 by 35.6 centimetres. Neither Koepplin's suspicion that the portrait was cut out of a larger panel³⁵ nor Rosenberg's assumption that this represents a copy from the seventeenth century³⁶ could be confirmed by the technical examination. All results, including a winged serpent and the date of 1531 detected by X-ray examination under layers of overpaint,³⁷ confirm Schade's earlier assumption³⁸ that this work represents an independent and authentic portrait of Lucas Cranach the Elder.

Species of wood

Before 1505, panels were made of lime, spruce and fir. The *Crucifixion* (c.1500, fig. 16), *St Jerome* (1502, fig. 81) and the *Holy Family* (1504, fig. 176) are painted on lime wood.³⁹ The support for the *Crucifixion* of 1503 (fig. 27) is fir (*Abies* sp.), the double portraits of Johannes Cuspinian and his wife (1502/03, fig. 19) and a Viennese scholar and his wife (1503, figs 181, 26), as well as the shutters of an altarpiece showing the saints Valentine and Francis (1502/03, figs 32, 33)⁴⁰ are painted on spruce (*Picea* sp.). Judging by the results obtained, Cranach used spruce only during his stay in Austria.⁴¹

During the first years in Wittenberg he painted on lime wood (*Tilia* sp.) which was supplied to him by the court. By contrast, one of the first major commissions from outside the court, the altarpiece in Neustadt/Orla (1511-13, fig. 215), was made from coniferous and deciduous woods. It might be that in this case the commissioner directly supplied boards from fir trees, up to a length of five *ellen*, used for the shrine and panels. Thereafter, it seems evident that coniferous wood was preferred for altar shrines⁴² and occasionally it was also used for large panels.⁴³ During the second decade of the sixteenth century, Cranach uses silver fir (*Abies alba*), amongst others, for the *Adoration of the Magi* (c.1513/16), the *Ten Commandments* (1516, fig. 64), the *Saviour* (c.1515/16, fig. 120) and two large crucifixion panels.⁴⁴ Possibly the long boards that could

be obtained from fir trunks were cheaper or more easily available. Cranach simultaneously uses very large lime wood planks⁴⁵ and in later decades, carpenters made even the largest altarpieces from lime.⁴⁶

Oak panels are exceptional in the oeuvre of Lucas Cranach the Elder. The number of works quoted by Koepplin and Falk in 1974⁴⁷ and by Friedländer and Rosenberg in 1978⁴⁸ as being oak panels has been readjusted in recent years due to precise identification of the wood species. It was repeatedly assumed that because the *Portraits of a Woman and a Man with a Rosary* (FR 27, 56, figs 23, 24), the *Portrait of a Man with a Spotted Fur Collar* (FR 58) and also two altarpiece shutters showing saints and donors (FR 28) were painted on oak that they were necessarily executed on location in the Netherlands in 1508.⁴⁹ Close examination has shown, however, that the altarpiece wings were painted on lime wood, and that the panel has been thinned to approximately 1 millimetre and subsequently mounted onto a new support.⁵⁰ The *Portrait of a Man with a Spotted Fur Collar* may have been painted before 1508 since the earliest felling date of 1499 was established by dendrochronological examination.⁵¹ Today it is impossible to reconstruct with any certainty whether or not it was a member of Cranach's workshop who mounted the *Christ and the Virgin* – painted in 1516/20 on parchment (fig. 207) – onto an oak panel.⁵² We know that from the late 1520s and early 1530s, the portrait of Mr. Köckritz (FR 324)⁵³ and *The Close of the Silver Age* (FR 263)⁵⁴ were painted onto oak (*Quercus* sp.). However, after considering all the technical results, the *Crucifixion* on oak, dated 1532, was obviously not produced in the Cranach workshop (see p. 154).⁵⁵ Concerning the portrait of Emperor Charles V,⁵⁶ only contradictory results are available: Cadourin and Veillon attribute the oak to a later restoration,⁵⁷ but Klein established an earliest felling date of 1546 for this wood; this largely supports the estimated date of about 1550, which is based on style.⁵⁸ According to the results of a dendrochronological examination, a further six panels examined by Klein are to be dated after the death of Lucas Cranach the Elder; in some cases there has been proof that they were later copies or even forgeries.⁵⁹

Cranach is unusual in preferring beech (*Fagus sylvatica* L.)⁶⁰ as a support for his paintings. From 1520/22 until the mid-1530s and beyond, this species of wood was used frequently.⁶¹ While the use of lime, oak and fir was widespread in European panel painting, artists only rarely worked on beech; exceptions are Master Theoderich in the fourteenth century and later Martin Schongauer, Hans Holbein the Elder, Hans Holbein the Younger, the Master of Messkirch⁶² and the Fendt family in Silesia.⁶³ The painter Georg Flegel



23

Lucas Cranach the Elder,

**Portrait of a Man
with a Rosary,**

c.1508. Panel, 47.6 × 35.2 cm.

New York, The Metropolitan
Museum of Art.

24 >

Lucas Cranach the Elder,

Portrait of a Woman,

c.1508. Panel, 42.6 × 33.7 cm.

Basel, Kunstmuseum.

(1566-1638) used it to a slightly greater extent.⁶⁴ However, the frequent use of beech wood in the Cranach workshop appears to be unique for the sixteenth century, not only in Germany, but in the whole of Europe.⁶⁵ So far there is no explanation for this.

Beech wood was used mainly for small-format paintings. Examination indicates that the introduction of this species is associated with the adoption of standard sizes. Accordingly, with the decreased use of beech after 1535, standardised formats in panel painting dropped to less than 30 per cent of all panels painted. Klein was able to confirm with dendrochronological analyses that the boards of certain beech panels stemmed from one and the same tree.⁶⁶ It is possible to assume that Cranach bought sawn or cleaved beech wood trunks (see p. 277). Boards from one and the same tree were used over a period of several years. According to Klein's results, the storage time was between one and seven years.⁶⁷ In contrast to some other species of wood, it is not necessary to remove the sapwood from beech. On many of Cranach's panels, the edge of the board finishes with the same annual ring on both sides,

so it would seem that beech was actually used in its full width with only the bark removed.⁶⁸ On some of the boards the bark is even still attached.⁶⁹ Overall, the wood is of very good quality and earlier suppositions that beech is not suitable for panel painting have not been confirmed. Today many of the beech panels are in better condition than comparable works on lime.

One of the earliest works, presumably painted towards the end of the year 1521 onto beech, is a *Portrait of Martin Luther as Junker Jörg* (FR 149).⁷⁰ The panel consists of a single particularly wide board (37.3 cm), the reverse of which shows carved blossoms, as well as foliage and chains.⁷¹ Could it be that in this case the wood was tested for other uses, such as carving? After 1522, a number of dated paintings on beech have been preserved⁷² and Klein was able to give a precise date for many of these boards.⁷³ One painting on beech, *Christ Blessing the Children*, is marked with the date of 1543 and signed with the initials AS.⁷⁴ Therefore it would be worthwhile to investigate whether the use of beech was limited to the studios in the Wittenberg Schloßstraße or whether former assistants also used this species of wood outside the Cranach workshop.

Identification of other species of wood, such as pine (*Pinus* sp.), poplar (*Populus* sp.), elm (*Ulmus* sp.) and maple (*Acer* sp.), has only been provided in individual cases.⁷⁵ Within this investigation it was not possible to establish with certainty whether the paintings for which the wood has been identified are by Cranach or not. Pine appears to have been used frequently for later copies or fakes.⁷⁶ It cannot, however, be ruled out that in individual cases other species of wood or even older panels were used in the Cranach workshop. A document dated August 1517 provides an indication: Johann Osswalt, Schultheiss from Eisenach, sent the Wittenberg painter samples of birch, maple and ash for the building of the castle at Weimar, along with a tabletop board which he had rescued from wood to be burnt at Gerstungen Castle (app. II, 75). The facts at hand reveal, however, that the species of wood that Cranach used varied little. The choice of a certain wood species was possibly of less importance to the painter than other considerations. There seems to be no obvious preference. The marvellous portrait of Christian II of Denmark (FR 150), for example, is painted on lime, while another version exists on beech (FR 150A). Also, the two remaining likenesses of Count Palatine Philipp of the Rhine are on lime (FR 141, fig. 46) and beech (FR 320), respectively. The *Portrait of a Man, Perhaps a Mayor of Weißenfels* (FR 63, fig. 206) suggests that Cranach's interest in painting sometimes overcame his concern for the support. This portrait was painted directly on top of a drawing of the *Translation of St Mary Magdalene* on parchment (see p. 258).



25
**Portrait of a Wife of
 a Viennese Scholar,**
 1503 (fig. 26). Reverse of the
 panel.

26 >
 Lucas Cranach the Elder,
**Portrait of a Wife of
 a Viennese Scholar,**
 1503. Panel, 52.6 × 36.4 cm.
 Staatliche Museen zu Berlin,
 Preußischer Kulturbesitz,
 Gemäldegalerie.

Wooden supports of the itinerant years (1500-1504)

Although more attention has been given in recent years to the identification of wood species and dendrochronological analysis⁷⁷, the technical aspects of panel production remain largely unconsidered. Examination of the various techniques with which the boards were joined provides surprising insights into the working process and can be of help in dating. At present, though, only a few catalogues contain reliable technical results.⁷⁸ In order to draw valid conclusions, extensive investigation of individual objects will be required. This will be difficult because traces of the techniques of panel-making along the edges and on the reverse have often been obscured by later interventions or restoration treatments.

The painting supports from the period before 1505 vary not only in the species of wood used, but also in technical characteristics, which leads to con-

clusions about both the working methods of the carpenters and the original context. Prior to his appointment as painter to the Wittenberg court, Cranach spent time in Vienna. Friedländer and Rosenberg⁷⁹ presume this to be during the years 1500/01 and 1504/05. Koeplin,⁸⁰ however, limits the period to 1501/02-1504 and Schade⁸¹ further reduces the stay in the city on the Danube to 1502-03. The year 1502 is documented with information about Cranach's illness in Vienna.⁸²

In the autumn of 1502, on the occasion of their marriage, Cranach painted the portraits of the Viennese university scholar Johannes Cuspinian and his wife, Anna Putsch (fig. 19). Both pictures are executed on broad centre boards⁸³ of spruce, which originally formed one longer plank. The double portrait, showing a legal scholar and his wife (1503, figs 181, 26), not only matches the Cuspinian portraits in terms of the wood species, but also in the technical characteristics, that is, in the way the wood was worked. These too, are broad centre boards, some of the knots are replaced by small pieces of wood, others are left. Inserted pieces as well as knots are covered by tow.⁸⁴ The backs of all four panels are smoothed longitudinally with a jack plane (*Schropphobel*)⁸⁵ of a similar width, and the edges are bevelled in a similar shape (figs 25, 31). The panels for both the portrait pairs certainly appear to have come from the workshop of the same carpenter and one can hypothesise that Cranach painted them nearby, since it is unlikely that he travelled carrying unpainted panels. The portrait of the legal scholar, which is dated 1503, seems to confirm that Cranach was in Vienna at that time.

The supports of the other paintings produced during the itinerant years not only vary from those of the four panels above, but also from each other (see table 2). The *Crucifixion* (c.1500, fig. 16) on lime and the wings depicting the saints Valentine and Francis (1502/03, figs 32, 33) on spruce have in common the application of tow over the joins on both sides. This is not found on other panels of this period. The X-radiograph of *St Valentine* also shows canvas applied to the panel in areas of subsequent gilding while the *Crucifixion* (1503, figs 27, 28) has the remnants of tow covering the reverse. The supports for *St Jerome* (1502, fig. 81) and the *Holy Family* (1504, figs 29, 176) seem to have been obtained from a different carpenter since wood species and treatment of the edges differ from the portraits and neither tow nor any other means of securing the joins was used. Apart from the two pairs of portraits, no other panels have knots cut out and replaced by inserted wood. Could it be that this indicates not just a change of carpenter but also a change of residence? Was the *St Jerome* (1502) really painted in Vienna, where lime wood was used comparatively seldom during this time?⁸⁶ Against this background, it also appears

27 (page 53)

Lucas Cranach the Elder,
Crucifixion, 1503. Panel,
138 × 98.9 cm.
Munich, Bayerische
Staatsgemäldesammlungen,
Alte Pinakothek.



questionable whether the *Crucifixion* (1503) was the main work during the Vienna years, as is assumed by Koeplin.⁸⁷ The use of fir and the adhesion of tow on the back are also frequent in Franconian painting.⁸⁸ Koeplin⁸⁹ and Schade⁹⁰ have pointed out that there are typological similarities between the *Crucifixion* and Dürer's works. However, technical examination cannot prove that Cranach created this work during a stop on his way to Saxony.⁹¹

28

Crucifixion,

1503 (fig. 27). Reverse of
the panel.



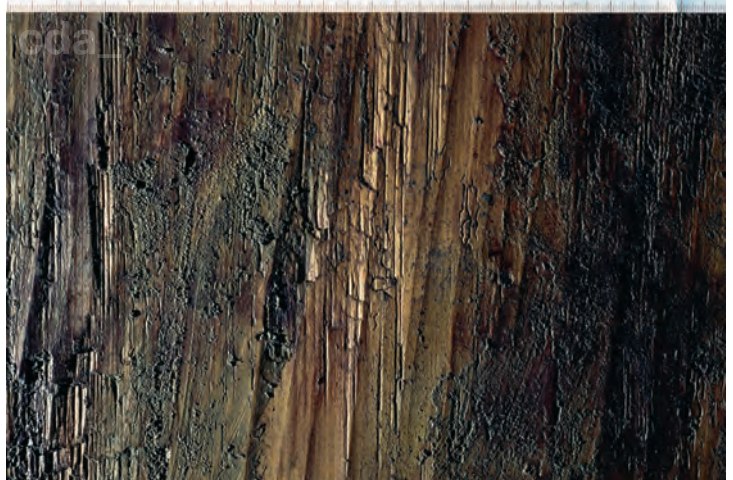
THE WOODEN SUPPORT

	<i>Crucifixion</i> (FR 1)	<i>St Valentine / St Francis</i> (FR 2, 3)	<i>St Jerome</i> (FR 4)	<i>Portraits of Johannes Cuspinian and His Wife</i> (FR 6, 7)	<i>Portraits of a Viennese Scholar and His Wife</i> (FR 8, 9)	<i>Crucifixion</i> (FR 5)	<i>Holy Family (Rest on the Flight into Egypt)</i> (FR 10)
Date	c.1500	c.1502/03	1502	c.1502/03	1503	1503	1504
Height (in cm)	58.4	91.1 / 86.8	56	60.3 / 60.2	54 / 52.6 reconstr. 54	137.8-138	70.8 (+ c.0.5)
Width (in cm)	45.8	49.1 / 47.5	41.6	45.4 / 54.2	39 / 36.4 reconstr. 40	99.3-98.9	52.9
Thickness (in cm)	0.4-0.6 (thinned)	c.0.8 (thinned?)/ 0.6-0.8	0.55-0.7 (thinned)	0.45-0.55	0.5-0.6	0.6-1.5	1.4-1.5
Species of wood	lime	spruce ⁹²	lime	spruce	spruce	fir	lime
Boards	3 boards	2 boards each	2 boards	1 centre board each	1 centre board each	7 boards	2 boards
Covering of joins	fibrous material	fibrous material and canvas	none	not applicable	not applicable	fibrous material on reverse	none
Treatment of defects in the wood	no obvious knots	knots retained	no obvious knots	some knots replaced, partially fibrous material on knots and inserted pieces	some knots replaced, partially fibrous material on knots and inserted pieces (fig. 48)	a few knots retained	knots retained
Treatment of reverse side	reworked at later time	smoothed with jack plane in direction of wood grain, plain wood	reworked at later time, traces of black paint along the edges	smoothed with jack plane in direction of wood grain, black paint and coat of arms (fig. 31)	smoothed with jack plane in direction of wood grain, black paint	smoothed with jack plane in direction of wood grain, plain wood (fig. 30)	smoothed with jack plane across direction of wood grain, black paint (fig. 29)
Fashioning of panel edges on reverse side	reworked at later time	reworked at later time / slightly bevelled	reworked at later time (presumably rectangular or slightly bevelled)	bevelled	bevelled (fig. 25)	broad bevelling (fig. 28)	rebate

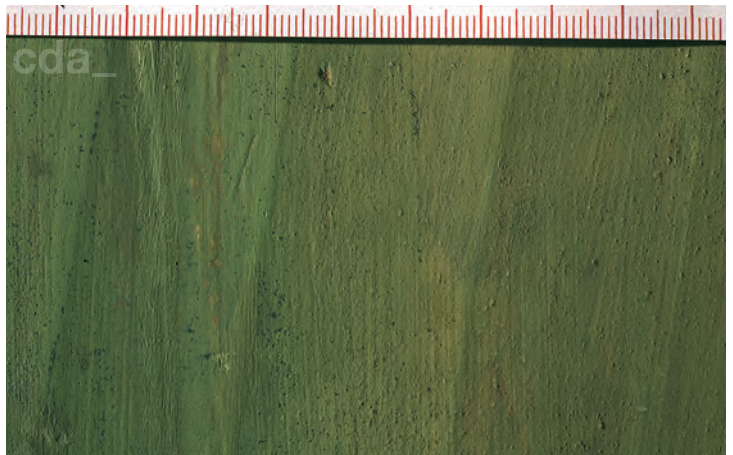
Table 2: Technical characteristics of the wooden supports before 1505



29
**Holy Family (Rest on the
Flight into Egypt),**
1504 (fig. 176). Detail of reverse.



30
Crucifixion,
1503 (fig. 27). Detail of reverse.



31
Portrait of Anna Cuspinian,
1502/03 (fig. 19). Detail of
reverse.

Traces of the woodwork on the wings of an altarpiece depicting the saints Valentine and Francis (c.1502/03, figs 32, 33) indicate their original arrangement. The panel with the stigmatisation of St Francis shows original traces of planing on the back. It is strengthened with dovetailed cross-battens, suggesting that originally it must have been a fixed wing. The St Valentine panel was obviously thinned on the back at a later time, but the present thickness is nearly equal to the St Francis panel, where any traces of cross-battens are absent. It is unlikely that this wing formed either the left counterpart to St Francis, as presumed by Koepplin and Falk⁹³, or the reverse of the St Francis. It is more likely that the St Valentine panel belonged to the left part of a second and variable pair of wings, which originally was a panel painted on both sides, or a panel that formed the back of a shrine wing containing sculptures.

Methods of panel production in the Wittenberg workshops

The lime wood supports of the first years at the electoral court of Saxony consist of boards of varying widths, mostly tending to be narrow.⁹⁴ Even strips of wood measuring less than four centimetres in width were glued together for the support of the *Fourteen Helpers in Need* (c.1505/07, figs. 34, 35). The supports are normally smoothed carefully on both sides, while the edges were given neither a rebate nor a bevel.⁹⁵ This is where the supports differ from those of the period before Cranach's appointment as court painter. Considerations of construction and economy provide an explanation: the amount of work required to produce a wooden support could certainly be reduced by choosing wider boards. The penalty for using wide planks was that they often include major flaws, like knots and areas of erratic grain. On the other hand, a panel consisting of a series of narrow boards may have a lesser tendency to warp, but joins also create natural points of weakness. Since knots and resinous deposits in the narrow boards were carefully replaced by rectangular pieces of wood, it could be interpreted as a sparing use of this precious material, but also as a preventive action to reduce the danger of splitting. There might also be a connection with the production of individual boards. According to the method of 'quarter sawing', for example, it is possible to cut a tree trunk into boards with mainly vertical year rings, but of relatively narrow width.⁹⁶ Centre or side boards cut lengthways were joined together for the wings of the *Altarpiece with the Martyrdom of St Catherine* (1506) and for the support of the *Portrait of a Man with Fur Hat* (c.1510).

Customarily, the wood was glued in the direction of the larger panel dimension, coinciding with the fibre orientation. Not so in the carpenter's workshop that produced Cranach's early Wittenberg supports. Until 1510/11, the wood

32 (page 58)

Lucas Cranach the Elder,
**St Francis Receiving the
Stigmata**, c.1502/03. Panel,
86.8 × 47.5 cm. Vienna,
Gemäldegalerie der Akademie
der bildenden Künste.

33 (page 59)

Lucas Cranach the Elder,
**St Valentine and a Kneeling
Donor**, c.1502/03. Panel,
91.1 × 49.1 cm. Vienna,
Gemäldegalerie der Akademie
der bildenden Künste.





34

Lucas Cranach the Elder and workshop, **Fourteen Helpers in Need**, c.1505/07. Panel, 84.3 × 117.8 cm. Torgau, Marienkirche.

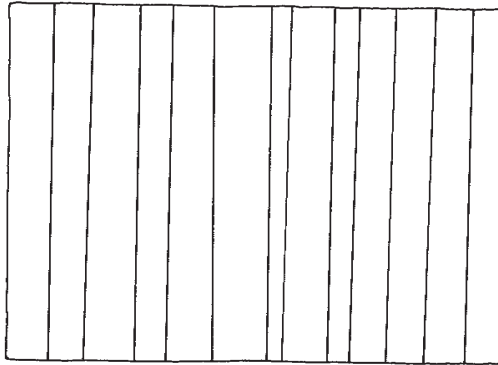


grain runs in the direction of the smaller dimension of the panel, with few exceptions, regardless as to whether the support was to be painted in an oblong or tall, rectangular format (figs 35-37).⁹⁷ The boards of the central panel of the *Altarpiece with the Martyrdom of St Catherine* (1506) are arranged vertically, that is, parallel to the smaller dimension of the panel. Had the wings each consisted of approximately five boards of the same length, glued together to form a narrow high rectangular format, this might have been consistent with widespread contemporary practice. In actual fact, there are nine and ten short boards joined together horizontally (fig. 36). The same arrangement appears in altar retables, small and large individual panels and in a diptych. Although it appears that a large panel was cut for the double portrait of Johann the Steadfast and his son Johann Friedrich I (1509), since the width of the boards in both paintings is nearly identical,⁹⁸ this assumption does not seem to be borne out in any of the preserved pairs of altar wings. In the sixteenth century there was a shortage of good quality wood in various regions.⁹⁹ It might be that supply difficulties and economic reasons caused the carpenter to adopt this practice of joining the boards. Considering the varying widths of boards within larger panels, it can be concluded that a supply of boards of equal width were not available to him – at a good price – as they were in later years. The fact that the edges of the boards do not run parallel

35

Fourteen Helpers in Need,

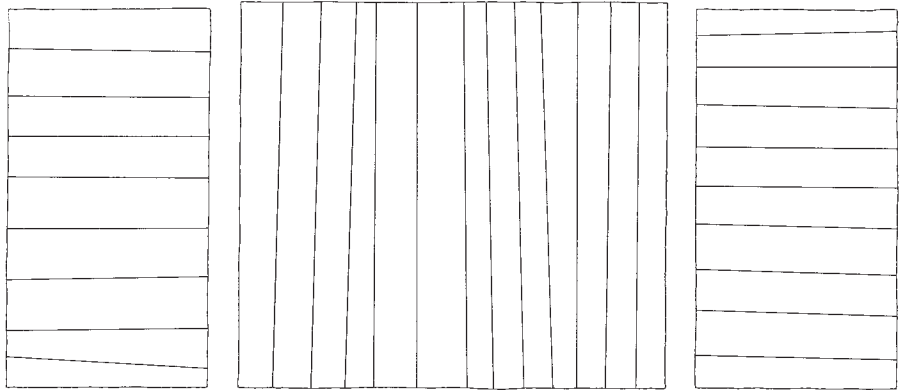
c.1505/07 (fig. 34). Diagram showing the panel construction.



36

**Altarpiece with the
Martyrdom of St Catherine,**

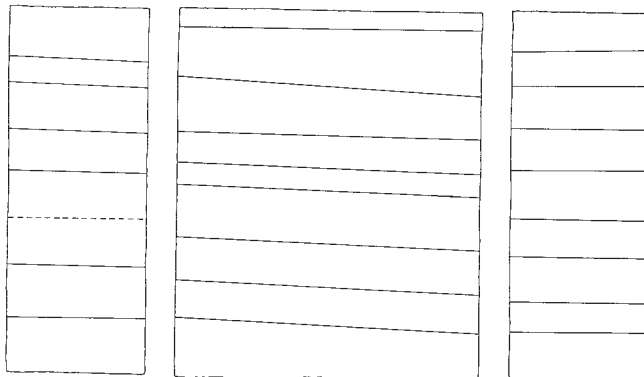
1506 (fig. 77). Diagram showing the panel construction.



37

**Altarpiece of the Holy
Kinship, 1509 (fig. 115).**

Diagram showing the panel construction.



also points to an economical use of the raw material. It may be that the lime wood planks were cut into shorter lengths for the same reason. This may have resulted in less waste when trimming the boards, bearing in mind the potential twisting of the wood during drying. The notion that the required panel dimensions could only be achieved by arranging the boards with the grain in the direction of the smaller dimension of the panel can be dismissed.¹⁰⁰ The reasons for the arrangement of wood grain across the larger dimension are also to be looked for in the technique of joining planks or in stability.

Cranach's panel maker preferred the customary joining of boards using a butt joint by which the edges of the boards are glued edge to edge without dowels or tongue and groove. A precondition for a durable joint is that the edges are brought into close contact, normally under pressure. Contemporary illustrations of carpenters' workshops and tools provide few clues as to gluing techniques. It is to be assumed that joining was frequently done without special implements, or that they were so simple as to be considered unimportant. Early written sources contain very little information on this point.¹⁰¹ Theophilus Presbyter mentions that the wooden panels or doors are joined with the help of a tool used by coopers for making barrels.¹⁰² Perhaps here the relevant joining pressure was achieved with the help of a rope.¹⁰³ On the Dresden *Altarpiece of the Virgin*¹⁰⁴ of around 1500, there is depicted a carpenter's workshop: it shows boards being glued together on the floor to make a panel. The implement used looks similar to a *Keillade*, a clamp or cramp using wedges, which later literature describes in various forms.¹⁰⁵ Considering how thin the early Wittenberg supports were (about 0.5-1 cm), it was perhaps easier to glue shorter boards together in this way.

The arrangement of boards described above has had a negative effect on the condition of the large panel paintings. Alterations in the dimension of the wood due to environmental changes are far more pronounced in the radial and tangential dimensions than in the direction of the grain, thus swelling and shrinkage has caused more damage to the ground and paint on the narrow rectangular formats if the boards were arranged in the direction of the smaller dimension. Possibly the carpenter was not specialised in the production of painting supports. This practice does not reflect typical Saxon, Franconian or Flemish traditions for panels.¹⁰⁶ The circumstance that Cranach's workshop was located in Wittenberg Castle until about 1510/12 and the fact that, with only a few exceptions, all panels were made using this technique, suggest that they were made by the same carpenter who was also employed by the court. One is reminded of the arrangement of boards for wooden ceilings,



38
 Lucas Cranach the Elder,
Christoph Scheurl, 1509.
 Panel, 50.5 × 42.5 cm. Private
 collection.

39 >
Christoph Scheurl, 1509
 (fig. 38). Reverse of the panel.

panelling or window shutters (see p. 275). It is, therefore, not certain whether Cranach had much influence on or even interest in the technique of panel manufacture.

There are, however, exceptions to the rule. Between 1505 and 1510, the portraits of Christoph Scheurl (1509, fig. 38) and Georg Spalatin (1509, FR 24),¹⁰⁷ the *Martyrdom of St Catherine* (c.1508, fig. 40), and a small triptych depicting the Resurrection (c.1509, fig. 108) all demonstrate a method of construction that diverges from the practice described. One can assume that these supports were not made on behalf of the elector and that for this reason Cranach obtained them from another carpenter. This assumption is supported by the presence of the coats of arms on the reverse of the *Resurrection*, referring to Landgrave Wilhelm II of Hesse and his wife Anna of Mecklenburg (fig. 186).¹⁰⁸ In addition, the panels differ from other works of that period: in the width of the boards used, the way the back was treated, as well as in profile and construction of the frame. The portrait of university professor Scheurl (1509) bears a carved mark on the reverse, which is unique and was perhaps the signature of a carpenter,¹⁰⁹ if not a later addition. Profile and corner joins of the frame are, however, almost identical to the double portrait in London (1509).



40

Lucas Cranach the Elder,
Martyrdom of St Catherine,
 c.1508. Panel, 112 × 95 cm.
 Budapest, Ráday Collection.

The dating of the *Martyrdom of St Catherine* (fig. 40) varies widely: Fenyő¹¹⁰ puts a date of c.1504, Friedländer and Rosenberg¹¹¹ assign a date of around 1505, Schade¹¹² places it in the years from about 1506 to 1512 and Grimm¹¹³ finally analyses the motifs adopted from the right inner wing of Dürer's *Heller Altarpiece*, which was conceived between 1507 and 1509. This painting is of extraordinary quality. The support consists of four broad lime wood boards in a vertical arrangement. The planks are almost twice as thick as usual (1.6 cm). On the front the joins are completely covered with canvas strips (figs 44, 45). Three dovetailed cross-battens on the back are probably original.¹¹⁴ Such techniques of stabilising the joins are rare on Cranach's painting supports.¹¹⁵ There are also other differences compared to later practices, which will be considered further on. There is little doubt that this painting support came from a different professional panel maker. The cost for transporting supports was relatively high compared to those of production.¹¹⁶ Was this support made at a place where Cranach stopped during his travels, perhaps even in Nuremberg?¹¹⁷ The methods used are found on various Nuremberg supports of the same period.¹¹⁸

Examination of the technology of panel making also supplies information on panels made in Wittenberg. In 1994, Erichsen published work on an altarpiece (c.1510/12) held in private ownership in Switzerland that shows scenes of Jesus among the scribes, feeding the 5000, the marriage feast at Cana, Elizabeth feeding the poor and the birth of Christ. He presumed that this had been executed by the workshop or that it was an early work by Cranach's brother Matthes in Kronach.¹¹⁹ The characteristic horizontal arrangement of the boards, that is, with the grain in the direction of the smaller dimension of the panel, now leaves little doubt that this altarpiece was made in Wittenberg.

The planning of the altarpiece for *St Johannis* at Neustadt/Orla (fig. 215) took place at a time when Cranach moved his studio out of the court into the town. According to archival evidence, the supports were made in 1511/12 (app. II, 42, 45). The technique used for joining the panels combines the practice of the early years with characteristics found during the following decade: the boards of the inner pair of folding wings run horizontally, those of the fixed wings vertically. Could this confirm the assumption that the arrangement of the boards relates to the intention of achieving stability? However, during the following years the lime wood panels continue to be glued in the direction of the larger dimension, almost without exception. Thicker planks are used: panels made from lime wood before 1510/12 measure scarcely one centimetre in thickness; this increases to one-and-a-half centimetres during the following



41
 Lucas Cranach the Elder and workshop, **Virgin Standing on a Crescent Moon**, c.1515/20. Frankfurt, Städelsches Kunstinstitut. Detail of reverse.



42
 Lucas Cranach the Elder and workshop, **Christ and the Woman Caught in Adultery**, c.1520. Kronach, Fränkische Galerie. Detail of reverse.

43
 Lucas Cranach the Elder and workshop, **Altarpiece with the Martyrdom of St Catherine**, 1506. London, The National Gallery. Detail of X-radiograph.

period.¹²⁰ The boards are mostly cut tangentially from the trunk and not always divided parallel to the centre of the stem.¹²¹ Accordingly, there are clear variations in width.¹²² During the process of joining the panels the common rule of ‘core wood to core wood’ and ‘sapwood to sapwood’ in order to reduce warping was not given sufficient attention.¹²³ There was frequently a rebate along the edges (fig. 41) and the back, as a rule, was (comparatively) roughly jack planed (fig. 42). One might assume that Cranach, having set up his new workshop in town, soon after employed a carpenter with different working habits.

Technical details of the support help to establish a chronology of works and their grouping. Thus, following the suggestion made by Schade¹²⁴, the *Virgin and Child* (FR 30) in the Thyssen-Bornemisza collection can be dated a few

years later than 1510, placing it after the so-called *Virgin and Child under the Trees* (FR 29).¹²⁵ The *Adam and Eve* in Warsaw (FR 44) is most probably an earlier version of the same subject in Munich (FR 43).¹²⁶ Attention can be drawn to the panels with Adam and Eve (c.1508/10, fig. 275) in Besançon,¹²⁷ largely unconsidered by previous research. The characteristics of the panels, which are joined in cross direction, and the painting technique suggest that these excellent works belong to Cranach's earliest surviving versions of the subject (see pp. 317-318).

The stabilisation of joins and the treatment of knots and resinous deposits

The techniques for stabilising the joins between boards vary not only in the early works but also during the Wittenberg years. Butterfly-shaped pieces of wood were very occasionally used to prevent glued joins from opening, and those inserted into the reverse of the wings of the *Altarpiece with the Martyrdom of St Catherine* (1506, fig. 43) must have become visible early on in the layers of paint, which possibly led to the decision to avoid their use, particularly in panels painted on both sides. These butterfly keys are retained in the panels with the *Virgin and Child under the Trees* (c.1510), the *Virgin and Child with Two Saints* (c.1512/14) and in a few panels of larger format from later decades.¹²⁸ The use of rectangular wooden pegs across the joins, as frequently practiced in the Netherlands,¹²⁹ has only been detected on the *Princes' Altarpiece* (c.1510). It remains unclear why bracketing techniques like these were applied to only a few panels. Since they do not clearly relate to other characteristic features like the width and the thickness of the boards, the orientation of the boards within the panel, and the treatment of edges and the reverse, it is difficult to conclude if they simply indicate the personal preferences of some of the carpenters.

Dovetailed cross-battens inserted on the reverse of the support were not an option for the thin panels of the early Wittenberg years. From that period, only the *Martyrdom of St Catherine* (c.1508), already discussed, and the portrait of Elector Friedrich III the Wise (FR 64A) are stabilised in this way. There is controversy as to whether this portrait of the elector is, in fact, a work of Lucas Cranach the Elder. It has been referred to repeatedly as a copy made in the late sixteenth century.¹³⁰ Since the panel differs considerably in the widths of the boards, in their thickness and the treatment of the back,¹³¹ and considering secure attributions and well-documented works, this support was most probably not produced in the workshop of the carpenter who supplied Cranach with panels up to 1510/11 (see pp. 133-134).



44

Detail from **Martyrdom of St Catherine**, c.1508 (fig. 40).

45 >

Martyrdom of St Catherine, c.1508 (fig. 44). Detail of X-radiograph.

Animal skins, woven fabrics or fibres can be used to stabilise joins, for smoothing out irregularities in the surface of the wood, to balance out tension in case of changes in the dimensions, as well as to improve adhesion of the ground. So far, only one panel has been identified with strips of parchment covering the joins;¹³² also, the widespread method of gluing canvas on joins has, to date, been found only rarely in Cranach's oeuvre. The application of canvas in the upper parts of the panels of the saints Valentine and Francis (c.1502/03) is, presumably, to be understood as a preparation for the water-gilded haloes. Burnishing gold leaf subjects the ground to high stress and may lead to cracking at points of weakness such as joins. The extensive use of canvas to prepare the panel of the *Virgin and Child with St Anne* (c.1515/16), also with water-gilded haloes, is to be viewed with this tradition in mind. In addition, the support of the *Virgin and Child under the Trees* (c.1510) has the upper half covered with canvas, and the X-radiographs of the *Princes' Altarpiece* (c.1510, fig. 4) show small and larger pieces of loosely woven canvas, perhaps intended to prevent cracking of the ground in the areas of flesh paint. The support for the *Martyrdom of St Catherine* (c.1508, figs 44, 45) is the earliest surviving example of joins covered with narrow strips of canvas. Only occasionally is this method encountered on later works.¹³³ The density of the fabric varies between 8 and 15 threads per square centimetre (see p. 243). Considering that it was rare for Cranach's panels to have the joins covered with canvas, in the case of the *Neustadt Altarpiece* (1511-13, fig. 215) this permits an important conclusion: based on stylistic variations, Erichsen argued for a later addition of the predella panel.¹³⁴ However, the technical examination of the altarpiece reveals that the wing paintings and the predella consist of boards from coniferous wood of almost the same width, and that on all the panels the joins are partially covered with four- to five-centimetres-wide can-

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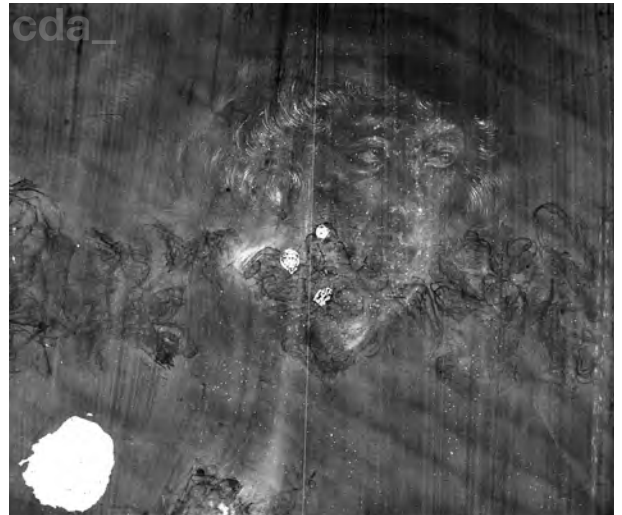
Lucas Cranach the Elder and workshop, **Count Palatine Philipp of the Rhine**, c.1520/22. Panel, 44.6 × 30 cm. Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie.

47 >

Count Palatine Philipp of the Rhine, c.1520/22 (fig. 46). Detail of X-radiograph.

vas strips of the same thread count (14×14 per cm^2). This finding invalidates the hypothesis that the predella panel was added later. The point of departure for future research must be, therefore, that all the pictures that constitute this altarpiece were painted at about the same time.

While the joins and defects in Cranach's earliest panels are often covered with tow,¹³⁵ this is not the case with the supports used during his first ten years at the court.¹³⁶ The technique of gluing coarse and broken fibres onto the wood was introduced into the Wittenberg workshop as standard practice only in about 1514/15. The *Taking of Christ* (1515, FR 75), the *Holy Trinity* (c.1515, FR 65), *Christ as the Man of Sorrows* (c.1515, FR 381E¹³⁷) and the four fragments of an altarpiece (c.1515, FR 64B) are among the earliest examples of panels where fibrous material does not cover the joins, but is applied in several strips to the front across the grain.¹³⁸ Even seven decades later, adhesions of tow in



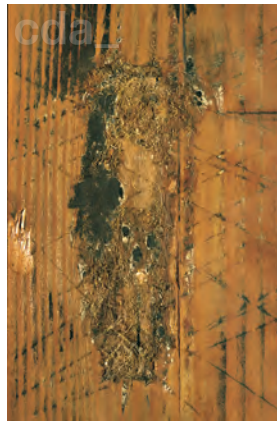
a horizontal direction are clearly visible on the *Colditz Altarpiece* (1584). Panels of lime, as well as coniferous wood, were prepared in this way.

The purpose of this practice is uncertain: Helland considered a general inspiration was derived from mortars in buildings reinforced with straw or animal hair¹³⁹ and, indeed, as early as 1506 Cranach receives for eight *groschen* moss and tow (*mis* and *werg*, app. II, 10) and during the building of the castle at Torgau he also charges 12 *groschen* for three pounds of fibrous tow (*aderwergk*, app. II, 208), thus justifying this assumption. If it was to improve the adhesion of ground to the wooden panel, it is surprising that the fibrous material was often applied in strips (fig. 47). Occasionally in these areas, a diagonal scoring into the wood was used to improve adhesion.¹⁴⁰ The idea was perhaps to stabilise the panel, analogous to the function of cross-battens, and to reduce warping during the application of the ground, the water content of which might be expected to cause movement in the support.¹⁴¹ Earlier examples from the Tyrol¹⁴² and Nuremberg¹⁴³ show that this rather unusual technique was developed elsewhere.¹⁴⁴ Tow was frequently applied in this manner on panels from the workshop of Michael Wolgemut.¹⁴⁵ Dürer's *Eve* (1507)¹⁴⁶ was also prepared in the same way. It remains to be confirmed whether an itinerant craftsman might have brought this practice to Wittenberg or whether it was introduced after a conscious analysis of other workshop practices.

Fibres applied to the front of the panel beneath the ground often influence the formation of cracks and may even become visible on the paint surface. They can be identified by X-radiographs or examination in raking light, although the type of material cannot be specified using these methods. In 1963, the Institut Royal du Patrimoine Artistique in Brussels proved that the fibres on a panel in Larvik Church, Norway, *Christ Blessing the Children* (after 1537), were silk.¹⁴⁷ Cadorin and Veillon,¹⁴⁸ Hoffmann¹⁴⁹ and also Sandner and Ritschel,¹⁵⁰ on the other hand, described these fibres as hemp, while Bünsche¹⁵¹ identified them as flax. The fibre samples taken for this project from the reverse of the portraits of the wife of a Viennese scholar (1503, fig. 48), Count Palatine Philipp of the Rhine (1520, figs 46, 47), and a man (von Schleinitz?, 1526) all proved to be raw silk filaments,¹⁵² which leads to the hypothesis that silk fibres were also applied to the front. So far, there is no information on the widespread application of this technique,¹⁵³ and from where Cranach received the material. In comparison with hemp or flax, fine silk fibres might have been preferred because they could be applied in thinner layers, thereby reducing the amount and thickness of chalk ground required to cover them. As mentioned above, carpenters tended to treat knots and resin deposits in the wood in quite different ways. The *Liber illuministarum*¹⁵⁴ recommends the

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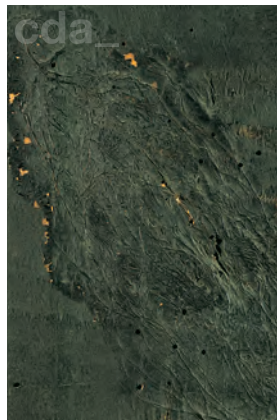
Portrait of a Wife of a Viennese Scholar, 1503 (fig. 26). Detail of reverse.



49 >

Lucas Cranach the Elder and workshop, **The Virgin Standing on a Crescent Moon**, c.1515/20.

Frankfurt, Städelsches Kunstinstitut. Detail of reverse.



50 >>

Workshop or former pupil of Lucas Cranach the Elder, detail from **Sts Willibald and Walpurgis Adored by Gabriel von Eib, Bishop of Eichstätt**, 1520. Bamberg, Historisches Museum.

51

Count Palatine Philipp of the Rhine, c.1520/22 (fig. 46).

Detail of reverse.

52 >

Lucas Cranach the Elder and workshop, **Holy Family (Rest on the Flight into Egypt)**, c.1512/15. Wörlitz, Staatliche Schlösser und Gärten. Detail of X-radiograph.

careful removal of these deficiencies and the plugging of spaces with another piece of wood. Sometimes Cranach's carpenters replaced knots with wood of the same thickness as the panel itself. In other cases, the plugging was done on one side only (fig. 49) and occasionally with two thin inlays of wood (fig. 52), on both sides. These vary from almost rectangular or square shapes to irregular ones. In some panels, knots have been removed, while others were ignored.¹⁵⁵ In more than half of the investigated works, knots were left untreated, only rarely was canvas¹⁵⁶ used to conceal problem areas; after 1514/15 the material tended to be tow (fig. 51).¹⁵⁷ The panel with the saints Willibald and Walpurgis adored by Bishop Gabriel von Eyb (1520) was possibly made in the workshop of another carpenter. The method of wood replacement is not, however, the usual one applied to works by Lucas Cranach the Elder, as the inserts are all rhombus shaped (fig. 50).¹⁵⁸

Beech wood panels and new workshops

There is no doubt that the panels made from beech contain fewer problem areas than those made of coniferous woods and lime. Just under ten per cent of all panels investigated containing knots were made of beech. The low number of irregularities and straight grain, typical features of beech, meant less effort and work for the carpenter and equally raised the quality of the panel from the painter's point of view. For these same reasons, beech wood panels could also have been cheaper to produce. The panel maker used thin planks (about 0.5-1.5 cm), cleaved or sawn from the tree trunk both radially and tangentially. The boards are usually wider than those of lime wood: the first beech panels from the years 1521/22 are constructed from the widest planks, often more than 30 centimetres in width.¹⁵⁹ Consequently, panels of the standard formats 'A' and 'B' consist of only one board and the 'C' formats frequently of two, oriented parallel to the smaller dimension of the panel.¹⁶⁰ This practice of cross-directional joining can be explained by the more economical use of the usually wider boards.

The traces of production found on the beech wood panels and the way tow was applied imply that such changes can most probably be related to the appointment of a new carpenter. The reverse sides of numerous lime¹⁶¹ and beech¹⁶² wood panels made in the 1520s retain hollowed traces of a jack plane. Different from the lime wood panels, the edges of smaller panels made of beech wood are usually beveled at the back; larger panels were mostly given a rebate. The tow is glued onto the joins (fig. 54), and only in specific cases has it been applied in an irregular way. In some cases, this form of stabilisation is found both on the front and back. So far, no beech panels with fibrous material applied across the grain are known, although this technique continued to be used for lime panels. There the tow was either aligned with the join, or applied irregularly. In all the examined panels, the various forms of tow application described above correlate with the ways the panels are produced. It can therefore be concluded that the securing of the joins with tow was done in the carpenter's rather than in the painter's workshop. The evidence implies that there must have been at least two carpenters: one who supplied Cranach for years with lime wood panels, concentrating on the production of these painting supports in usually larger and non-standard formats, and an additional, probably a new carpenter, who produced beech panels, but mainly in standard sizes. Higher demand for paintings around 1520 led to an increase in the production of panels and thus obviously created a need for the second panel maker (see p. 277). Investigations by Lücke prove that in 1518, Cranach acquired the houses at No. 1 Schloßstraße where he had new and larger workshops set up.¹⁶³

53

Lucas Cranach the Elder
and workshop, **Cardinal
Albrecht of Brandenburg as
St Jerome**, 1525. Staatliche
Museen zu Berlin, Preußischer
Kulturbesitz, Gemäldegalerie.
Reverse of the panel.

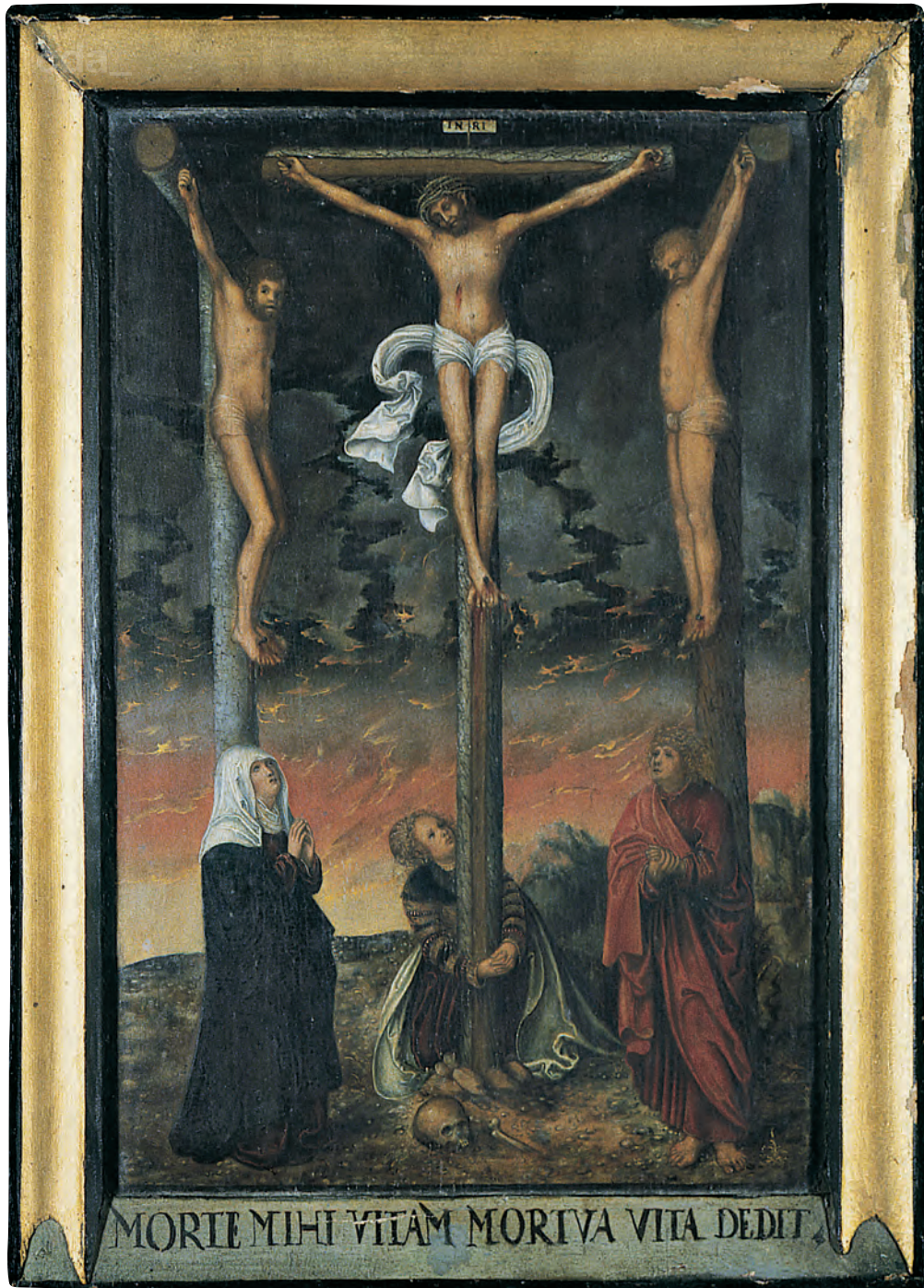
54 >

Lucas Cranach the Elder
and workshop, **Margarete
of Austria**, c.1525. Dessau,
Anhaltische Gemäldegalerie.
Detail of X-radiograph.

This analysis of the variations in production technique and the periods in which they were practiced helps to further clarify questions relating to the work of the Cranach family. For example, the Cranach copy of the *Last Judgment* (FR 99) by Hieronymus Bosch was linked directly with the court painter's journey to the Netherlands in 1508 (figs 263-266). The overall working period to complete the copy was estimated to have been 16 years.¹⁶⁴ The examination of the support reveals that the boards are oriented parallel to the larger dimension of the panels and the joins are covered with tow. Therefore, the supposition that the painting was produced before 1520 can be ruled out. Equally, the *Adoration of the Magi* in the Stadtkirche St. Wenzel in Naumburg, dated by Friedländer and Rosenberg at c.1513/14, is not likely to have been produced before 1520 because of tow applications along the board joins.

These examples reaffirm the contribution of technical investigation in revealing the means and methods of Cranach, his studio and associated carpenters in the preparation and treatment of his painting supports. It is apparent from these studies that the carpenters produced panels in a variety of ways, with a variety of wood species and in standard formats. This leads not only to a revised chronology but also provides insight into material relationships between separated works.





Frames

55

Lucas Cranach the Elder
and workshop, **Crucifixion**,
c.1520/30. Panel, painted
surface 39.3 × 26.5 cm. Mahlis,
Evangelische Kirche.

*'13 groschen the carpenter for 4 frames to fit the portrait paintings...'*¹

The original frames of the paintings by Lucas Cranach the Elder have received little attention in the past. These frames form an indispensable part of the painting² and correspond to traditional usage. Not only were they intended to provide a formal finish to enhance his paintings, they also formed an area of transition between the real world and that of the picture. In addition, the frame was used to fulfil structural functions while protecting the panel and painted surface from mechanical damage.

Many of Cranach's original frames have been altered over time, often in order to accommodate changes in taste.³ In the case of the *Altarpiece with the Martyrdom of St Catherine* (1506), it is possible to trace many replacements. After the retable had been transferred to the Dresden picture collection in the early eighteenth century, the panels received a Baroque-style gallery frame.⁴ In 1837, there is evidence of framing in a contemporary style.⁵ A photograph from the early twentieth century shows the left wing in a neo-classical scotia frame with an egg-and-dart motif,⁶ and in the 1950s the retable was framed in a shallow concave moulding of polished oak. Most recently, in 1998, the left shutter of the retable was displayed in a newly polychromed frame.

The earliest intact frames date from 1509, after Cranach had returned from the Netherlands. Of some hundred paintings from the Wittenberg workshop, only about 20 have retained frames that can be identified as authentic.⁷ These are predominantly engaged frames (see *Construction*). It is usually possible to determine their originality by examining the border area between the moulding and the panel. Applied frames (laminated to the outer edges of the panel) are well known from smaller portraits (fig. 57).⁸ If the original moulding has been lost, an examination of the edge of the panel sometimes allows for conclusions about the original type of framing. On various panels, notches prepared on the verso indicate that the picture was fitted from the reverse into the rebate of the frame and fixed with wooden or metal pins.⁹ It has, however, proved very difficult to identify authentic rebated frames.¹⁰ In addition to engaged, applied and rebated frames, the predella panels of the altarpieces at Neustadt and Zwickau provide some exceptions. In the case of the former, the panel has been inserted from behind into the predella box, which is moulded on the front. In the *Zwickau Altarpiece* (c.1518) the frame was painted as a *trompe-l'oeil* onto the panel. This survey charts the most commonly used frame designs, their construction, profiles and finishes.

Construction

The majority of the panels by Cranach and the Wittenberg workshop from the first decades of the sixteenth century were provided with engaged frames, which were grooved mouldings into which the painting support was inserted. This type of framing gave sufficient stability and allowed for the presentation of both sides of the panel. Until around 1510/11, the width of the groove corresponded to the full thickness of the panels regardless of their size (fig. 56). A small gap between panel and frame allowed for changes in the dimension of the wood. However, as a result, the panel could slip slightly so that the bare wood at the edge of the panel became all-too visible. Occasionally, attempts were made to fix the position of the panel; for example, on the right-hand fixed wing of the *Neustadt Altarpiece* (1511-13), which has retained its original rebated frame, an iron nail has been driven through the lower moulding and the painting's support.¹¹

The edges of the shutter panels of the *Zwickau Altarpiece* (c.1518) have been inserted completely into the slotted moulding, but the carpenter provided the fixed wings with a rebate and slid only the tapered edge into the groove. This method prevailed after 1510/11 mainly for the framing of larger panels and those painted on one side. For structural reasons altar wings are provided regularly with thinner and thus lighter panels, the edge of which are fully slotted into the mouldings.¹² Smaller beech wood panels were usually provided with a wide bevel on the verso to be fitted into engaged frames (fig. 53). Larger formats also reveal rebates presumably for the same purpose.

Panel and frame often were produced from the same wood species. In the case of the *Ten Commandments* (1516, figs 64, 65) the moulding and the panel are both made of fir. For the *Zwickau Altarpiece* (c.1518) the carpenter also preferred a coniferous wood while the more elaborate ogee arch was made from a deciduous wood species. Frequently small beech wood *tondi* are provided with turned lime mouldings (figs 60, 61).

Engaged frames with mortise and tenon corner joins are common in German-speaking regions.¹³ The vertical sections usually contain the slots, the horizontal sections the tenons. The moulding is cut to a mitre join at the top, partly overlapping at the bottom. The double mortise and tenon join, which has been used in the construction of the intact frames on the portraits of Johann the Steadfast, Johann Friedrich I and Christoph Scheurl from 1509, was subsequently changed to a version based on a single slot only (fig. 56). The mouldings of the fixed wings of the *Neustadt Altarpiece* (1511-13) are only fitted with a simple straight and mitred half-lap (fig. 63). The wooden joins have been glued and, depending on the load, additionally secured with wooden dowels¹⁴ or nailed-on iron bands.¹⁵

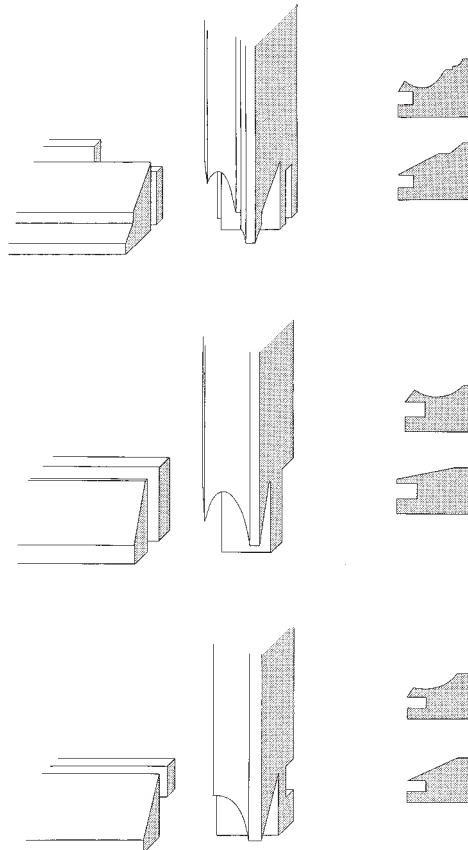
The frame of the *Resurrection* (c.1509) reflects the special form of a haunched mortise join¹⁶: the vertical sections are thinned down to a third on both sides but end in a block of solid wood. By contrast, the horizontal sections have two tenons reduced by the width of the block. This type of join prevents the members from slipping apart vertically. The construction of the frame of the *Altarpiece of the Virgin* (1518) in Brandenburg follows the same principle, though in the opposite direction. A locked join with one block respectively on the reverse of the vertical sections was used some years later in the frame of the *Portraits of a Couple von Schleinitz?* (1526, fig. 56). Whereas the join is locked at the top and the bottom of this double portrait, in the case of *Martin Luther and Katharina von Bora* (1529) locked tenons exist only at the bottom. Just one example of a frame with a completely mitred mortise and tenon join survives on the Dessau *Crucifixion* (c.1523). The sections are mitred on all sides, so that the join is not apparent to the viewer.¹⁷

56

Top: frame of **Johann the Steadfast and Johann Friedrich I the Magnanimous**, 1509 (fig. 164).

Centre: frame of the **Crucifixion**, c.1520/30 (fig. 55).

Bottom: frame of the **Portraits of a Couple von Schleinitz (?)**, 1526. Weimar, Kunstsammlungen.



57

Lucas Cranach the Elder and workshop, **Martin Luther**, 1526. Panel, 22.5 × 15.9 cm. Eisenach, Wartburg-Stiftung.



Two wrought-iron hinges join the frames of several double portraits,¹⁸ allowing the panels to be closed like a book or board game (fig. 60). A hook-shaped lock made of iron is preserved on the portraits of Martin Luther and Katharina von Bora (1529, fig. 61). The majority of shutters are attached to the shrine or the central panel by sets of two wrought-iron hinges. The London double portrait (1509, fig. 164) and the *Neustadt Altarpiece* (1511-13, fig. 215) are proof that they were joined with iron nails after the frames had been gilded. In both cases, nail tips are visible in the hollowed mouldings.¹⁹ The retables were also provided with bolts to close them. An invoice from the year 1536 indicates that a *Last Judgement* was even kept under lock and key.²⁰

Profiles

For many years Cranach preferred a simple, deep, hollowed frame. Traditionally the vertical and top scotia mouldings contrast with the flat rainsill base, reinforcing the idea of the frame as a window²¹ (figs 38, 55, 164). Cranach's variation on the type often found in German medieval panel painting, which typically consists of a flat border with cavernous moulding and bevelled inner edge, has a more dramatic effect with its deep scotia and the flat border reduced to a narrow step,²² enhancing the illusory perspective of the painting (fig. 56). The painter himself seems to have decided on the moulding, as



58

Lucas Cranach the Elder and workshop, **Martin Luther and Katharina von Bora**, 1525.

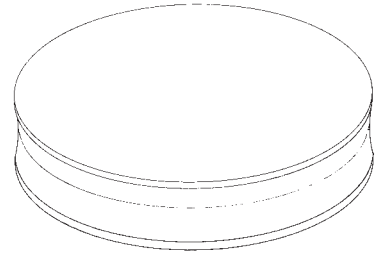
Panels, approximately 10 cm in diameter. Basel, Kunstmuseum.



59

Martin Luther and Katharina von Bora, 1525 (fig. 58).

Diagram of frame construction.



there are preparatory drawings that illustrate the type of frame and moulding intended for a particular painting or altarpiece (fig. 18).²³ The scotia moulding was chosen for use on small individual panels as well as on the largest of altarpieces, regardless of scale or subject matter. Examples of this sort of frame are preserved from the years 1509, 1511, 1518, 1521 and 1526, each of which reveals only slight modifications. The edge mouldings of the Neustadt retable shrine are enriched by collonettes (fig. 63), while on the frames of the portraits of Johann the Steadfast, Johann Friedrich I and Christoph Scheurl and the inside shutters of the Neustadt retable, the scotia and the black raised outer edges are enriched by a narrow half round (fig. 56). The half round was later abandoned, probably for the sake of simplicity. In addition, the later frames are less carefully planed.

60

Johann the Steadfast and Johann Friedrich I the Magnanimous, 1509 (fig. 164). Detail of frame.



61 >

Lucas Cranach the Elder and workshop, **Martin Luther and Katharina von Bora**, 1529. Darmstadt, Hessisches Landesmuseum. Detail of frame.



By the 1520s at the latest, the scotia changes to ogee moulding with rainsill base preserved on examples from the years 1529, 1532 and 1535, as well as the *Kemberg Altarpiece* of 1565 (fig. 62).²⁴ The Cranach workshop adhered to a conservative Gothic design over many decades, despite changes of carpenter.

The second type of frame used by Cranach is a northern version of the classical *cassetta* frame with rainsill base. The earliest is preserved on the *Ten Commandments* (1516, figs 64, 65).²⁵ On three examples²⁶ the innermost moulding consists of torus and scotia. An ogee moulding and a flat step form the outer border. At a later period the window-like function of the rainsill was abandoned and the profile was modified several times.²⁷ Occasionally this type is adorned with three-dimensional rosettes and other additions to the picture, such as coats of arms or inscriptions conveying information, for example, on subject and ownership (fig. 66).²⁸

The circular frames of the small capsule portraits have special profiles that are shaped to fit into each other (figs 58, 59). The portraits are then to be found inside a monochromatically painted 'capsule' for safekeeping.²⁹ The desire to present panels differently and Italian influences certainly encouraged new frame designs and thus seems to have led to changes in working sequence. It is conceivable and likely that frames were designed to conform to prevailing interior decoration. Paintings were occasionally inserted into wainscoting and fitted with profiles echoing the architectural vocabulary. As early as 1508, Dürer designed an aedicular frame along Italian lines for the *Landauer Altarpiece* (1511).³⁰ Technical examination of Cranach's Budapest *Martyrdom of St Catherine* (c.1508) has led to the assumption that in this case Cranach chose a more modern form of frame, which unfortunately has not survived.³¹ The filigree late Gothic tracery of the *Neustadt Altarpiece* (1511-13, fig. 215) gave way to other organic forms featuring fruits and foliage,

62

Lucas Cranach the Elder and workshop, **Martin Luther and Katharina von Bora**, 1529. Darmstadt, Hessisches Landesmuseum. Detail of frame.



63 >

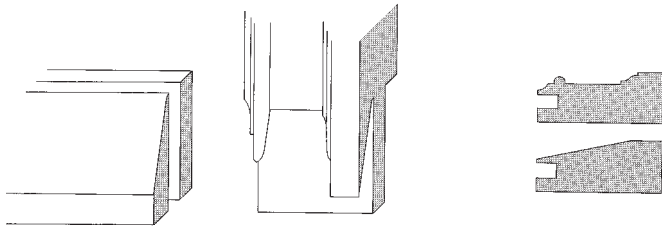
Neustadt Altarpiece, 1511-13 (fig. 215). Detail of frame.



which Cranach adopted at the same time in woodcuts and retable designs (fig. 18).³² His drawing of an aedicular frame with an epitaph design, which shows a married couple praying on either side of Christ on the cross (c.1530),³³ confirms that Italian Renaissance motifs and settings had been adapted in the Wittenberg workshop (fig. 67).

Lucas Cranach designed frames for his paintings in accordance with formal, structural and economic requirements that would have been, to varying degrees, dictated by the wishes of his clients. The width of the frame of diptychs or triptychs may have been determined by the subject, for example when the composition crosses the boundaries of the individual panels, as in the case of the *Altarpiece of the Holy Kinship* (1509, fig. 115). A change of distance between the central panel and the two shutters would spoil the perspective of the tiled floor, which had been conceived to show one room extending over all three panels.

The widths of the double-winged frames of the *Neustadt Altarpiece* (1511-13) are integral to the entire composition, which spreads over the exterior of the left and right inner wing (fig. p. 2). In the case of the life-sized marriage portraits of Duke Heinrich the Devout of Saxony and the Duchess Katharina of Mecklenburg (1514, fig. 68) this observation and technical examination resulted in a revision of the hypothesis by Distel,³⁴ Schade³⁵ and Löcher,³⁶ who had interpreted the ducal pair as one of the first double portraits originally painted on a single panel. The reason for this assertion was provided by the sheath of the sword, which reaches from one picture into the next. However, the distance between the sword and the edge of the floor in both panels differs by four centimetres. If both ends of the sheath were to be joined, the



64
 Lucas Cranach the Elder
 and workshop, **The Ten
 Commandments**, 1516. Panel,
 320 × 142.5 cm. Wittenberg,
 Stiftung Luthergedenkstätten in
 Sachsen-Anhalt, Lutherhalle.

65
The Ten Commandments,
 1516 (fig. 64). Detail of
 frame and diagram of frame
 construction.



66

Lucas Cranach the Elder and workshop, **Virgin and Child in a Landscape**, 1518. Panel, c.42 × 30 cm. Formerly Glogow, Cathedral; missing since the Second World War.



angle of inclination would require a 12-centimetre-wide space in between. It is unlikely, however, that the compact composition included an appropriately wide black stripe between both figures and therefore, the conclusion must be that Cranach conceived the portraits as one, but painted them on two panels, with two adjoining frames or an architectural wall decoration filling the space in between.

Decorations

The corner regions of semi-finished frames were occasionally covered with pieces of canvas before a white ground was applied. Decoration followed with metal leaf on poliment or oil mordant. Gold has been employed in several ways to enhance the frame and therefore its significance. In contrast to the widespread medieval workshop practice of finishing the frame before proceeding with the painting,³⁷ pigmented oil media and metal leaf have been repeatedly found on the uppermost paint layers of Cranach's panels. Surely this indicates that the frame was finished in the later stages of production (see *Interim framing*). Convex, concave and ogee mouldings are usually gilded,

67

Lucas Cranach the Elder,
Design for an Epitaph,
 c.1530. Paper, 20.1 × 14.4 cm.
 Brunswick, Herzog Anton
 Ulrich-Museum, Kunstmuseum
 des Landes Niedersachsen.



68 (page 85)

Lucas Cranach the Elder and
 workshop, **Duke Heinrich
 the Devout of Saxony
 and Duchess Katharina
 of Mecklenburg,** 1514. Panels
 transferred to canvas, each
 183.5 × 82.5 cm. Dresden,
 Staatliche Kunstsammlungen,
 Gemäldegalerie Alte Meister.

whereas the flat sill occasionally bears a layer of silver (figs 55, 63), the surface of which provides a suitable surface for lettering.³⁸ The outer flat step and the inner bevel are often offset with black (figs 38, 55, 63). This pattern is known from fifteenth-century Netherlandish panel paintings.³⁹ From c.1500 on, this decorative device also spread to Germany.⁴⁰ As no frames from early Cranach paintings have been identified, it is not possible to establish conclusively whether Cranach introduced practices that he witnessed during his trip to the Netherlands. The invoices for richly polychromed finishes on frames refer primarily to canvas paintings.⁴¹ Even on drawn retable designs from the later years, yellow washes indicate the eventual placement of gold. In two cases, engraved foliage patterns refer back to Gothic decorative techniques.⁴² It is still not known whether frames of stained and polished wood or with furniture inlays were also produced in the Wittenberg workshop.⁴³



Interim framing

The invoices from the Cranach workshop indicate that the frame might be carved and decorated either parallel to the painting process or after the picture had been completed.⁴⁴ Technical examination confirms that the sequence of panel and frame production was not consistent. In 1502 the *Penance of St Jerome* (figs 69, 81) was painted on an unframed panel: the ground and paint layers cover the whole surface to the original edges. By contrast, the contemporary portraits of Johannes Cuspinian and his wife (1502/03, figs 19, 70) were framed before the application of the ground. The original frames of *Johann the Steadfast* and *Johann Friedrich I the Magnanimous* (1509, fig. 164) were added presumably after the painting of the portraits had commenced, but before their completion. Such inconsistency is detectable over many years in the Wittenberg workshop.⁴⁵

If the panel was inserted into its frame before the ground had been applied, there is the so-called priming barb close to the edges of the panel. Occasionally, we find several traces of gilding and/or paint on the bare wood outside this barb, implying that the panel and the frame were sometimes separated again after priming. The presence of paint and the way it appears can suggest the use of a temporary frame⁴⁶ (fig. 72), an assumption that is supported by incisions in the ground along the barb⁴⁷ (figs 71, 74) and by black painted borders⁴⁸ (fig. 73). These incised lines may have marked out areas to be painted⁴⁹ or possibly were intended to prevent damage to the ground when the frame or interim frame was removed – a practice that was uncommon in Germany, though not restricted to the Cranach workshop.⁵⁰ The black edges can be interpreted as having served as a visual border that would have been helpful during the painting process. In a similar manner, black lines painted along the edge appear on Netherlandish, Italian and Saxon canvas paintings during the fifteenth century.⁵¹ On the panel depicting the *Martyrdom of St Catherine* (c. 1508, fig. 40), the black line on the upper and lower border ends with the barb, leaving some bare wood visible on the edge of the panel. The black paint covers the wood left and right as far as the edge.⁵² A painting by Rembrandt, produced some 100 years later, may aid an understanding of this phenomenon (fig. 75). *The Artist in His Studio*⁵³ shows a large panel standing on an easel. Grooved battens were temporarily attached to the upper and lower edge in order to stabilise the panel. It could thus be moved safely within the workshop. This assumes that there were similar pieces of squared wood as interim devices to exert a stabilising force used in the Cranach workshop during the early Wittenberg years. It is conceivable that they formed part of the temporary frame used during grounding when the aqueous medium might cause the panel to distort.⁵⁴ It remains to be investigated whether they also served to hold the boards during joining.

69

Detail from **Penance of St Jerome**, 1502 (fig. 81).



70 >

Detail from **Anna Cuspinian**, 1502/03 (fig. 19).



71

Detail from **Holy Family (Rest on the Flight into Egypt)**, 1504 (fig. 176).



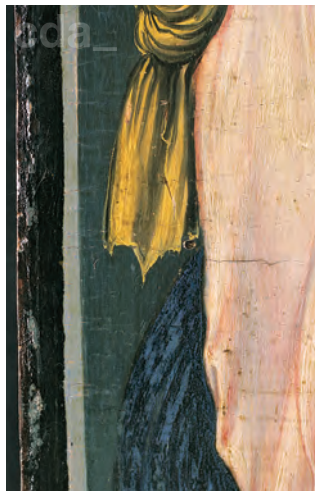
72 >

Lucas Cranach the Elder and workshop, detail from **Martin Luther**, 1534. Private collection.



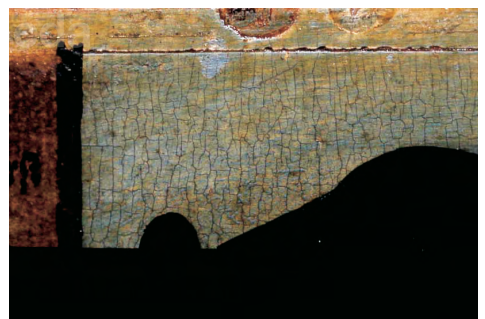
73

Detail from **Altarpiece of the Holy Kinship**, 1509 (fig. 115).



74 >

Detail from **Johann the Steadfast**, 1533 (fig. 102).



75

Rembrandt, detail from **Artist in His Studio**, c.1629. Boston, Museum of Fine Arts.



The small pendant portraits of the electors Friedrich III the Wise and Johann the Steadfast (1532/33) were obviously framed once they had been completed,⁵⁵ as ground and paint layers extend to all four edges of the panel (fig. 102). There are, however, several small, semi-circular areas where the wood has not been covered with ground. These are presumably clip marks (fig. 74). The clips⁵⁶ seem to have been used to fix the panels on a rigid support during a major part of the painting process, right from the beginning of the application of the aqueous ground. The fastening must have been taken off before the ground was fully smoothed: in some of these areas, paint covers the bare wood. Furthermore, the appearance of similar traces on the New York portrait pendants (figs 74, 102) suggests that these clips may have been reused to improve handling of the small panels during the painting process. Here we find these marks also on the preparation layer, but these are not covered with paint.

It is also possible to detect differing routines in the production of retables. The central panel of the *Altarpiece with the Martyrdom of St Catherine* (1506, fig. 77) reveals that the framing was carried out just before the painting was completed. After the central panel had been set in the decorative frame and the

wings had been added, an imbalance of colour in the transition of the central panel and the right-hand wing seems to have become evident; the robe of the figure falling to the ground at the lower edge had been executed in green and red, which clash directly with the green dress worn by St Barbara. Cranach corrected this figure's robe, replacing it with a yellow striped one (fig. 76). This was most likely carried out after framing: whereas the first green/red version of the robe is partly covered by the black painted edge, the yellow version ends with this border. The black paint also covers the bare wood and corrects the irregular course of the barb before the panel was framed.

This survey illustrates that both tradition and innovation characterise the framing practices of Lucas Cranach the Elder. Whereas for several decades, the profiles he had designed himself underwent only minor modifications, more fashionable influences, reversion to more traditional forms and the quest for efficiency led to new solutions and changes in his working practice. The frame was no longer an integral part of the painting as it had been in pan-European medieval panel construction.⁵⁷ It could either be produced at the same time as, or on completion of, a painting, perhaps in accordance with the commissioner's wishes. The use of standard formats and the abandonment of traditional working sequences in the production of supports and frames are closely linked to each other.

76

Altarpiece with the Martyrdom of St Catherine, 1506 (fig. 77). Detail from central panel.

77 (pages 90-91)

Lucas Cranach the Elder and workshop, **Altarpiece with the Martyrdom of St Catherine,** 1506. Central panel, 127 × 140 cm, left shutter 121.3 × 64 cm, right shutter 123.5 × 66.8 cm. Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister.









78

Lucas Cranach the Elder and workshop, **Judgement of Paris**, c.1512/14. Panel, 43 × 32.2 cm. Fort Worth, The Kimbell Art Museum.

The preparatory layers: ground, isolation and *imprimatura*

Examination of the wooden panels from the workshop of Lucas Cranach the Elder has established that substantial preparatory layers were applied in order to produce a sufficiently smooth, adhesive and reflective surface for paint and metal leaf.¹ Following no apparent principle, the ground was applied to either the periphery² or the centre face³ of tangentially cut planks. The obverse side, on which the ground was applied, was usually determined by the various treatments and application of fibrous materials carried out by the carpenter.

White grounds

The ground found most often on Cranach's panels is of white colour⁴ bound with animal glue and contains calcium carbonate as a filler. Only on a few panels⁵ was it possible to detect natural sedimentary chalk, characterised by the presence of coccoliths, the remains of tiny unicellular marine organisms. The absence of such fossil shells in the majority of samples supports the assumption that the source of the finely grained calcium carbonate may have been adequately prepared local limestone.⁶ There is no indication from his invoices that Cranach used different chalks. In 1536, he charged the court for a considerable amount of 'chalk' (*kreiden*) at the relatively low price of 15-17 *groschen* per *zentner* (one Leipzig *zentner* = approximately 51.4 kilograms).⁷ In view of the relatively high cost of transport, it seems unlikely that this material would have been delivered from any great distance.⁸ It remains the task of future research to investigate the different origins and processing of basic materials used in the preparation of panels and thus to draw conclusions about the origin of the ground material used in individual panels.

The chalk ground, which was quite liquid, was applied to untreated or pre-sized panels to form a preparatory layer that varied in thickness, according to artistic purpose. For instance, carved golden haloes called for particularly thick layers of ground (fig. 80). In later years, perhaps due to the high rate of production in the Wittenberg workshop, the panels were sometimes so thinly grounded that traces of tow are visible on the surface, which hampered the production of smooth surfaces. All cross-sections of preparatory layers that have been examined to date suggest that the ground was applied in a few layers without long drying periods between applications.⁹ Cracks in the ground that occurred before the panel was painted¹⁰ (fig. 43) can be detected in X-radiographs of early works and might relate to the presence of moisture during the application of the ground that could have caused the support to swell.¹¹ Inadequate pre-sizing of the wood, an inappropriate concentration of size, or accelerated drying on the surface would have exacerbated the extent of the damage.

79

Portrait of a Man with a Fur Hat, c.1510 (fig. 13). Detail of X-radiograph.



If, while the ground was being applied, the panel was in a frame and subsequently removed after drying, or if the panel shrank as a result of environmental changes, the ground along the borderline between panel and frame would come apart. To prevent an uneven edge, a line would be scratched into the barb with a pointed tool (see p. 86). On the *Fourteen Helpers in Need* (c.1505/07) and the *Neustadt Altarpiece* (1511-13), such lines were scored into the ground while it was still quite soft.¹²

Often blisters are visible in cross-sections and on the surface of the ground. Small white dots appear in the X-radiograph if the partially smoothed cavities are filled with radio-opaque paint (fig. 79). This seems to be an indication that the ground had been smoothed without the surface being wetted again, which is further confirmed by scratch marks that appear lighter and often run equidistant and parallel to each other. These scratch marks were presumably caused by small defects in a blade used for scraping. The *Liber illuministarum* also points out this undesirable phenomenon: 'for scraping, a well-sharpened knife must be used without any notches as the tiniest nick is apparent in the ground' (*zum schaben solten ein ebens wol schneidens messer haben on all schartten dann das clanest schärttel merkt man jm grundt*).¹³

Only in exceptional cases was there deliberate use of a toothed blade to smooth away the ground¹⁴, although a toothed plane was employed on the retable shrines of Neustadt/Orla and Kade, evidently to give a distinctive texture to their backgrounds. By comparison with the model, the brocade and the way it was imitated with tooled gold ground,¹⁵ carved or scored, the texture achieved with a simple toothed blade, imposed limitations on the degree of

realistic representation. Nevertheless this method did save a considerable amount of work. For the Neustadt/Orla and Kade retables, it was apparently neither the intention of Cranach nor the wish of the commissioner that sumptuous textiles should be depicted in a traditional way. To date, we know only of the *Altarpiece of the Virgin* (1518) in Brandenburg Cathedral that has such a carved and gilded background.¹⁶ However, so far there is no conclusive evidence for it being produced in the Wittenberg workshop. There is proof though, that Hans Döring, after he left the Cranach workshop, used this technique on the retable in Nieder-Weidbach.

In Gothic tradition¹⁷ the golden haloes on the panels depicting St Francis and St Valentine (1502/03, fig. 80) form circular lines, incised with dividers and subsequently indented with a gesso hook. About 10 years later, Cranach once again used this technique on the Aschersleben and Kade retables, as well as on the *Virgin and Child with St Anne* (c.1515/16). On the panel *Christ as Saviour* (c.1515/16, fig. 120), separate halo rays have been carved in the chalk ground in the form of shallow hollows.¹⁸ The traditional techniques of tooling the ground with incised or carved patterns apparently suited the wishes of the provincial patrons for whom Cranach worked increasingly after 1510.

80

Detail from **St Valentine and a Kneeling Donor**, c.1502/03 (fig. 33).





Lucas Cranach the Elder,
Penance of St Jerome, 1502.
 Panel, 56 × 41.6 cm. Vienna,
 Kunsthistorisches Museum,
 Gemäldegalerie.

Reddish grounds

A few panels from the years before Cranach was appointed to the court are exceptional in that they were painted on reddish-coloured grounds. *St Jerome* (1502, fig. 81) has a red preparatory layer composed of red lead, lead white and calcium carbonate, and the *Holy Family* (1504) appears to be primed in two layers – white over red lead (figs 71, 176). It is likely that the *Portrait of a Young Lady*, which has a red preparatory layer (red lead, lead white and calcium carbonate bound in oil¹⁹), belongs to the group of portraits painted by Cranach before 1505 (see pp. 303–311).²⁰

The history of coloured grounds and especially their function has been only partly examined. Documentary evidence indicates that red lead in oil was used to preserve the wood²¹ while also levelling the support.²² The Hamburg ‘Glassworkers and Painters’ regulations’ (*Glaswerker-Malerrolle*) of 1461 expressly recommend that, for carvings and panels that are meant to withstand the effects of the weather, the wood be soaked in *oligen mennige* (red lead in oil medium).²³ Until now there have been few published examples of light reddish grounds on panels; these are primarily from northern Europe and northern Italy²⁴ and, although current assumption is based on scant evidence, it seems that reddish grounds were not widespread in either Franconian or Austrian painting of the late fifteenth and early sixteenth century.²⁵ However, Dürer painted the portrait of Oswolt Krel (1499, fig. 271)²⁶ on a reddish mixture of red lead and lead white – the same sort of ground that Cranach used three years later and which remains exceptional within the works of both artists (see p. 317).²⁷ The technical and artistic intentions in the use of coloured grounds require further examination (see *Reddish imprimatura*).

Table 3:
 Preparatory layers on panel
 paintings (c.1500–1504)

	<i>Crucifixion</i> (FR 1)	<i>St Valentine</i> / <i>St Francis</i> (FR 2, 3)	<i>St Jerome</i> (FR 4)	<i>Portraits of</i> <i>Johannes</i> <i>Cuspinian and</i> <i>His Wife Anna</i> (FR 6, 7)	<i>Portraits of</i> <i>a Viennese</i> <i>Scholar and</i> <i>His Wife</i> (FR 8, 9)	<i>Crucifixion</i> (FR 5)	<i>Holy Family</i> (<i>Rest on the Flight</i> <i>into Egypt</i>) (FR 10)
Date	c.1500	c.1502/03	1502	c.1502/03	1503	1503	1504
Ground	white	white	red	white	white	white	red and white
Filler	calcium carbonate	calcium carbonate	red lead, lead white, calcium carbonate	calcium carbonate	calcium carbonate	untested, presumably calcium carbonate	untested, presumably red lead, lead white
Barb	yes	yes	no	yes	yes	yes	no
<i>imprimatura</i>	white	white	none	none	none	reddish	none or white
Composition	lead white	lead white	--	--	--	untested, presumably red lead, lead white	untested

Isolation layers

Cranach modified the surface quality of the smoothed ground with thin intermediate layers. What appears to be an unpigmented isolation layer over the ground was likely applied to reduce absorption. In cross-sections, the upper part of the ground appears to be translucent yellowish to greyish with a yellowish fluorescence in ultraviolet light, suggesting either an oil or oil-resin-based isolation layer or a layer formed by the binding medium from the paint. The *Liber illuministarum* describes an isolation layer involving oil impregnation: 'On a panel one part of which is gilded and another of which will be with oil paints be sure to soak the latter part in oil'.²⁸ Such an unpigmented oil-based isolation layer could be clearly detected on the *Holy Trinity* (c.1515) and the portrait of Christian II of Denmark (1523).²⁹ On other works, evidence of beading of the aqueous underdrawing medium leads to the conclusion that the ground was provided with an oil-based isolation layer before the aqueous layer was applied. Despite repeated assertions of its presence,³⁰ no trace of a glue-size layer could be detected on any of the cross-sections examined. However, isolation with aqueous binding media cannot be ruled out. Passages with subsequent water-gilding or with pigments bound in a glue medium, for instance, could have received an aqueous underlayer prior to painting. The oil penetrating the ground provides for a stable adhesion of the paint film, thus increasing its durability. Lead white, red lead or both may have been added to the oil, as these were thought to accelerate drying. On the X-radiographs of *Johann the Steadfast and Johann Friedrich I* (1509), extremely faint traces of brushwork can be detected bearing no relation to the subject outlines yet there is no evidence of a pigmented intermediate layer in the cross-sections. There seems a fluent transition between what may be an unpigmented isolation layer and the subsequent coating of paint. In cross-sections from the *Neustadt Altarpiece* (1511-13), an isolation layer was observed containing traces of lead white.

We do not know what Cranach called the pigmented intermediate layer. However, Dürer carried out what he termed *unterstreichen* (undercoating) on the *Heller Altarpiece* before proceeding to what he described as *untermalen* (underpainting).³¹ Later the term *Imprimitur* became widely used in German. Here we shall attempt to reclaim the Italian term *imprimatura*. Filarete³², Leonardo³³, Vasari³⁴ and Armenini³⁵ give detailed accounts of the practice during the Renaissance. In the Netherlands, van Mander³⁶ describes the *primu-ersel* through which it was possible to still see the underdrawing.³⁷ Recent research interprets both terms differently with regard to expanse³⁸ and translucency³⁹. The English equivalent *priming* appears to be even less specific in

meaning.⁴⁰ In the context of Cranach, what is meant by *imprimatura* is an overall translucent toning of a ground that has been applied to the whole surface, with the possible exception of passages of water gilding or silvering.

82

Detail from **Martyrdom of St Catherine**, c.1508 (fig. 40).



83 >

Martyrdom of St Catherine, c.1508 (fig. 82). Detail of X-radiograph.



White imprimatura

The use of a white *imprimatura* layer is widespread in medieval panel painting north and south of the Alps⁴¹ and was part of the repertoire of Cranach's contemporaries such as Dürer,⁴² Memling,⁴³ Michelangelo⁴⁴ and Titian⁴⁵ at the beginning of the sixteenth century. A pigmented intermediate layer adjusts the surface properties of the ground and may influence the appearance of the underdrawing. An *imprimatura* that is white increases light reflection of a gesso- or chalk-covered panel.

Early known works by Lucas Cranach the Elder such as the *Crucifixion* (c.1500) and the shutters of a retable depicting St Valentine and St Francis (c.1502/03), have an *imprimatura* containing lead white. For many decades this technique formed part of the Wittenberg workshop practice⁴⁶ (fig. 84). The intermediate layer was usually applied with a broad brush and in large strokes, unrelated to the contours and forms of the painting. The resulting striped texture can be detected in X-radiographs and occasionally it also shows up in raking light

84

Fourteen Helpers in Need,

c.1505/07 (fig. 34). Cross-section

of St Christopher's red robe.

The lowest layer is the chalk

ground, followed by carbon

black from the underdrawing,

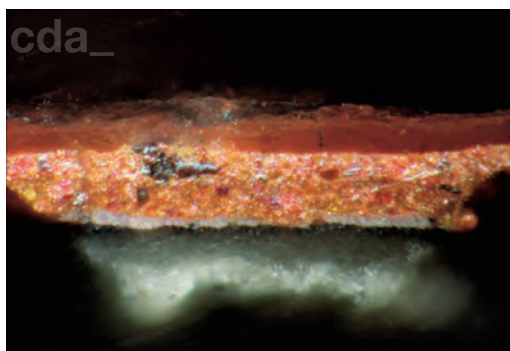
a lead white *imprimatura*,

two undermodelling layers

(containing vermilion, red lead

and red iron oxide) and finally

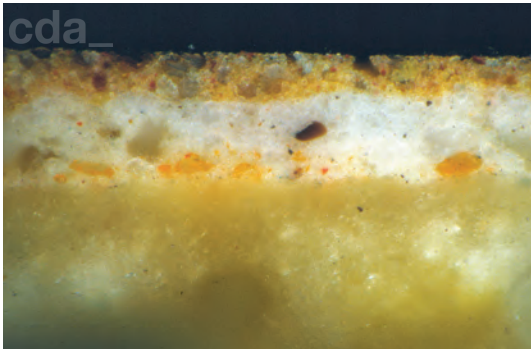
a red glaze.



on the surface of the painting (figs 82, 83). Brushed application of an *imprimatura* modifies the surface structure of the ground and, since no further smoothing was undertaken, it can be assumed that the somewhat rougher ground was not only tolerated but intended. Brushstrokes of a pigmented intermediate layer can also be detected on the surface of paintings by Strigel, Traut, Kulmbach and Baldung Grien⁴⁷. In this respect, their practice differs from Vasari's instructions for the *imprimatura*, which state that it is to be spread evenly by hand.⁴⁸

In works of the first decades of the sixteenth century that have been examined for this study, the *imprimatura* covers the underdrawing, altering its appearance. On the *Altarpiece with the Martyrdom of St Catherine* (1506) a layer of lead white conceals details of form that had been drawn and then rejected. This observation indicates that the isolation of the ground and the application of the *imprimatura* may have been two separate operations and it is, in fact, possible to detect a pigmented intermediate layer solely on the central panel and not on the wings of the Dessau *Princes' Altarpiece* (c.1510). On later works, the *imprimatura* occasionally also serves as a preparatory layer for underdrawings in dry media.⁴⁹

The observation that Cranach covered the ground with a white intermediate layer is not new but it has been interpreted differently in the past. Gronau, for example, assumed the existence of a brown *imprimatura*, wrongly describing it as 'ground' or 'underpainting'.⁵⁰ Sandner and Ritschel⁵¹ as well as Schölzel and Giebe⁵² interpret this phenomenon as a re-working of the panel after grounding. This might have been necessary on the basis of cracks having already formed in the ground and it is correct that on various panels the lead white paint has penetrated the network of cracks (fig. 43). However, since the intermediate layer also appears on other panels that have no such early cracks in their preparation layers, its purpose cannot be solely a remedial one.



85

Martyrdom of St Catherine,
 c.1508 (fig. 40). Cross-section
 of the executioner's garment
 showing the chalk ground,
 a light reddish *imprimatura* of
 lead white and red lead, a light
 grey undermodelling and the
 final paint layer containing lead-
 tin yellow and red iron oxide.

86 >

Lucas Cranach the Elder,
Thief on the Cross, c.1502.
 Paper, 22.6 × 12.1 cm.
 Staatliche Museen zu Berlin,
 Kupferstichkabinett (KdZ 4451).



Light reddish imprimatura

The use of a light red *imprimatura* affects Cranach's painting techniques and is closely connected to the use of coloured grounds. A lightly tinted preparation modifies not only the brilliance of a white ground but also enabled Cranach to vary the optical qualities of a given image. The earliest example of a reddish *imprimatura* was found on the *Crucifixion* (1503, fig. 27).⁵³ X-radiographs reveal that no modelling was achieved with this layer, which, on many of his paintings is a mixture of lead white and red lead (fig. 85). The thickness of the layer and the intensity of the reddish toning can vary in a single work or between individual works.⁵⁴ Often the extreme thinness of the application leads to the conclusion that the intermediate layer could have barely tinted the white ground.⁵⁵ In cross-section, the mixture usually appears light red or pink. When applied to the ground, the oil medium would have altered the refractive index of the calcium carbonate bound in animal glue. The result was likely to be a warm flesh tone and certainly influenced the appearance of the subsequently applied paint.

As far as has been detected, this coloured intermediate layer, like the white *imprimatura*, was used to cover the underdrawing during the first decades of workshop production. In later years, the sequence of application changed. On the portrait of Gregor Brück (1533), the underdrawing in a dry medium⁵⁶ lies on a pink-coloured *imprimatura*. There is an interesting comparison with the early drawings of the *Thief on the Cross* (c.1501/02, fig. 86), executed on light-reddish toned paper;⁵⁷ it suggests a fluent transition between studies and paintings that would have supported Cranach's reputation as a 'quick painter'. The interest in experimenting with different tinted grounds is more evident in his early years, although the often-assumed existence of a brownish *imprimatura* could not be confirmed.⁵⁸

Table 4:
Selected examples
of *imprimatura*

Title	Friedländer, Rosenberg (1978) No.:	Date	<i>Imprimatura</i>
<i>Crucifixion</i>	1	c.1500	thin white
<i>St Valentine / St Francis</i>	2, 3	c.1502/03	white
<i>Portraits of Johannes Cuspinian and His Wife Anna</i>	6, 7	1502/03	none
<i>Crucifixion</i>	5	1503	substantial reddish
<i>Fourteen Helpers in Need</i>	16	c.1505/07	substantial lead white
<i>Altarpiece with the Martyrdom of St Catherine</i>	12-15	1506	lead white
<i>Martyrdom of St Catherine</i>	11	c.1508	substantial pink (lead white, red lead)
<i>Altarpiece of the Holy Kinship (Princes' Altarpiece)</i>	20	c.1510	wings: none centre panel: substantial pink (lead white, red lead)
<i>Portrait of a Man with Fur Hat</i>	59	c.1510	thin white
<i>St Catherine and St Barbara</i>	31	c.1511/12	reddish
<i>Judgement of Paris</i>	41	c.1512/14	pink (lead white, red lead)
<i>Adam and Eve</i>	113	c.1513/15	white
<i>Virgin and Child with Saints</i>	85	1516	none
<i>Christ Taking Leave of His Mother</i>	132	c.1516/20	reddish
<i>Christian II of Denmark</i>	150	1523	none
<i>Gregor Brück</i>	341	1533	reddish

There is limited evidence for the use of reddish *imprimatura* layers before 1500. It has been observed in fourteenth century north German⁵⁹ panel painting as well as on Netherlandish⁶⁰ and Italian pictures⁶¹ from the fifteenth century. From Nuremberg we know the portraits of Barbara and Albrecht Dürer the Elder (c.1490)⁶² attributed to Albrecht Dürer, the *Perkmeister Portrait* (1496) from Michael Wolgemut's workshop⁶³ and Hans Traut's *St Brigitta* (c.1505).⁶⁴ A light reddish *imprimatura* was also confirmed on Dürer's panels *Jesus amongst the Scribes* (1506, fig. 272)⁶⁵ and the portrait of Burkhard von Speyer (1506)⁶⁶. Somewhat later, an unknown Saxon painter⁶⁷ as well as Bartholomäus Bruyn,⁶⁸ Bernhard Strigel,⁶⁹ Hans Holbein the Younger,⁷⁰ John Bettes, Jan Gossaert,⁷¹ Katharina de Hemessen, Bartholomäus Spranger, a Breslau painter, Hans von Aachen,⁷² Franciabigio and Bernardino da Asola⁷³ painted on reddish intermediate layers. In 1587, in his treatise on painting technique, Armenini explicitly describes the flesh tone *imprimatura*.⁷⁴ According to his instructions, it consisted of lead white and a little red in a mixture of linseed oil and resin. The *carnatiachtigh primuersel* mentioned by van Mander (1617) tallies with this description.⁷⁵ Hieronymus Bosch used it in accordance with van Mander's instructions.⁷⁶ Furthermore, we find in fourteenth- and fifteenth-century polychromed sculpture not only the widespread reddish underpainting of flesh tones⁷⁷ but also pink-coloured intermediate layers applied to the whole of the surface.⁷⁸ In other words, even if Cranach experimented with coloured grounds in the early years, he did not 'invent' pink-coloured mixtures of red lead and lead white for this purpose. With all his variants, the painter still operated within the parameters of established workshop traditions. Since Wolgemut as well as Dürer, before his first visit to Italy, occasionally painted on light red grounds and *imprimatura* respectively, it is also difficult to argue a direct link with Italian practice. There is little ground for Koller's assumption⁷⁹ that it was only at the end of the sixteenth century under the influence of Netherlandish Mannerists that painters in Germany applied *imprimatura*.

In view of evidence of its widespread use, Cranach's pink *imprimatura* cannot serve to differentiate between work carried out by the master himself or by his assistants or to date paintings. The court painter also worked quite often without any pigmented *imprimatura* and, in portrait paintings, the first application of light flesh paint seems to take on the function of the *imprimatura*. It remains to be examined to what extent pupils, as they built up their own workshops, adopted these same techniques.⁸⁰



Practices of underdrawing

87

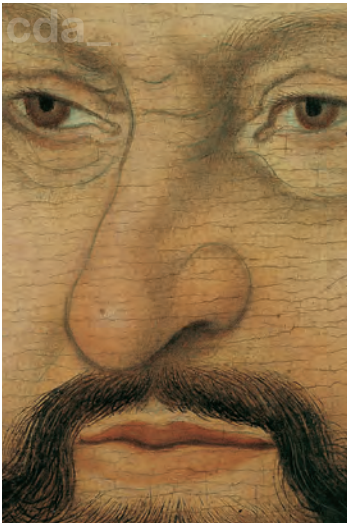
Martyrdom of St Catherine,
c.1508 (fig. 40). Infra-red
reflectogram detail.

The systematic analysis of underdrawings on paintings by Lucas Cranach the Elder has been the subject of a research project led by Sandner.¹ This section provides a summary of important results from the project and it addresses further questions: How was the underdrawing varied according to its function and what is the technical and artistic interdependency of the *imprimatura*, underdrawing and painting process? This examination is less concerned with stylistic differences as with the underdrawing as a component of the whole working process and the layer structure.

Tools and materials

The majority of examined paintings by Cranach the Elder include underdrawings made with a pointed brush and a black pigment in a liquid medium (figs 17, 87, 91, 93). Depending on the format, the artist chose brushes of differing size; on some of the small panels it is difficult to distinguish if the underdrawing is done with a brush or a quill pen (fig. 89).² Sandner assumes the black liquid medium to be drawing ink derived from lamp or candle soot.³ It is however also conceivable that *carlofrahm* (chimney soot) or *kienruß* (pine soot), frequently mentioned in invoices, were used (see pp. 162-163). The instrumental method for the identification of the pigment detected only pure carbon and the binding medium is open to conjecture.⁴ What is visually evident is that, depending on the degree of dilution, the carbon-based ink or paint allowed for modulation from grey to heavy black tones on the white ground.

Comparatively few works are underdrawn with a dry drawing material of grey or black colour. Schade mentions 'black chalk' and 'preparation in a kind of silver-point'.⁵ Gronau⁶ suspects silver-point and Sandner⁷ considers other drawing materials, for instance the lead stylus.⁸ At present, there are no results of instrumental analysis available. Works underdrawn with a dry material include mainly portrait paintings⁹ but also large format panels¹⁰ of the later years. In the portraits, it is sometimes possible to detect very thin lines of underdrawing, which might have been produced with a metal-point or black chalk that deposited a thin pigmented coating on a slightly roughened surface. In other cases, uniform strength and continuous application of the underdrawing medium suggest that tracing may have been used (fig. 88).¹¹ In order to transfer a drawing, the reverse of it or a backing sheet was blackened for example with charcoal dust and then laid over the ground in order to trace the outlines of the drawing with a stylus (see p. 302). In some instances it is difficult to distinguish between traced and drawn lines,¹² all the more so as it is conceivable that traced drawings were reworked with a dry or fluid drawing material.



88
Lucas Cranach the Elder and
workshop, detail from **Elector
Johann the Steadfast**, c.1526.
Weimar, Kunstsammlungen.



89
Detail from **Holy Family (Rest
on the Flight into Egypt)**,
1504 (fig. 176).

Cranach also made underdrawings on panels of differing format and different subjects using finely pointed red chalk.¹³ The number of identified examples is comparatively small - presumably as in these cases infrared reflectography cannot assist identification. In the course of microscopical examinations of the painting's surface, occasionally red pigments have been observed directly on the ground. These observations have given rise to the suggestion that this might be due to the presence of a red chalk underdrawing.¹⁴

There are cases where it has not been possible with infrared reflectography nor microscopical examination to determine the presence of any drawing material, nor to detect any underdrawing.¹⁵ Nevertheless, the lack of any visible traces does not prove that an underdrawing does not exist. To date there has been no Cranach painting identified with traces of any initial sketch in a dry material carried out in advance of the underdrawing executed in a liquid medium with a brush.¹⁶ But just such practices are described in various important treatises on painting, so it is no surprise that Sandner suspects that either charcoal or red chalk was used.¹⁷

Freehand underdrawing

Cranach drew outlines and volumes mostly with relatively short, impulsive, curved strokes (figs 17, 91, 93). Occasionally shadows are indicated by hatching. Washes remain the exception (fig. 91). Violent cascades of lines on the earliest works reflect his extraordinarily dynamic working method. Precision of detail and anatomical accuracy are subordinated to expressiveness and elegance of contour as well as harmony of composition.¹⁸ The underdrawing delineates individual forms without determining conclusively the borders for the application of the paint. Nonetheless, in some of the earliest works the linear underdrawing was integrated efficiently in the painting process. On the *Crucifixion* (c.1500, figs 16, 17), in the red robe of the woman behind the Virgin, the folds modelled in the underdrawing are only covered with thin, translucent layers of paint.¹⁹ More obviously, the drawing forms the shadows of the dress of an angel accompanying the *Holy Family* (1504, fig. 89). Working on the premise that Cranach used a brownish *imprimatura*, Köhler believed that he could detect an unfinished detail in this dress.²⁰ By contrast, examination under the microscope shows clearly that the modelling of the folds was carried out for the most part between the lines of underdrawing. Although it is likely that the layers of paint became more translucent as a result of the ageing process, here the visibility of the graphic design was obviously intended. In these particular cases, Cranach attached an intrinsic and aesthetic quality to his underdrawing worth preserving and consciously incorporated it in the painting. It therefore seems inappropriate to consider the underdrawing only as preparatory aids for the build-up of paint layers.²¹

On the *Crucifixion* of 1503, a few strokes of parallel hatching and washes of diluted ink or paint break up the outlining. Only a few years later, an extensive modelling of the volumes with greyish washes preceded the 'working up' of the *Fourteen Helpers in Need* (1505/07, fig. p. 8, figs 90, 91). Compared to others, this picture is characterised by a particularly fast application of paint. The underdrawing obviously served to shorten the painting process. The white

90

Detail from **Fourteen Helpers in Need**, c.1505/07 (fig. 34).

91 >

Fourteen Helpers in Need, c.1505/07 (fig. 90). Infra-red photograph detail.



imprimatura on top of the drawing smoothes out washes, some strokes of hatching, and the outlines, resulting in a *grisaille*-like undermodelling.²² In comparison to Dürer, Cranach reduced the function of drawing, with a preference for developing volume in paint. On the *Altarpiece with the Martyrdom of St Catherine* (1506), Cranach largely dispensed with the use of hatched shadows or washes in the underdrawing (figs 92, 93),²³ which is extremely economical, especially on the versos of the wings. The reliance on outlines only and a tendency towards simplification are characteristic of the majority of underdrawings of Cranach's Wittenberg years. The underdrawing is now strictly preparatory and limited to essential forms; it is increasingly only auxiliary and no longer incorporated into the painted image.²⁴ Only occasionally, mostly in the case of particular commissions, did Cranach elaborate on the underdrawing by modelling details and volumes. Thus, the finely hatched modelling of St Catherine on the Budapest panel (fig. 87) signifies a new impetus; once again a comparison with Dürer's working method springs to mind (see pp. 315-318). Consequently, in evaluating questions of division of labour and of artistic exchange in a painting, it seems appropriate to take into consideration the reason for the varying degrees of attention that Cranach gives to the detail in his underdrawings.

92

Detail from **Altarpiece with the Martyrdom of St Catherine**, 1506 (fig. 77).



93 >

Altarpiece with the Martyrdom of St Catherine, 1506 (fig. 92). Infra-red reflectogram detail.



While painting the *Altarpiece with the Martyrdom of St Catherine* (1506), Cranach did not appear to consider the underdrawing as definitive. Whereas no important corrections within the drawn composition are discernible, the completed painting differs from it repeatedly, especially on the shutters. The saints' postures and lines of sight have been altered without another discernible level of underdrawing (figs 92, 93). Here the white *imprimatura* apparently served to cover the outlining in black. This might be a reason why in some cases an *imprimatura* was applied and why in others it is absent. Cranach's practice of underdrawing might thus have worked against his concern for rapid production as the greater thickness of *imprimatura* and paint layers needed to cover the underdrawing would require longer drying times. Conversely, economical underdrawing with less covering power would enable paint to be applied more thinly. In fact, by comparison with the Viennese double portraits of 1502/03, some of the early Wittenberg portraits are remarkable as they have both a less elaborate underdrawing and a very thin application of paint. The growing experience as a portrait painter allowed Cranach to do without a composition fully worked out by graphic means; for example, he painted the *Portrait of a Man, Perhaps a Mayor of Weißenfels* (1515, fig. 206) directly on top of a drawing on parchment of the *Translation of St Mary*

Magdalene (see p. 258). Here the painting may well have been executed in the presence of the sitter without an intermediate study on paper. In other cases, painted portrait studies may have reduced the importance of the underdrawing and in serial workshop production an inconspicuous outline was often traced onto the ground (fig. 88).

The best surface for underdrawing with a brush or a quill pen is a carefully smoothed ground, while a rougher surface ensures better abrasion for dry media. This might be the reason why the underdrawing in a finely pointed dry material of the portrait of Gregor Brück (1533) lies on the *imprimatura*. Black chalk allowed for thin lines to be drawn, although their vulnerability to disruption when the paint was applied might have been a disadvantage. Where red chalk was used, it was possible to incorporate it particularly well in flesh paint applied in thin layers.

Technically determined underdrawing

It is possible to distinguish between the underdrawing, which represents a visualisation of the artistic design and a technically determined underdrawing.²⁵ In Cranach's case, these functionally necessary lines are mainly divisions between different passages of paint and between painting and metal leaf lightly scored with a stylus into the ground to indicate where to apply the poliment or mordant (see pp. 117-119). Occasionally there are incised drawings of drapery or other painted details (figs 94, 95). Cranach rarely used incised lines to construct perspectival recession or architecture. In contrast with Dürer, he was not particularly interested in the act of measuring the measurable. On the other hand, incising burnished gold haloes with a pair of dividers was usual. On the panel representing St Valentine (c. 1502/03, fig. 33), the area to be gilded is first mirrored and moved slightly to the right, marked by an incision in the ground. In the X-radiograph this is visible as a fine white line filled with a more absorbent paint. The contour of the face as well as the demarcation of the mitre and the shoulder is indicated with a thin free-hand incision. The delineation of the halo is preceded by several puncture marks and an unsuccessful attempt at incising the semi-circular contour with a pair of dividers. In the end, Cranach altered the composition and, having changed the saint's line of vision, he repeated the incised drawing as the basis for the completed painting. The fact that the halo and the contour of the face were at first marked as a mirror image merits closer examination, as it seems to provide information about the working process. It allows the assumption that there may have been an initial drawing preceding the one done with the brush. It is possible that the first incised drawing was carried out on the basis



94
Detail from **Fourteen Helpers
in Need**, c.1505/07 (fig. 34).

95 >
Detail from **Fourteen Helpers
in Need**, c.1505/07 (fig. 34).



of a design the material of which is no longer discernible. As the incised drawing is clearly preserved in its entirety, it seems unlikely that the initial sketch was erased by scraping off the ground again. The first design must have been more or less complete since, with the incision, first preparations for gilding were made. The repeated attempts to position the pair of dividers confirm this assertion. The mirrored repetition of the incised drawing and the possible use of technical aids will be dealt with in chapter V *Portrait study and portrait painting*.

To expand on the previous section, it might be considered that the underdrawing revealed by infrared reflectography does not necessarily have to be Cranach's first or initial artistic design on the painting's support. The black brush drawing could have been preceded by a rough sketch or by a more detailed drawing. This might explain the observation that there are rarely any corrections in Cranach's brush underdrawings.

In line with the instructions in the *Liber illuministarum*: 'If you wish to gild one section of a panel but not another, first incise, then apply the brown-red afterwards'²⁶ Cranach or an assistant scored contours of larger areas to be gilded in the ground with a stylus, in order not to lose them when poliment and metal leaf were applied. Examples of such demarcated areas for gilded backgrounds are preserved in the *Holy Trinity* (c.1515), the *Virgin on a Crescent Moon* (c.1516) and the *Prague Altarpiece* (c.1520). Also in the case of the latter work, even the rays of the halo, formed with punched stippling, were initially marked by incised lines into the ground.²⁷

The practices varied in the case of matt gilding. On the panel depicting the *Fourteen Helpers in Need* (c.1505/07, fig. 34), the areas that were to be mordant gilded were outlined with a stylus before the white *imprimatura* was applied. Several details of drapery are also marked under the gold (fig. 94). However, when applying red-brown glazes on the gilding to model the shadows, Cranach largely ignored the incisions. It was not even necessary to mark the outline for this gilding technique, since the mordant could be applied exactly to the designated areas and thus adhesion could be restricted to these surfaces. Thus, the spandrels on the verso of the panel with the *Fourteen Helpers in Need* are no longer delineated with incisions; additionally, on the shutters of the *Altarpiece with the Martyrdom of St Catherine* (1506, fig. 77), the matt gilding is not preceded by any incisions. On works such as the *Martyrdom of St Catherine* (c.1508, fig. 40) and the *Duke Heinrich the Devout of Saxony and the Duchess Katharina of Mecklenburg* (1514, fig. 68), the application of leaf metal was integrated into the painting process so that the purpose of the incised drawing became redundant.

Occasionally, Cranach outlined circular features with a pair of compasses. On the *Martyrdom of St Catherine* (c.1508) he scratched the contours of the shattered cartwheel in the ground with a pair of dividers. The semi-circular stone arch on the *Holy Kinship* (c.1510/12) was incised with the same instrument.²⁸ On the X-radiographs, these marks show up lighter as the depressions are filled with X-ray absorbent paint. By contrast, the main lines of the architecture often appear dark, which indicate that they have been ruled and incised during the painting process, most probably with a metal stylus. Both types of incised drawing can be found on various panels. On the *Holy Kinship*, the area of the bench behind the Virgin clearly shows that the paint for the floor was first applied generously and the border line then drawn in the paint with a metal stylus, while finally the light edge of the seat was modelled with paint along this demarcation. The depiction of the architecture in perspective on the central panel of the *Altarpiece of the Holy Kinship* (1509, fig. 115), although carried out using a vanishing point, has not been laid out by incisions. Only after the light-coloured paint for the tiles had been applied to the whole area were the edges of the slabs and the architectural features picked out with a stylus. The term ‘technically determined underdrawing’ as a description for scratching that is incorporated into the painting process is not appropriate. It is more accurately referred to as incised contour drawing, and is one of Cranach’s frequently applied working techniques. As early on as the *Crucifixion* of c.1500, the long stick held by a soldier was aligned with a stylus and ruler during the process of painting. The same method was employed on the *Altarpiece with the Martyrdom of St Catherine* in 1506 and in 1515 on the *Diptych of St Jerome and St Leopold*. Finally, in this context it is appropriate to mention the use of incisions also as guidelines for inscriptions, which can be clearly detected even by the naked eye on the *Prague Altarpiece* (figs 227, 228).

This examination offers proof that Cranach varied his practice of underdrawing not only in relation to its function in designing the composition and to the commission, but also in relation to its precise purpose within the painting process. There is a fluent transition between various forms of underdrawing and incised drawing executed during painting, which – once more is known – might further help to determine the period of production and/or aid in the authentication of individual paintings.



Applications of gold, silver and paper

96

Detail from **Anna Cuspinian**,
1502/03 (fig. 19).

For about two decades, up until the early 1520s, gilded surfaces formed an important part of Cranach's compositions. Later, gold leaf remained the preferred material for the decoration of frames.¹ The amount of gilding, its meaning and the techniques of application all developed rather unevenly, depending on commissions. Whereas in the first decade of the sixteenth century the precious metal was commonly applied to his altarpieces, individual panels and portraits, after *c.*1510 its use is restricted mostly to retables. Traditionally, gold served to enhance haloes (figs 97, 98, 101). Occasionally Cranach reverted to the gilded background that was typical of late medieval painting. However, he predominantly used gilding to heighten the illusionistic effect and precious nature of metal objects, such as crowns, wire caps, jewellery, ornamental hinges, buttons, imperial orbs and goblets. In addition, coats of arms, liturgical paraphernalia, weapons and bridles were gilded (fig. 95). Similarly, the traditional technique of depicting silk brocades and borders embroidered with gold threads with paint on metal leaf was applied in the Cranach workshop. Very rarely did gold serve to depict candlelight or reflections. Drawing on Gothic tracery and referring to polychromed frames, it fulfilled more of a decorative purpose, filling in spandrels or laying in garlands of foliage and fruit as well as enhancing inscriptions. Silver, in accordance with its lower value and lesser stability, was given only a subordinate significance in Cranach's panel painting. It was used relatively infrequently to decorate coats of arms, fabrics or crescent moons and occasionally using *zwischengold*, that is, a metal leaf consisting of laminated gold and silver.

Gold leaf

Cranach's detailed accounts provide us with information about the quality, price, amount and sources of gold leaf. In 1505, the painter received 'four books of fine gold and one book of silver' (app. II, 4) from the *Michelsmarkt* in Leipzig. In 1509, gold and silver coins were taken for him by the Wittenberg court to the goldbeater in Leipzig,² which was presumably a usual practice, as Elector Friedrich III the Wise also sent *gulden* from Hungary and the Rhineland to the goldsmiths for them to be made into jewellery.³ Later, Cranach bought metal leaf directly from goldbeaters in Leipzig (app. II, 197, 205 et al.). Over the years, various masters worked in this city: Caspar Hinkisch in 1504,⁴ Heydin, a woman goldbeater, in 1517, and Bartholomäus Meyer in 1519.⁵ By 1529, there were at least two goldbeaters in Leipzig⁶ and in 1536, Cranach accepted a delivery of gold from Wolfin Brennsdorff⁷ and Caspar Goltschlahen (app. II, 197). Almost without exception the quality of the gold

is described as fine gold (*feingolt*, app. II, 138, 169 et al.). In the 1540s, Hungarian gold was specified (app. II, 253); it was particularly popular because of its highly refined content.⁸ The lawful standard of the Hungarian gold ducat was approximately 23.3 carat gold, called *aurum finum* (fine gold).⁹ The less valuable *Rheinisch floren* had approximately 18 carat gold. Analyses prove that the metal used by Cranach was usually reasonably pure, with silver and copper detectable as only minor impurities.¹⁰

Cranach usually invoiced gold per 'book' (*buch*), only occasionally charging smaller amounts per leaf. A book contained 300 leaves,¹¹ a norm which still applies today for Austrian and German manufacturers.¹² As far as can be ascertained, the gold leaf was cut in a square shape. The leaves applied to the *Duke Heinrich the Devout of Saxony and the Duchess Katharina of Mecklenburg* (1514), the *Holy Trinity* (1515) and the *Altarpiece of the Virgin* in the Brandenburg Cathedral (1518) measure 9.5-10 centimetres in side length. On other paintings the largest leaves measure between 8.5 and 9.3 centimetres.¹³ Altogether, about 150 books of gold are itemised in the invoices, which are very incomplete. If it is presumed that one book contained 300 leaves, each approximately 100 centimetres square in size,¹⁴ then the amount of gold leaf invoiced represents an area of about 450 square metres. However, only a fraction of this quantity of gold leaf was applied in the workshop onto paintings and their frames; the majority of it was used to decorate the castle interior and exterior. A large number of both small and large 'knobs' (*knäufe*), 'rosettes' (*rosen*), and 'suns' (*sonnen*) had gold leaf applied to them. In addition, Cranach's assistants gilded coats of arms, inscriptions, banners, shields and a sleigh. The bulk of the precious metal itemised in the preserved invoices was applied during the years when this technique on paintings had long since gone out of fashion (cf. app. II).

The purchase price for a book of refined gold changed only slightly between 1505 and 1545. In 1505, Cranach paid a little less than four *gulden* (app. II, 4), in 1509 exactly four *gulden* (app. II, 37) and in the 1530s and 1540s, repeatedly four *gulden* for a book (app. II, 197, 207, 272 et al.).¹⁵ Further research is necessary to establish if there were changes in the size and thickness of the leaf.¹⁶ The gold on several panels such as the *Portrait of the Wife of a Viennese Scholar* (1503), the *Fourteen Helpers in Need* (c.1505/07) and the *Holy Trinity* (c.1515) was beaten to a thickness of approximately 500 nanometres (that is, 0.0005 millimetres).¹⁷ By comparison, the usual thickness for most gold leaf today is between 100 and 125 nanometres.¹⁸

97

Detail from **St Francis
Receiving the Stigmata**,
c.1502/03 (fig. 32).



98 >

Lucas Cranach the Elder
and workshop, detail from
Resurrection, c.1509.
Kassel, Staatliche Museen,
Gemäldegalerie Alte Meister.



Burnished gilding

Water-gilding or burnished gilding can be distinguished from mordant or unburnished gilding by the technique used to apply the gold leaf.¹⁹ In the case of burnished gilding, the ground is prepared with thin layers of poliment, usually a slightly greasy red-brown clay (bole). It provides a smooth cushioned surface on which the gold leaf can be burnished either with a stone or a tooth.²⁰ The reddish-brown poliment investigated on Cranach's paintings appears to consist of an iron oxide-containing material of this type, although bole need not necessarily have been used.²¹ The instructions for payment examined make no mention of this specific term or of red earth pigments,²² but do mention a *polermennig zum gold* with no further explanation (app. II, 220).²³

The leaf was, if necessary, cut to size and then laid on the red poliment, whereby the sheets regularly overlap. These overlaps usually become visible during burnishing or in the course of time. Cranach employed this effect on the *Prague Altarpiece* (c.1520) to represent the aureole, where the pieces of gold were cut to a width of only about 3 centimetres and were laid on the moistened ground next to each other and burnished in such a way that the area of overlap forms rays with its intensive golden gleam.

The period during which Cranach used burnished gilding on paintings stretches from the early works into the 1520s. In a traditional manner, the haloes of the two saints Valentine and Francis from about 1502/03 were decorated with burnished gold leaf (figs 80, 97). The *Holy Trinity*, commissioned around 1515 by the Leipzig Archers' Guild, is the first preserved panel in which burnished gold leaf was applied to decorate the background. Next come several works with either (and in some cases, both) burnished gold haloes²⁴ or gilded backgrounds²⁵. About 15 years after the artist had painted some of the first portraits set in a landscape, he went back to water-gilding to decorate complete backgrounds in a rather Gothic style. Thus, the elongated figures on very narrow high format panels go with a reversion to traditional techniques. Cranach seems to flaunt an abundance of gold leaf just before its application went out of fashion.

In order to break up the uniform light reflection of the metal surface and to distinguish haloes from gilded backgrounds, the surface was usually tooled with incised lines and punched patterns. On the *Holy Trinity* (c.1515), the *Virgin on a Crescent Moon Adored by Friedrich III the Wise* (c.1516) and the *Prague Altarpiece* (c.1520), the artist used only a simple punch, the pin punch, which gives a round dot. Its measure at the tip is 2.5 millimetres.²⁶ Whereas on many late medieval panels the metal was tooled for decoration before the painting process began, some of the punched lines on the panel of the *Holy Trinity* have been indented into the paint layer that partly covers the gold leaf. Also, after the application of paint, a diamond-shaped pattern was worked into the gilded surface with a star-shaped serrated wheel. By comparison with punch indentations, the wheel produces more uniform lines of dots, the distance between which constantly measures about five-and-a-half impressions per centimetre. Whereas punch indentations applied with a wheel can be found on a considerable number of late medieval paintings, its use in the Wittenberg workshop is restricted to a very small number of panels.²⁷ On the *Prague Altarpiece*, the *Virgin on a Crescent Moon Adored by Friedrich III the Wise* and the *Virgin Standing on a Crescent Moon* (Sup 6H), the decoration was carried out exclusively using a single punch.

Matt gilding

Unburnished mordant gilding is by far the most frequently practised gilding technique between 1502/03 and the 1520s. The extent to which it was used varied from work to work. Matt gilding complements the range of colours on the panel with the *Fourteen Helpers in Need* (c.1505/07, fig. 34) and the *Duke Heinrich the Devout of Saxony and the Duchess Katharina of Mecklenburg* (1514,

fig. 68). In comparison, the matt gilding on the *Altarpiece of the Holy Kinship* (1509, fig. 115) is barely visible – it depicts only halo rays. Whereas for technical reasons burnished gilding had to take place, without exception, before paint was applied, matt gilding allowed the painter extended creative possibilities and greater flexibility in the sequence of work. The mordant, which, theoretically, can be any substance to which metal leaf will adhere, is painted in larger areas in lines or patterns and, when it is almost dry but still slightly tacky, pieces of gold leaf are applied.²⁸ In Cranach's workshop, the sequence of painting and mordant gilding varied within a single painting and from one work to the next. The matt gilding was carried out before, during and after the painting process. On the triptych with the *Resurrection* (c.1509), the robes of the saints have been gilded before paint was applied, whereas the rays of the haloes are on top of the background paint (fig. 98). Here, small pieces of gold leaf apparently stuck not only to the rays drawn with mordant but also across the whole surface so that they subsequently had to be covered once again with paint. Accordingly, matt gilding of larger passages was mostly carried out before the first application of paint and graphic details were added in the course, or at the end, of the painting process. However, on the *Martyrdom of St Catherine* (c.1508), a garment was completely gilded after it had been completed in paint (figs 183, 184). The life-size portrait of Duke Heinrich the Devout of Saxony (1514, fig. 68) was to a large extent painted before parts of the extraordinary dress were gilded and then completed. The companion portrait of the Duchess Katharina of Mecklenburg was worked up in the opposite sequence: the flesh tones were modelled after the dress had been decorated with gold and silver leaf. It might be that Cranach started painting the portrait of the duke while another workshop member gilded the other large panel. Cranach only rarely played off the charming contrast between burnished and matt gilding. Examples are the *Saviour* (c.1515/16, fig. 120) and the *Virgin and Child with St Anne* (c.1515/16).²⁹ Most likely he used mordant gilding here not only for technical reasons or economy of effort, but also for variety of effect.

'Goltfarb'

All mordants investigated so far contain oil and some resin but other adhesive media (e.g. glues) cannot as yet be discounted. The addition of pigments to the mordant varies from panel to panel and occasionally even within a single work. On the *Portrait of a Viennese Scholar* (1503, fig. 181) the rings, buttons and the book clasps are gilded on an ochre-coloured adhesive.³⁰ By contrast, the inscription *1503 VIXI. AN. 41* has been executed in bright yellow paint, presumably containing lead-tin yellow, before being covered with gold leaf. On the *Fourteen Helpers in Need* (1505/07), the adhesive is a drying oil contain-

ing lead white, lead-tin yellow, chalk, ochre, copper green and vermilion. The mordant on the *Altarpiece with the Martyrdom of St Catherine* (1506) reveals elements of lead white, red lead, ochre and black.³¹ The medium for gilding robes, goblet and haloes on the small winged retable with the *Resurrection* (c.1509) is practically colourless, whereas the metal leaf for the coats of arms on the outer faces of the wings is applied over a light red paint. On the *Princes' Altarpiece* (c.1510) a white and brown mordant was found. This considerable degree of variation lead to the conclusion that pigments containing lead consistently were added to the oil in an effort to foster drying, but neither the proportion of binding medium to pigment nor the tinting seems to have followed a regular workshop practice, nor was a uniform recipe recorded, such as that in the Tegernsee Manuscript.³² Perhaps Cranach was sometimes using the accumulated unused remains of paint on the palette and from the cleaning of brushes and palettes as a basis for mordants.³³ Evidence for this hypothesis is the fact that the number of different pigments in the adhesive usually exceeds that in other mixtures of paint of almost the same colour.

Only once, in 1538, did Cranach charge four *groschen* 'für die goldfarb' (app. II, 239). As the weight or the amount of *goldfarb* is not specified, no value can be attributed to this material. Fifteenth- and sixteenth-century German treatises use the term *goldfarb* (gold colour) to refer to, among other things, different mordants, yellow paint, yellow-tinted lacquers and mosaic gold (SnS₄).³⁴ Because of this, it is impossible to further narrow down the composition and use of the *goldfarb* invoiced by Cranach.

Already in his earliest works, Cranach depicted precious stones by applying red, green or blue semi-transparent paint over gold leaf (fig. 96). Due to the transparency of the glaze, they acquire a particular depth and brilliance.³⁵ On the *Fourteen Helpers in Need* (c.1505/07), he gave spatial effect to the metal leaf by extensive red-brown glazing (figs 34, 187). He might have followed the instruction of the Tegernsee Manuscript on how to make *golt praun* with *paris rot*.³⁶ Depending on the intended effect, Cranach used black, green or brown to create an illusion of brocade, candle flame, dragons' eyes, wire cap, imperial orbs or precious stones (fig. 95). He manipulated the contrast between opaque and translucent paint and varied the application of glazes to large areas, sometimes smudging it with his fingers or in other cases drawing ornaments with a fine-pointed brush. Cranach was a master in the use of glazes and knew how to create shimmering metal effects with great brilliance to achieve a powerful impact. By contrast, the *Altarpiece with the Martyrdom of St Catherine* from 1506 (fig. 77) suggests that at the time, he preferred, in accordance with Alberti's writings,³⁷ the refinement of skilful painting to that of precious material. There seems to be no other explanation for the fact that

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Detail from **Altarpiece
of the Holy Kinship**, 1509
(fig. 115).



he only gilded the costumes of the saints on the outer faces of the wings of this altarpiece, while using refined painting techniques on the inside; this is a reversal of the principle of the precious material being reserved for the inner faces of the altarpiece, shown on feast days only. However, on the *Martyrdom of St Catherine* (c.1508, figs 183, 184) the garments were again gilded and painted in a particularly refined manner. The use of gold and paint alternates again and again. For example, the rays of the haloes on the *Martyrdom of St Catherine* (c.1508, fig. 171), the *Holy Kinship* (c.1509/10) and the *Princes' Altarpiece* (c.1510) are depicted with paint, while those on the *Resurrection* (c.1509, fig. 98) and the *Altarpiece of the Holy Kinship* (1509), which were painted almost contemporaneously, are mordant gilded, without it being possible to infer whether they were executed by Cranach himself or by a workshop assistant. Occasionally, he engages in the dichotomy between the quality of material and the quality of technique (fig. 99)³⁸ even within one panel. The Karlsruhe *Virgin* (c.1516) stands before a burnished gold ground while Elector Friedrich III the Wise is depicted adoring her in front of a gold brocade curtain painted with yellow paint. On the *Virgin Standing on a Crescent Moon*, in Aschaffenburg (FR Sup 13), which was executed by one of Cranach's pupils, the background is rendered with yellow paint and the aureole with gold leaf.

Zwischgold

To produce the so-called *zwischgold* (a gold-silver laminate), a very thin gold leaf and a silver leaf were beaten together. Cranach seldom invoiced for *zwcwischs golt*³⁹ – there is evidence of no more than five-and-a-half books. Its use is specified in one instance for panelling work (*brust tefel in die kalaunen*). At the price of one *gulden* and 15 *groschen* in 1509 (app. II, 37) and one-and-a-half *gulden* in 1537 (app. II, 227), a book of *zwischgold* cost clearly less than half the price that the court painter charged for gold leaf. Disadvantages were to be expected for the lower price: such thin gold foil could not permanently prevent the underlying silver from converting into brown-black silver sulphide. For this reason, some guild ordinances (Munich, 1461; Hamburg, 1488; and Lüneburg, 1497) forbade the practice of improvising with *zwischgold* when gold was the specified material.⁴⁰ It was frequently used in a subordinate role or, for example, on relief brocades, under a protective coating of tinted lacquer.⁴¹ In comparison with gold, *zwischgold* has a somewhat lighter shade because of its base of silver. This tonal difference might explain why Cranach occasionally chose it. On the *Altarpiece of the Virgin* (c.1515/20) in Aschersleben he covered the background and the haloes with gold leaf, while using *zwischgold*⁴² for the crescent moon and the Virgin's shoe (red poliment serves as a preparatory layer and adhesive for both metals). On the panels

with the *Virgin and Child with St Anne* (c.1515/16) and the *Saviour* (c.1515/16, fig. 120), haloes have been depicted with burnished gold and borders of robes fashioned with *zwischengold* on a light-red mordant (in the case of the latter panel, a mixture of red lead, lead-tin yellow, iron oxide red and calcium salts). Obviously *zwischengold* served not only as a cheaper substitute material. The *Ortenberg Altarpiece*⁴³ (c.1420) is early evidence that the enriching of the colour effect with the use of differently shaded metal leaves was no exception in German panel painting.

Powdered gold

The application of powdered gold was one of the most seldom and at the same time the longest-used techniques of the Cranach workshop. We find it both on the *Crucifixion* of c.1500 as well as on the *Crucifixion* (FR 377A)⁴⁴ painted some 40 years later. Powdered gold is not mentioned in any of the documents examined so far. It may have been produced in the painter's workshop itself. *Gemalen gold*, according to Boltz von Ruffach,⁴⁵ is simply gold leaf ground to a powder. This is applied to the paint surface with a medium such as a gum or egg white.⁴⁶ Often it is called 'shell gold' because it was kept, bound in a gum, in a mussel shell. Under the microscope it appears as small, irregular, flat flakes. The use of powdered gold was known to German illuminators as early as the eleventh century⁴⁷, and in Italy it had already been used, for instance, on the San Pier Maggiore Altarpiece by Jacopo di Cione

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Detail from **Duchess
Katharina of Mecklenburg,
Spouse of Duke Heinrich
the Devout of Saxony**, 1514
(fig. 68).



101 >

Detail from **Holy Family (Rest
on the Flight into Egypt)**,
1504 (fig. 176).



from 1370/71.⁴⁸ It was used most effectively on northern Italian⁴⁹ and Cologne paintings⁵⁰ in the fifteenth century. Following this tradition, Cranach used shell gold on his first known painting, the Vienna *Crucifixion* (c.1500), to paint radial haloes, embroidered edges and bridles. On the *Holy Family* (1504) there are haloes (fig. 101) and delicate shot effects in draperies and on the angels' wings. On none of the panels painted later is powdered gold deployed in a similarly subtle way. In the first years in Wittenberg, the painter seems to have made no use of powdered gold; but as of 1510/11, it is occasionally encountered, for example on the shutter paintings *St Catherine and St Barbara* (c.1511/12) and on the *Virgin and Child* (c.1512/14, FR 38) for thinly lined haloes, hairnet and embroidery edges.

Silver and silver-coloured metal leaf

Silver leaf was another alternative to gold and *zwichgold*. Despite its well-known propensity to tarnish, silver leaf was valued for its intrinsic decorative qualities. It is often found in Gothic panel painting as the basis for yellow-tinted or other coloured glazes. In Cranach's invoices, it mostly appears along with gold leaf, although in smaller amounts (app. II, 4, 37, 167). In 1509, one book of silver cost 12 *groschen*, that is to say, one-seventh of the price of a book of gold leaf and one-third the price of a book of *zwichgold*.⁵¹

Since tin tarnishes less rapidly than silver, it was natural to use tin instead. Tin was expressly recommended by Cennini⁵² and tin foil is mentioned relatively frequently in medieval painters' manuals.⁵³ However, it is not alluded to in any of Cranach's invoices that have, as yet, been investigated. Just one invoice for a slate roofer in connection with the building of the castle and church at Torgau during the years 1543/45 quotes, together with different pigments: '21 *gulden* 10 *groschen* 10 *denaren* for 85 leaves of tin (*staniol*), 10 leaves per *gulden*' (app. II, 259). In this instance, one leaf of *staniol* cost roughly seven-and-a-half times the price of a leaf of gold. However, since there is no information as to the size and the thickness of the material, the leaves could have been much larger and heavier, which was to be expected when used in the context of a roof.

The listing of silver leaf in the electoral accounts is an indication of its use on Cranach's panel paintings: on the paintings investigated, silver-coloured metal leaf always appears combined with gold and not much more frequently than *zwichgold*. It was not possible in the course of this research to scientifically identify whether silver or tin leaf was being used on the paintings.

The earliest appearance of a metal leaf of silver colour on a Cranach painting is on the *Resurrection* triptych (c.1509). On the outer faces of the wings it serves to fashion the coats of arms of Landgrave Wilhelm II of Hesse and his

wife, Anna of Mecklenburg (fig. 186). The materials and techniques used to carry out this task are particularly diverse: background and details are alternately gilded or ‘silvered’, with metal leaf. The heraldic motives have been painted in white, red, brown, blue and black or modelled by covering the metal leaf background surrounding them. On the portrait of the Duchess Katharina of Mecklenburg (1514), painted a few years afterwards, the use of gold leaf dominates. Only a few details such as parts of the cap (fig. 100) and a ribbon around the hips are laid on with the silvery metal leaf covered partially by red glazes and by ornamental drawing in white.

The Frankfurt *Virgin* (c.1515/20, FR Sup6H) and the *Virgin* on a large altarpiece with shutters in London (c.1520, FR Sup1C) are standing on silver-coloured crescent moons. Again the techniques differ: on the portrait of the Duchess Katharina there is mordant ‘silvering’, while on the Frankfurt *Virgin* it is poliment-‘silvering’. The rainsill bases of the frames of the *Neustadt Altarpiece* (1511-13), the *Zwickau Altarpiece* (c.1518) and the *Crucifixion* in Mahlis (c.1520/30) are embellished with metal foil of the same colour (fig. 55). We find the most extensive use on polychromies, that is, on the retables in Neustadt/Orla (fig. 215) and Kade (c.1513/20). Here, the silver-coloured objects are represented with silver-coloured metal leaf, which appear on the investigated panel paintings to be depicted instead with varying shades of grey paint.

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Lucas Cranach the Elder and workshop, **Electeur Friedrich III the Wise and Elector Johann the Steadfast**, 1533. Panels, each 20.3 × 14.3 cm. New York, The Metropolitan Museum of Art.



Paper

Another feature, often used for application on paintings and frames during the late Middle Ages, were small round tiles, punched out of gilded parchment or paper and glued to the paint layer.⁵⁴ On the altarpieces in Kade and Brandenburg the painters applied them to polychrome sculptures, but there are no examples known on Cranach's panel paintings. The most likely reason for applying paper to panel paintings would be to link text and image and to improve serial production. Traditionally, inscriptions were carried out using brush and paint on completion of the painting process. However, paper carrying printed texts was glued onto some of Cranach's paintings from the 1530s and 1540s before the paint was applied. Amongst these were double portraits of both electors, Friedrich III the Wise and Johann the Steadfast (fig. 102), produced in 1532 and 1533 and to which a payment of 109 *gulden* and 14 *gro-schen* on 10 May 1533 refers: '60 pairs of small panels on which both electors are painted in praise and blessed memory' (app. II, 171).⁵⁵ The poems praise the electors' activity during their reign. Occasionally the inscriptions are complemented by printed nameplates. On the reverse of some of these panels, woodcuts of coats of arms from the *Heiltumsbuch* have been preserved.⁵⁶ The link between portrait and text follows earlier examples⁵⁷ and can be compared to the propaganda purpose of, for instance, Roman monuments.⁵⁸ The Hamburg Electors' triptych (c.1535) belongs in this category. On its centre panel and the left wing that represent the electors Friedrich and Johann, there are several pieces of paper covering more than one-third of the panel's surface. On the Nuremberg variant the panegyrics were glued to the versos of both the outer portraits.⁵⁹

Although Cranach introduced and applied printed inscriptions first onto some portraits, this form of collage found its way also into paintings with other subjects as well. In the *Allegory of Redemption* (c.1535/40), he elucidated the vivid motifs with extensive biblical quotations and thus succeeded in faithfully illustrating the central ideas of Luther's theology of redemption, producing the most significant Protestant mnemonic and didactic picture.⁶⁰ On the Nuremberg variant the biblical texts, as a result of a change of plan during the painting process, seem to have been covered again with paint.⁶¹ However, in the lower boundary of the painted stone parapet with its marble sections, due to the increased transparency of the aged paint layer, the texts today can be read in parts with the naked eye. Later examples are *St John the Baptist Preaching* (1549), on which two bible quotations printed on paper elucidate the theme, and a portrait of Martin Luther⁶² from the workshop of Lucas Cranach the Younger where a balustrade carries a Latin inscription on paper.

With the application of gold leaf, *zwischengold*, powdered gold, silver-coloured metal foils and printed paper, Lucas Cranach the Elder made exhaustive use of a broad spectrum of decorative possibilities. Examples of applied relief gilding have not survived from his workshop; instead of engraved gilded backgrounds, he preferred freely drawn textile decorations. The different material qualities of gold, the manifold ways to use paint to change or imitate it, and the ways to influence the reflective qualities of laid-on gold and other metal leaf by burnishing and glazing must have fascinated the painter as well as his commissioners. Otherwise, there is no explanation for its multifarious use in the panel paintings or for his experiments with 'gold prints', which began around 1507.⁶³ Between 1515 and 1520, when producing retables for numerous town and village churches, he reverted to traditional burnished gilding and gold backgrounds. Apparently many commissioners outside the court demanded not only traditional subject matters but also conventional use of materials. It is therefore striking that these techniques were banished abruptly from his repertoire in the early 1520s. Most probably, Cranach was influenced in his choice of materials and techniques by the new body of religious thought forwarded by the Reformation. The first portrait of Luther was painted in 1520. Early in 1521, Cranach was busy with the preparation of the *Passional Christi et Antichristi*, the first and most vehement polemic of the Reformation⁶⁴. At the same time workshop assistants were, once again, carrying out extensive burnished gilding on the *Altarpiece of the Virgin Glorified*, which was presumably created for the cathedral in Prague.⁶⁵ Subsequently, however, Cranach's use of metal leaf on paintings came almost to an end. As the preserved works for the Stiftskirche at Halle/Saale prove, he even dispensed with the use of gold on retables for opponents of the Reformation such as Cardinal Albrecht of Brandenburg.⁶⁶ In this, his practice contrasts to Grünewald who, when producing the *Erasmus-Maurice-Panel* (c.1520/22)⁶⁷ for the same commissioner, Cardinal Albrecht of Brandenburg, at the same location, the Stiftskirche at Halle/Saale, exploited the entire gamut of decorative techniques, including metal leaf. In the decades to come, Cranach's Wittenberg workshop restricted the use of gold leaf mainly to the polychromy of architecture. When in 1532 Melanchthon⁶⁸ described Cranach's works as 'pure in their simplicity' (*schlicht*), compared to those by Dürer and Grünewald, he was expressing not only a difference in significance and quality, but, at the same time, commenting on the use of materials: during this period Cranach was both increasing the intensity of pictorial statements in favour of the Reformation's religious conception and thought, as well as increasing his works' pertinence and efficiency by incorporating relevant texts printed on paper onto the pictures, in conscious disregard of artistic bravery and precious material, and even at the expense of the virtuosity of his brush.

26
 Gemeine Prusgarbe
 Maler

e aij d fi j la lach
 ij gij fi j th silblau
 i gij ee d fi j th ee th blau neu
 i f d i j th m d j ff j ee
 i gij ee a e d fi j th ee la
 i la silblau udo m d j ff j
 i gij ee d fi j th ee la p f l e t
 blin f l e t udo t o m d j ee
 ee a ee d fi j th ee la affe l l e n
 ee th m d j ee
 ee a ee d fi j th affe l l e n
 ee a ij d fi j th ee la blau
 ee a ij d fi j th f i m l e
 ee a fi j th o p a n g e i n
 ee a fi j th b l i j g e l l
 ee gij ee a ee d fi j th p a n f e t
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Paint, palette and brushes

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Payment order for pigments,
1523. ThHStAW, Ernestinisches
Gesamtarchiv, Reg. Bb 4321,
fol. 34v.

The painting materials used by Lucas Cranach the Elder and his workshop are recorded in detailed invoices that have survived in several archives.¹ Unlike the textbook by Albrecht Dürer, *Lehrbuch der Malerei*, for which the handwritten drafts provide little insight into the paints used by the artist,² these invoices reveal a wealth of information on Cranach's painting practice. A receipt for payment dating from 1523 (app. II, 119, fig. 103) and the accounts in connection with the building of Schloss Hartenfels in Torgau (1535-38) are among the most comprehensive invoices preserved from the first half of the sixteenth century that deal with pigments. Not only do they list the amounts used and the prices of at least 20 different colourants, they also list more than 1500 *pfund* (c.700 kilograms) of painting materials, which were used predominantly for decorative purposes. Although earlier publications have reproduced the lists of materials, these have been mere summaries and unfortunately some include mistakes in transcription. For instance, colophony³ has been the translation for *kadlofram* (chimney soot), litmus⁴ for *lack* (red lake pigment) and ultramarine⁵ for *blawglasurt farb* (azurite or smalt). Until now these lists have received very little consideration in art technological research but in their newly transcribed form, they can be appreciated in the context of this study.⁶ The purpose here is to examine and compare them with results from the examination of Cranach's panel paintings. Such comparative research will broaden knowledge of the diversity, production, sources of supply, qualities and prices of more than 25 different colours used in the Cranach workshop.

It ought to be mentioned in advance that some of the invoiced materials could not be identified in the paintings. The use of pigments of lower quality (e.g. *ascherblau* – presumably an inferior azurite or synthetic copper blue) or those of insufficient lightfastness could have been ruled out on easel paintings. On the other hand it is possible that plant dyestuffs, such as *saftgrün* (sap green) were used in glazes but evidence of these might either have been lost in the course of cleanings or they were not detected during instrumental analysis. The enduring problem of pigment nomenclature must also be considered. Relating terms that have been inconsistently interpreted in secondary literature on painting technique, e.g. *schifergrün* or *kesselpraun*, to the results of the analysis is to be approached with caution. However, a study of the colours in association with historic written sources can provide new insight into their preparation and use. It should be noted too that some pigments have been identified that were not mentioned in the invoices.

Based on well-established traditions, pigments and lakes in the sixteenth century were prepared from naturally occurring earths and minerals as well as from plant and animal products, while some pigments like lead white and verdigris were artificially made. Cranach was well acquainted with minerals and, indeed, Martin Luther drew on his expert knowledge of precious stones when translating the bible.⁷ Although no evidence of pigments made in the workshop itself has been found, it may be that *carlofracum* was processed into bistre there or yellow ochre was burnt (see below). The court painter was probably able to buy more common pigments (like yellow ochre or woad) in Wittenberg itself. However, it is known that he repeatedly obtained his painting materials and metal leaf from Leipzig. Situated some 65 kilometres from Wittenberg, Leipzig had been accorded trade fair status by the emperor and in the sixteenth century was permitted to hold markets three times a year, each for a period of eight days. Two long-distance trade routes crossed in Leipzig, the *Hohe-* or *Königsstraße*, linking Western Europe to Russia and the *Reichsstraße*, leading from North Germany to Italy. Works of art⁸ and painting materials of differing origin and quality were traded at the markets.⁹ In the early years, Cranach's assistants obtained relatively small amounts of material from Leipzig. In 1505, Christof Maler von München, who was employed in the workshop, spent 12 *gulden* on 'paint, glue and other materials as per a list' at the *Michelsmarkt* (app. II, 5). Occasionally the material was brought by messengers (app. II, 205, 224), an indication that Cranach was able to rely on pigments of suitable quality.

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Detail from **St Jerome**, c.1515
(fig. 246).



On 6 December 1520, Cranach was granted the right to set up a pharmacy, which gave him the sole authority in Wittenberg to sell, among other items, 'ground spices, confectionery, sugar and coloured wax' outside the markets (app. II, 98). During the sixteenth century, several painting materials were considered pharmaceutical items. As far as the running of a sizeable workshop was concerned, there must have been organisational and financial advantages to purchasing pigments and pharmaceutical preparations at large trade fairs.¹⁰ Using the pharmacy to provide the workshop with materials and to supply the city council with paper, ink and sealing wax possibly generated even more profit than the sale of the range of items typically available there.¹¹ In a letter to the elector, Cranach mentions that he obtained his wares not only from Leipzig but also from Frankfurt am Main¹² and, in a communication from 10 October 1525, the court painter and Christian Döring agree on the payment for paper and other materials worth more than 800 *gulden* to Friedrich Precht, a citizen of Strasbourg.¹³ Cranach clearly had a wide range of imported products at his disposal and as a result of extensive work in decorative painting, he bought increasingly larger amounts of materials, surpassing most contemporary artist's workshops in this respect. For example, over the course of four years he drew up invoices for more than 350 pounds of blue pigments worth about 370 *gulden* just for the work carried out in the castle at Torgau. According to his own testimony, he paid out the costs in advance and as early as 1513 he charged for a painting described as 'executed with his own paints' (app. II, 56). In the letter to the elector already mentioned he indicated that he bought the materials for cash and, unlike other apothecaries, did not borrow material from one trade fair to the next.¹⁴ Contrary to this assertion, the estate of Heinrich Ackermann, a tradesman, revealed claims of unpaid debt against Cranach of 1300 *gulden* from 1535 amounting to 1352 *gulden* in 1544.¹⁵ In addition, it appears that some pigments were not always available in the required amount in the periods between the markets. Completion of a commission from the elector to paint a garden house green was delayed through lack of paint (*aus mangel der farbe*, app. II, 186). Since the thirteenth century, local governments required German pharmacies to provide a price list (*taxa*) of all their products.¹⁶ No such *taxa* is known to exist from the pharmacy of Lucas Cranach the Elder and in the preserved receipts the prices of the painting materials fluctuate too wildly as to be based on a list. The invoices made out to the court apparently continue to reflect different qualities and purchase prices and on occasion, with an increase in the amount of pigment, costs drop. A direct comparison between Cranach's invoices and preserved price lists, and the inventory of the estate of Meister Mathis Nithart or Gothart, alias Grünewald,¹⁷ is difficult for a number of

reasons. For instance, the units of measurements relate to differing standards, there are local differences in purchasing power, uneven rises in prices and fluctuations in currency.¹⁸ However, if these influencing factors are disregarded, it appears that Cranach's prices are repeatedly lower than those in the pharmacy price lists in Memmingen (1519) and Dresden (1553).¹⁹ Cranach's best-quality azurite cost the electoral court less than a half the price of that listed in the Memmingen price list, which supports the assumption that Cranach was able to purchase painting materials at a lower price via the wholesale trade and thus he also strengthened the financial situation of his workshop and business.

White pigments

White pigments are the equivalent of light in panel painting and as such would have played a central role in Cranach's compositions. The daytime sky was painted with blue considerably enhanced with white. To depict illuminated materials, white pigments are often mixed in with the local colours. Cranach used pure white to convey reflections of light (on metal or in the eyes) whereas white toned down with black, blue and/or brown was used to depict colourless, silver-coloured or grey materials. White pigments were the essential component of his lighter flesh paint and the white *imprimatura* served to reflect light and heighten the brilliance of colours. Like other sixteenth-century painters, Cranach had lead white and white calcium carbonate at his disposal. Since chalk has poor covering power when mixed with an oil medium, lead white was of greatest importance.

*bleyweiß*²⁰ – lead white

Lead white has a long history as an artificially prepared pigment and the methods for its preparation have been described in detail in many sources.²¹ Chemically, the product is a basic lead carbonate ($2\text{PbCO}_3 \cdot \text{Pb}(\text{OH})_2$), which often contains a trace of neutral lead carbonate (PbCO_3). On Cranach's paintings, the particles appear to be of different sizes. The more fine-grained material is usually associated with larger and rather pearlescent particles.²² On some paintings, lead white was found in association with varying quantities of calcium compounds. It seems possible that chalk was occasionally added as an extender.²³ The painters' manual from the *Karmeliterkloster* in Bamberg (c. 1500) recommends a mixture of lead white and chalk for lightening other colours.²⁴ Whether Cranach bought the lead carbonate in different qualities is uncertain. Between 1523 and 1538, he charged for more than 76 pounds of lead white (*bleyweiß*), at a nearly constant price of about 3 *groschen* per pound. When converted, this comes to 2-2.5 *pfennig* an ounce (cf. table 5). By contrast,

the pharmacy price lists in Memmingen (1519) and Dresden (1553) rate lead white as being somewhat more expensive at 3 or 6 *pfennig* per ounce, respectively.²⁵ One pound of lead white cost Cranach about three times what he paid for red lead and double what he paid for lead-tin yellow (*bleygel*).

*kreiden*²⁶ – chalk and other calcium salts

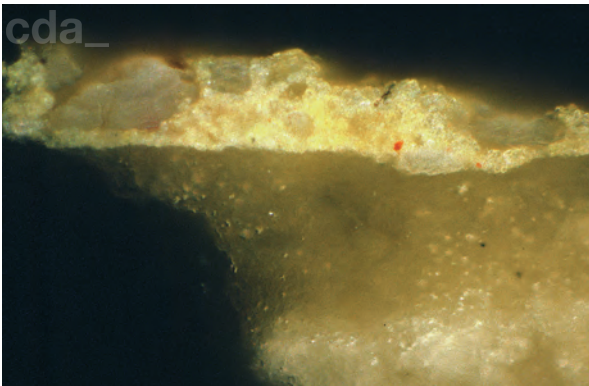
Calcium carbonate was of minor significance as a white pigment in panel painting because of its poor handling properties and transparency in oil medium (see p. 93). When used for lightening, it only worked in aqueous binders: in fact, the grey underpainting of the blue background on the *Altarpiece with the Coronation of the Virgin and Saints* in the Royal Collection in London (c.1520) is a mixture of chalk and black pigment without the addition of lead white and this underpainting and the subsequent layer of azurite are bound in a aqueous proteinaceous medium.²⁷

In addition calcium salts were detected in many oil paint layers. It is known that aluminium hydroxide, calcium carbonate and calcium sulphate served as substrates for red lake pigments.²⁸ They may also have had another use as a modifying agent. Small amounts would add body to a glaze-like paint without inducing a great change in colour. This may have been the function of calcium compounds identified in several green glazes.²⁹ It is also conceivable that in this case they acted as a substrate for plant-derived yellow dyestuffs incorporated into mixtures with other pigments. In finely grained azurite painted in oil the virtually transparent material may also have improved the handling properties of the pigments, or it may result from the processing of the blue pigment. The Strasbourg Manuscript describes, for example, the purification of *lazur* with limewater.³⁰ Calcium compounds were also detected in most of the black paints – in the layers of underpainting, in drapery, backgrounds and coatings on the panel versos. It could be that chalk or other calcium compounds were added as an extender and possibly to improve the drying properties of the paint³¹ (see pp. 163, 169-170).

Yellow pigments

Contrary to the limited choice of white pigments that were known to be appropriate for the use in oil medium in the late Middle Ages and early Renaissance, there was a wide range of yellow colours. However, only two of these have been identified on panels by Lucas Cranach the Elder – lead-tin yellow and yellow ochre. The use of orpiment in the Wittenberg workshop is by no means certain. As yet the only analytical evidence of yellow arsenic sulphide is established on the portrait of Elector Friedrich III the Wise (FR 64A),³² but unfortunately its authenticity as a Cranach is justifiably disputed. The result

of the analysis as well as the fact that the support is unusual for Cranach (see p. 67) tends to substantiate the hypothesis that this painting is a later copy.³³ The yellow pigment in the oil-mordant in the grotesque frieze in the Chamber of Mirrors at Schloss Hartenfels has been interpreted as unstable lead oxide, massicot,³⁴ however, later examinations disproved this assertion.³⁵ On the panel painting *Virgin and Child with Saints* (1516, fig. 22), analysis indicates that in this instance a paint containing a yellow lake pigment was perhaps used to depict the foliage,³⁶ but the precise nature of this pigment has not as yet been established.



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Neustadt Altarpiece, 1511-13 (fig. 215). Cross-section from the background of the predella, painted in lead-tin yellow. The chalk ground is visible beneath.

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Detail from **Altarpiece of the Holy Kinship**, 1509 (fig. 115).

*bleygel*³⁷ – lead-tin yellow

On Lucas Cranach's panels the pigment lead-tin yellow is used most in yellow draperies (fig. 106) and is also applied to depict gold such as gold threads woven in brocade fabrics, as well as for halo rays or in background passages. Signatures, dates and inscriptions on paintings from the Cranach workshop are executed predominantly with lead-tin oxide (cf. figs 229-240), which is also the pigment used for lightening green colours, hair and a distant sky.

It was possible to identify lead-tin yellow, type I (Pb_2SnO_4) on the *Altarpiece with the Martyrdom of St Catherine* (1506)³⁸ and the portrait of King Christian II of Denmark (1523). The yellow pigment occurs in different shades.³⁹ Occasionally, lead white is added to lighten the colour, while finely ground red pigment (vermilion or iron oxide red) is mixed in to shift the shade to a darker hue. Cranach's invoices refer exclusively to *bleygel*. In today's usage, 'lead yellow' means lead oxide or litharge (PbO). However, this material is not sufficiently lightfast to be used as a pigment and has not as yet been detected on panel paintings.⁴⁰ According to Fuchs and Oltrogge,⁴¹ the pigment described as

blygel in the *Göttinger Musterbuch* (fifteenth century) proved to be lead yellow mixed with lead-tin yellow. The aforementioned authors suspect that it was obtained from lead contaminated with tin – possibly as a by-product in the course of cupellation of silver or by heating lead white. At a price of 2-3 *groschen* for a pound of *bleygel*, Cranach charged on average double the price compared with that of red lead oxide (Pb_3O_4) and only about two-thirds of what he charged for lead white ($2\text{PbCO}_3 \cdot \text{Pb}(\text{OH})_2$, cf. table 5). Such calculations exclude the likelihood that the invoices refer to lead-tin-yellow-contaminated lead oxide. The differences in price might rather confirm that the *bleygel* mentioned in the invoices is the lead-tin yellow detected during analysis. According to Kühn,⁴² lead-tin yellow could be processed by melting either lead monoxide, minium or lead dioxide with tin dioxide at temperatures between 650°C and 800°C. It is also possible that historical methods of manufacture were based on metallic lead and tin. The *bleygel* in the invoices is most probably identical not only with the lead-tin yellow (type I) identified on Cranach's panel paintings but also with the *bley gel* in the Dresden pharmacy price list (1553)⁴³ and with the *masticot* (massicot)⁴⁴ referred to in Dutch and French written sources. However, it cannot be ruled out that in the sixteenth century yellow lead oxide was described as *pleigeel*.⁴⁵

*ockergel*⁴⁶ – yellow ochre

Naturally occurring yellow ochres (hydrated and anhydrous ferric oxides) are among the oldest pigments used for painting,⁴⁷ and Agricola in 1556 describes the processing of *ockergel* (*ochra*) in the German mountain site called Harz, not far from Wittenberg.⁴⁸

Cranach charged two *gulden* for half a *zentner* of *ocker gel*, thus indicating that yellow ochre cost roughly one-third of the price of *bleygel*. Cranach valued this pigment primarily in the decoration of architecture.⁴⁹ Yellow ochre was identified as a component of mordants and, in some instances, in green or yellow-brown layers of paint as well in the shadow tones of flesh paint on panel paintings from the Wittenberg workshop.

Red pigments

For passages of red, Cranach could choose between several opaque pigments and translucent lakes. The invoices refer to *mennige* (red lead), *zinober* (vermilion), *parißrot* and *lack* (both red lake pigments). The silicon-rich red iron oxide was also detected on the panel paintings.

*mennige*⁵⁰ – red lead

The Cranach workshop employed red lead oxide (Pb_3O_4) mainly to decorate architecture, but on occasion also in panel painting. Red lead is the colourant in pink *imprimature* (fig. 85) and also in the reddish grounds on the *St Jerome* (1502) and the *Holy Family* (1504, fig. 71). Cranach occasionally used this pigment for underpainting,⁵¹ in combination with others, and more rarely to depict red shadows in yellow drapery.⁵²

Of the red pigments that appear in the invoices, red lead was the cheapest. Cranach consistently charged one *groschen* for a pound (1523, 1535-38). Vermilion, which is brighter in colour, cost the painter at least nine or ten times as much. This difference in price favoured the use of red lead in decorative painting despite the fact that it tends to discolour, particularly in aqueous binding media. The accounts for the building of the castle at Torgau (1535-38) list five times the amount of red lead (114 pounds) than for vermilion. Several medieval written sources recommend producing red lead oxide artificially by burning lead white.⁵³ In the early sixteenth century there is evidence of this practice as we know from the text of a special regulation in Nuremberg.⁵⁴ Fifteenth-century German treatises describe a process to manufacture red lead directly from the metal.⁵⁵ This is a multi-stage process in which litharge is the intermediate product. As Cranach charged for red lead only about one-third of the price of lead white, we can assume that it was produced by burning metallic lead and not from basic lead carbonate. The price ratio in his invoices corresponds to that in the Dresden price list of 1553⁵⁶ and is evidence not only of professional production using this process but also of its widespread use.⁵⁷

*zinober*⁵⁸ – vermilion or cinnabar

Cinnabar is a red compound of mercury and sulphur, which occurs naturally as a mineral but is identical in colour and composition to vermilion (red mercuric sulphide, HgS). Vermilion has for centuries been produced synthetically from mercury and sulphur.⁵⁹ Whereas sixteenth-century German workshop texts barely distinguish between the two forms, the Frankfurt trade fair catalogue (1582) differentiates mountain cinnabar, artificial vermilion and ground cinnabar or vermilion.⁶⁰ Significantly, the synthetically produced pigment was listed at a higher price than the natural product. Over the years, other pharmacy price lists have quoted *zinober*, with no further detail given, at the relatively constant price of 12 *pfennig* per ounce.⁶¹ Between 1523 and 1538 Cranach charged 9-10.5 *groschen* per pound (on average about 7 *pfennig* per ounce) and in 1528 the executors of Grünewald's estate also listed the price of *zinober* at 7 *pfennig* per ounce, obviously lower than in the pharmacy ordinances.

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Detail from **Altarpiece of the Holy Kinship**, 1509 (fig. 115).



Red mercuric sulphide, either natural or synthetic, is the red pigment most often used by Cranach in panel paintings. It is a component of most flesh tints and the colourant in many red robes (fig. 84). This pigment was identified on almost all the paintings examined, although differentiating between the natural or synthetic form is difficult if not impossible. On the *Portrait of the Wife of a Viennese Scholar* (1503), which was painted during Cranach's stay in Austria, the particles are uneven in size and have a distinctly fractured appearance. By contrast, synthetic vermilion, with a smaller particle size, is likely to have been used on some Wittenberg works. Arsenic seams have been noted in the pigment particles found on three paintings, suggesting the presence of dry-process vermilion.⁶²

Red earth pigments

In contrast to the brilliant red of vermilion, red ochre and other iron oxide pigments⁶³ appear as more subdued colour tones. The naturally occurring earth colours were ground, washed and levigated to prepare them for use as pigments. Red iron oxide can also be obtained by burning yellow ochre. In its best form it is almost entirely anhydrous ferric oxide. There is no evidence in Cranach's invoices for the use of red earth pigments despite the fact that these pigments can be detected to varying degrees on his panels. It is quite possible that the red-brown tones were produced by burning *ocker gel* in Cranach's own workshop.⁶⁴

The silicon-rich iron oxide red determines the colour of the red-brown cloak of St James the Greater on the left wing of the *Princes' Altarpiece* (c.1510, fig. 4) and also that of St Catherine's dress on the panel painting of 1516 (FR 85, fig. 22). Occasionally we find iron oxide in red and black underpainting, in black layers of paint as well as in mordants. Red iron oxides are the colouring component of the poliment for burnished gilding and in the 1530s (at the latest) red earth pigment in the form of red chalk was also used for underdrawing (see p. 106).

lack and *parißrot* – red lake pigments

In the sixteenth century, translucent red lake pigments were obtained from plant or animal sources, most frequently brazil wood (various Caesalpinioideae species), madder roots (*Rubia tinctorum* L.), scale insects, for instance, different species of cochineal (*Porphyrophora polonica* L., *Porphyrophora hameli* Brandt et al.) and kermes (*Kermes vermilio* Planchon), as well as from lac, a secretion of *Kerria lacca* Kerr.⁶⁵ The making of lake pigments was fairly common practice, and its description can be found in numerous recipes.⁶⁶ The dyestuffs were extracted from the raw material or dyed textile waste and

precipitated on to a suitable inorganic substrate. The Cranach workshop used red lake pigments prepared from various dyestuff sources and substrates.

However, their identification presented several problems.

The invoices do not document red lakes according to dyestuff type but only by name. *Lack* and *parißrot* are listed at different prices. In 1523, Cranach charged 10 *groschen* and 6 *denaren* for 2 *lot* of *lack*, which was thus 3.5 times what he charged for the most expensive blue pigment. The *parißrot* listed on the same sheet (fig. 103) as well as the *lack* on latter invoices is clearly cheaper. The great difference in price of red lakes from scale insects compared to the price of madder or brazil wood makes it probable that in 1523 Cranach invoiced *lack* of a higher quality, containing dyestuff from kermes, a species of cochineal or lac.⁶⁷ Such translucent crimson pigments could apparently not always be obtained in the required quality. Proof of this seems to be that, during Titian's stay in Augsburg in 1548, he had to arrange for a '*lacca di quella si ardente e splendida nel proprio colore de la grana*' to be sent from Venice.⁶⁸ Some possible explanations for the much lower price of *lack* in Cranach's invoices from the 1530s could be that it was of an inferior colour, or that there were changes in trading conditions, or perhaps it was substituted by another dyestuff, for example, the much cheaper madder.⁶⁹

The Munich Painters' Ordinance (1461) states that *lack*, a higher-quality red lake, should not be substituted by *rösel* or *parisrot*.⁷⁰ Written sources provide various recipes for the production of *parisrot*: the Strasbourgh Manuscript⁷¹ and the *Liber illuministarum*⁷² mention an extract from a 'a species called *lagga*'. The *Liber*⁷³ also describes production from brazil wood, as does Boltz von Ruffach.⁷⁴ The Nuremberg *Kunstbuch* as well as the Bamberg Manuscript recommend good red wool to obtain *paresrot*.⁷⁵ Since wool or rags could have been dyed with different colourants, however, the word *parisrot* obviously describes a particular quality of colour rather than the actual dyestuff.⁷⁶ The consulted sources lead to the conclusion that compared to *parisrot*, *lack* indicates a more intense crimson-red translucent pigment and it seems unlikely that the painter would always be aware of its specific source.

Translucent red glazes are present in almost every Cranach painting examined (fig. 84). Major difficulties in analysing the dyestuff type were related to the small size of samples available and the low concentration of dyestuff present.⁷⁷ While earlier reports refer to madder,⁷⁸ the HPLC analysis⁷⁹ carried out as part of this research did not lead to the dyestuff types being identified. Examination with EDX confirmed the presence of different substrates containing alumina and calcium. On some paintings, red lakes prepared on different substrates are used and occasionally these different lakes are found superimposed in layers.

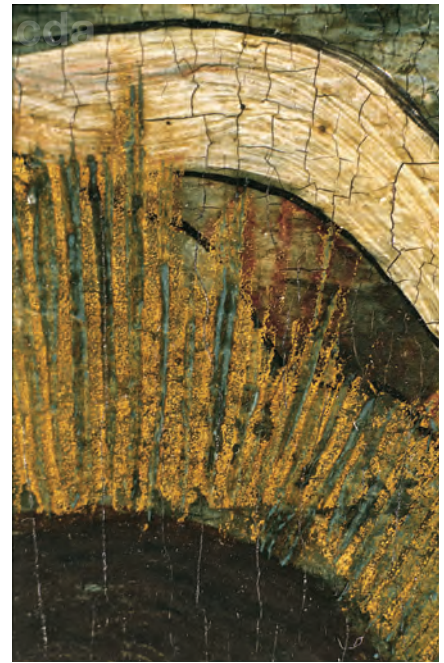
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Lucas Cranach the Elder
and workshop, detail from
Resurrection, c.1509.
Kassel, Staatliche Museen,
Gemäldegalerie Alte Meister.



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Lucas Cranach the Elder
and workshop, detail from
Resurrection, c.1509 (fig. 108).



The red lakes usually show dissimilar drying and ageing properties. All lake pigments require a fairly high proportion of oil medium and are known to be poor driers. When they are used without being mixed with other pigments or additives, distinct drying cracks may occur – a phenomenon that can be observed in various red passages on Cranach's paintings. Today, some of these glazes appear brilliant red, while others are badly faded or have turned brown. Discernible shifts in the appearance of the picture can, for instance, be detected on the *Resurrection* (c.1509, fig. 109) and the *Ten Commandments* (1516, fig. 64). On the latter painting, the original splendour of the colours of the rainbow can only be imagined and virtually reconstructed on the basis of the technical analysis.

Purple fluorite

During his stay in Austria, Cranach used the purplish mineral calcium fluorite (CaF_2) on a few paintings. On the *St Jerome* (1502) and the Cuspinian portraits (1502/03), the sky has been undermodelled with a mixture of lead white and fluorspar (fig. 128).⁸⁰ According to analysis, the faintly coloured mineral did not play a significant part in the depiction of purple robes. Until now, fluorite as an artist's pigment has been identified only rarely on paintings dating

mainly from the late fifteenth and early sixteenth century. In most of the published cases it occurs on panel paintings, polychrome sculptures and wall paintings from the Tyrol and southern Germany. Recent investigations, however, show a more widespread use of fluorite in Europe and therefore further discoveries can be expected.⁸¹

Green pigments and glazes

Analysis shows verdigris to be the principal green pigment used by Cranach to achieve intense tones for landscapes and drapery in panel painting. His invoices do mention *grünspan* (verdigris). However, *berggrün* (mountain green) and *schifergrün* are listed far more frequently, while *schifergrün* is roughly three times the price of *grünspan* and *berggrün* (cf. table 5). This high price would seem to suggest that the pigment was costly to prepare, having high colour intensity and/or particular properties that were valued in painting. Within the course of this investigation, relating the term *schifergrün* to the results of analysis has been a significant problem. The pigment has been variously interpreted in secondary literature as a more vivid shade of malachite (basic copper carbonate, $\text{CuCO}_3 \cdot \text{Cu(OH)}_2$),⁸² the material known today as chrysocolla (a copper hydrosilicate, $(\text{Cu,Al})_2\text{H}_2\text{Si}_2\text{O}_5(\text{OH})_4 \cdot n\text{H}_2\text{O}$),⁸³ copper vitriol (a copper sulphate, $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$),⁸⁴ green earth (the iron-containing mineral glauconite or celadonite)⁸⁵ or *Grünschiefer* (an amphibolite rock containing green minerals).⁸⁶ The following section evaluates contemporary written sources, literature on artists materials as well as the reports from analysis in more detail and offers a new interpretation of the term *schifergrün*.⁸⁷

*schifergrün*⁸⁸ and *berggrün*⁸⁹ – malachite?

In fifteenth- and sixteenth-century German documentary sources on painting techniques, the terms *schifergrün* and *berggrün* are common, as for example in the Göttingen Model book,⁹⁰ the Berlin Model book (fifteenth century),⁹¹ in Stephan Schriber (1494)⁹² and in the *Liber illuministarum* (c.1450-1512).⁹³ Boltz von Ruffach (1549) distinguishes *berggrien* as ‘a slightly pale green colour’ (*ein lichte bleich grien farb*) from *schifer grien* ‘one more beautiful than the other, a heavy material like *lasur*’ (*eins schöner dann das ander, ist eine schwere matery wie lasur*).⁹⁴ The pharmacy price lists in Worms (1582)⁹⁵ and Liegnitz (1583)⁹⁶ refer to *schiffergrün* together with other green pigments with no more detailed specification. Following the death of Meister Mathis Nithart or Gothard, alias Grünewald, in 1528, two judges drew up an inventory in his workshop, listing amongst others *span-grin* (verdigris), *schifer-grun*, *berkgrin* (mountain green), *alchemy grun* (a pigment that remains unidentified), and *schefergrün*.⁹⁷ *Schefergrün* could be identical to *schifer-grun*; both are quoted at six times the price of verdigris.

Considering these sources, *schifergrün* must have been a pigment that could be distinguished from mountain green and verdigris. This assumption is confirmed by Cranach's invoices: the first orders for payment referring to *schifergrün* date from 1523, in this particular case, half a pound cost 15 *groschen* and 9 *denaren* (fig. 103). Between 1535 and 1538, *schifergrün* was invoiced together with *schon bergkgrun*, *grünspan* and *grünsaft* (sap green). The price fluctuated between 21 and 36 *groschen* for one pound (cf. table 5). In line with the executors of Grünewald's estate, the court painter on average charged one *gulden* per pound, which was roughly three times the price of *bergkgrün* (5.25-8.4 *groschen* per pound), *grünspan* (5-7 *groschen* per pound) and *grünsaft* (4-7.25 *groschen* per pound). Thus a pound of *schifergrün* cost about as much as a medium-quality azurite.

To which pigment could the term *schifergrün* have applied? Boltz von Ruffach suggests that it is 'made of ore rocks' (*uss den ertzsteinen gemacht*) and that it should not be ground too finely, otherwise it would lose its beautiful green colour,⁹⁸ meaning that this was, in all probability, a mineral pigment. Some writings apply the term *terra viridis* (green earth)⁹⁹ to *schifergrün*, but green earth and amphibolite rocks can be discounted here because of their relatively low colour intensity. Since the Middle Ages, different copper minerals such as posnjakite ($\text{Cu}_4(\text{SO}_4)(\text{OH})_6 \cdot \text{H}_2\text{O}$) and brochantite ($\text{Cu}_4(\text{SO}_4)(\text{OH})_6$) have been processed into pigments,¹⁰⁰ and therefore the possibility cannot be totally ruled out that *schifergrün* and *bergkgrün* were descriptions of different copper salts. In contrast to this, Fuchs and Oltrogge identified only malachite and different silicates in a colour sample from the Göttingen Model book described as *schiffergrun/berggrun*.¹⁰¹ The suspicion is that both terms refer to one and the same mineral but categorise different intensities of colour.¹⁰² The effect of the colour could depend on various factors such as the degree of contamination, particle size and shape. Thus Beckmann reports that pigment manufacturers in Tyrol divided the raw material that they received from the miners into three groups, depending on the quality: the best of these was the *Malachitgrünsteinwerk*, the second *Oelgrünsteinwerk* and the third common *Berggrün* or *Grundgrünsteinwerk*.¹⁰³ The qualities were further differentiated at the stage of grinding and subsequent levigation of the pigments.

Several authors derive the term *Schiefergrün* from the copper shale (*Kupferschiefer*) occurring in large areas of central Europe.¹⁰⁴ Especially in the Harz region, this sedimentary rock was so rich in copper that it was mined in order to extract its copper content.¹⁰⁵ In 1565, Konrad Gesner describes the occurrence of both mountain green and mountain blue in copper shale from

the Eisleben area, calling them *schifergrün* and *schiferblau*, respectively.¹⁰⁶ Accordingly, Prange remarked in 1782: 'If it is found hard and like stone and either similar to schist or mixed with schist, then it is called *Schiefergrün* – the same as found in Tuscany, near Massa or as in Meissen and other places'.¹⁰⁷ Several eighteenth- and nineteenth-century authors emphasise the fact that there were different sorts of mountain green and that the best *Berggrün* or *Schiefergrün* comes from Hungary.¹⁰⁸ According to Schreger, pure mountain green from Hungary contains much more copper and was more beautiful in colour than that from Tyrol,¹⁰⁹ while Schmidt remarks that the best sort of Hungarian mountain green surpasses that from Tyrol threefold in quality.¹¹⁰ It was traded under the following designations: (1) fine green or bark colour such as forms in gulleys; (2) dark grass green and (3) *schiefergrün* as the worst.¹¹¹ It was obtained in large amounts in Neusohl, Schmöllnitz and Herrengrund.¹¹²

The fact that Agricola, as early as 1546 and 1556, described in detail the processing of copper green (*chrysocolla nativa*¹¹³) in Neusohl is especially significant in this context. In *De natura fossilium* (1546) he writes: 'Native chrysocolla originates in veins and veinlets, and is found mostly by itself like sand, or adhering to metallic substances, and when scraped off from this appears similar to its own sand. Occasionally it is so thin that very little can be scraped off. Or else it occurs in waters, which, as I have said, wash these minerals, and afterward it settles as a powder. At Neusohl in the Carpathians, green water flowing from an ancient tunnel wears away this chrysocolla with it. The water is collected in thirty large reservoirs, where it deposits the chrysocolla as a sediment, which they collect every year and sell [as a pigment]'.¹¹⁴ In *De re metallica* (1556) Agricola refers back to this description¹¹⁵ (fig. 110) and here the first German edition of 1557 translates *chrysocolla* as *berggrün und schifergrün*.¹¹⁶ This is an indication that *berggrün* and *schifergrün* were obtained in the vicinity of Neusohl as early as the sixteenth century. Neusohl (Banská Bystrica) is situated in the Carpathian Mountains in Slovakia, previously known as the lower Hungarian ore-mining centre some 160 kilometres north-east of Bratislava. The important copper ore mines were 8 to 12 kilometres north of Neusohl between Herrengrund (Špania Dolina), Sandberg (Piesky) and Altgebirg (Staré Hory). In 1494, Jan Thurzo from Krakow and the Fugger family from Augsburg founded a trade company, which led to an enormous increase in production. After the Fugger family left in 1546, mining continued with varying intensity until the twentieth century. In 1842 – almost 300 years after Agricola – Zipser provides an exact description of the pigment production in Herrengrund:

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Precipitation of *schifergrün*.
 Woodcut from Agricola, G.,
De re metallica libri XII, Basel
 (1556), 470.



'The mountain green water is collected at its source in gulleys, brought up through the so-called colour tunnel (*Farbstollen*) and conducted into a commensurate number of troughs lined up next to each other. Here precipitation takes place in the residue of the water. The perfect arrangement for producing mountain green is above ground with the carbonate-rich and crystal clear water being conducted through the 29 troughs, so arranged that it can flow from one to the other or into several at a time. The colour is collected from the troughs once a year as follows: as it flows in, the water is diverted from several troughs and conducted into others by means of gullies placed in front of them. After standing for some time, the water is gradually drawn off, with the sides of the trough being carefully brushed down each time until the precipitated colour is concentrated in a little of the remaining water. Then, after being ladled out, it is emptied via gullies into the two final and biggest troughs. The water is again drawn off into the troughs from which it came and what remains is scooped out in the same way. The thickened colour is now taken to the floor of the colour house where it is spread out to dry and finally packed, ready to be sold.'¹¹⁷

This description is preceded by reports by, amongst others, Zedler (1733), Born (1774) and Ferber (1780).¹¹⁸ Ferber states that ‘The green earth colour or natural mountain green, which is obtained at Herrengrund originated partly from the pit water of the mines located higher in the mountains and partly from the surface water of a fountain, the rain and suchlike, which is conducted through the tailings on which the houses of Herrengrund stand and then through gullies into 12 square wooden troughs, each several *lachter* in width and arranged one below the other’.¹¹⁹

The pigment is documented at 55 *floren* per *zentner* (one Viennese *zentner* = 56 kilograms) in 1618 and 31 *floren* per *zentner* in 1640.¹²⁰ Between 1697 and 1721, production of at least 153 *zentner* 11 *pfund* of green colour is documented from Sandberg and Lybethen mines¹²¹, and between 1736 and 1745 a total of 203 *zentner* and 14.5 *pfund berggrün* was obtained at Herrengrund, a yearly production of about 20 *zentner*.¹²² This pigment was exported for the price of 41 *floren* and 15 *kreuzer* per *zentner* to Vienna. A document from Herrengrund reports an average annual production of 30-50 *zentner* of *berggrün* as late as 1829.¹²³

Some authors¹²⁴ thought that the water from which the pigment was obtained was sulphate-rich and thus the pigment might have been a form of copper sulphate, whereas Zipser¹²⁵ stated that the solution was carbonate-rich, and different from the sulphate-rich water in the same area (*vitriolisches Cementwasser*)¹²⁶ in which copper was extracted by means of iron. Indeed, an attempt to precipitate the pigment artificially from a copper sulphate solution failed: ‘In 1752, a separate building was erected at high costs in which mountain green was to be produced by artificial precipitation from pumped cement water. However, these attempts by a Dutch man (de Witt) diminished, since the mountain green obtained by this method was unstable and turned black.’¹²⁷

The copper ores in this area are predominantly sulphides: tetrahedrite and chalcopyrite.¹²⁸ In the presence of water and oxygen, assisted by certain bacteria (genus *Acidithiobacillus*), the sulphides can rapidly oxidise, causing the water to become acidic and sulphate-rich. Heavy metals from the ore, including copper, are leached out into the water. The subsequent processes depend on the balance between acid generation from oxidation of the sulphide minerals and the neutralisation potential of the rocks that the water passes through or over. Minerals such as calcium carbonate can buffer or neutralise the acidity. As the acid mine drainage is neutralised, the copper can precipitate out of the water, forming copper carbonate (malachite) and, in some conditions, other copper compounds such as copper sulphate.¹²⁹

In this region, dolomite and calcareous rocks cover the ore-containing layers, and thus provide good conditions for the development of malachite. X-ray diffraction analysis of a green mineral collected recently from the Sandberg (Piesky) tailings found that it was composed of large quantities of malachite associated with dolomite. The geological conditions, and the fact that, in the historic descriptions, the precipitate was ready to use as a pigment after drying, makes it possible to hypothesise that spherulitic malachite could form. Particles growing unconstricted in water can develop a spherical form due to the splitting of crystals.¹³⁰

Crucial further evidence for this hypothesis has come from the occurrence of spherulitic malachite (confirmed by Raman microscopy) in remnants of a wall painting in a former merchant house in the main square in Neusohl.¹³¹ The painting, which is considered to date from the late fifteenth century, is typical of the so-called 'green room' decoration common in the mining towns of this area. The spherulitic malachite is associated with a few particles of posnjakite, some black copper sulphide, and potassium aluminium silicate. The presence of silicates suggests that it was formed in a natural environment. Both posnjakite and dolomite are present in the hills near Neusohl. Spherulitic malachite has also been found on other paintings close to Neusohl, including a painting in Zvolen castle from 1491-1510 when the castle was owned and renovated by Jan Thurzo.¹³²

In addition, malachite has been identified (by XRD) in paint samples taken from Schloss Colditz (Saxony), for the decoration of which Cranach had been responsible, as well as from one of his houses in Wittenberg, Markt 4.¹³³

Whereas the pigment taken from the house in Wittenberg seems to suggest that it was the secondary mineral¹³⁴ because of the fractured particle shape, the sample taken in Colditz is a malachite of more intense colour, and with a distinct spherulitic shape suggesting that it was obtained by precipitation.

Findings from evaluation of documentary sources and analysis thus lead to the conclusion that *schifergrün* is a term frequently applied to a natural precipitate from water containing copper and dissolved carbonate and which is predominantly spherulitic malachite ($\text{CuCO}_3 \cdot \text{Cu(OH)}_2$). According to changing conditions, it may be found in association with other copper salts or modified subsequently. Schriber,¹³⁵ the Göttingen Model book¹³⁶ and the Trier Manuscript¹³⁷ remark that, before being ground, *schifergrün* should be steeped for one night in vinegar or white wine. This practice, which applies rather to a copper carbonate than to a sulphate or a silicate, possibly generated copper acetate and thereby apparently heightened the pigment's intensity.

Compared to the malachite formed in rocks, which had to be ground and levigated, spherulitic malachite developed particular colour intensity presumably due to its spherical form and less contamination.¹³⁸ Once the powder had dried, it was ready to be sold as a pigment. Accordingly, Boltz von Ruffach wrote that *schifer grien* should not be ground too vigorously or else it would lose its beautiful colour, which applies to several mineral pigments but was not mentioned by him for *berggrien*.¹³⁹ However, the particle form and size may have varied according to changing conditions of precipitation (the pigment collected in gullies was regarded as the best¹⁴⁰) and the extent of grinding. As a result, the ready-prepared paint may have contained both jagged and even-sized spherulitic particles.

The fact that it has not been possible to detect the use of this pigment on Cranach's panel paintings so far does not exclude the possibility of its being the material described as *schifergrün* and having been used. Malachite with spherulitic particle shape was widely used north and south of the Alps.¹⁴¹ It has been identified amongst others on easel paintings by Cosimo Tura, Giovanni Bellini, Francesco del Cossa,¹⁴² Matteo di Giovanni and Sandro Botticelli.¹⁴³ Given the trade routes to many different parts of Europe, it seems possible that artists could have used naturally precipitated malachite from Neusohl. During the fifteenth century, large quantities of copper from Neusohl were transported northwards to Flanders and south to Venice. Leipzig, Frankfurt and particularly Antwerp became important trading centres of Hungarian copper in the sixteenth century.¹⁴⁴ Alternatively, the spherulitic malachite could have come from another source where the pigment was being produced in the same way.¹⁴⁵

The term *schifergrün* is possibly derived from copper shale (*Kupferschiefer*) or slate (*Schiefer*), which abounds in Herregrund region.¹⁴⁶ However, the written variations *schiffergrün*,¹⁴⁷ *scheffer groyn*¹⁴⁸ and *schepfergrün*¹⁴⁹ are worthy of note. They indicate that this pigment was scooped or shovelled from troughs (cf. *schiff*, *schepffen* and *scheffeln*¹⁵⁰). The fact that the meaning of the term was obscured might have to do with an interruption in production or trade. As early as the sixteenth and seventeenth centuries there was some confusion about the term *schifergrün*, and it seems likely that occasionally the term was applied to different shades of colour as well as different pigments¹⁵¹. In the eighteenth and nineteenth centuries the pigment from the Herregrund region was often referred to less specifically as *berggrün* (mountain green) from Hungary.

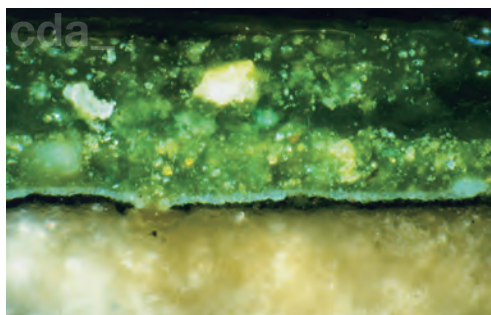
In Cranach's invoices, the term *berggrün* in all likelihood referred to the crushed secondary mineral malachite obtained in copper mining. In line with the different qualities of azurite, the 'beautiful mountain green' (*schon berggrün*) probably denoted more colour-intensive and more expensive fractions of the mineral. The fact cannot be discounted either that occasionally also a precipitated malachite of lower quality or other copper salts were traded under this name.¹⁵² Whilst we were not able to identify any trace of malachite on the panel paintings examined in the course of this project, other authors record this pigment as a component of green paint used by Cranach for robes and landscapes.¹⁵³ There is no doubt, however, that *schifergrün* and *berggrün* do not appear to have been used in Cranach's panel painting nearly as extensively as *grünspan*. It seems likely that verdigris was a more satisfactory green in oil-based media. Within this context the conversion of *schifergrün* into copper acetate as described in treatises still needs to be examined in further detail.

*grünspan*¹⁵⁴ – verdigris and copper green glazes

The term *grünspan* (verdigris) may be related to *Spanisch Grün* (translation from *viride hispanicum*) or to the copper strips from which the green pigment had been manufactured since ancient times.¹⁵⁵ Depending on the preparation process, basic and neutral copper acetates as well as other copper salts¹⁵⁶ are formed, differing in green-blue shades of colour and stability. Neutral verdigris, which is often used in painting (copper acetate monohydrate, $\text{Cu}(\text{CH}_3\text{COO})_2 \cdot \text{H}_2\text{O}$), can be prepared by dissolving copper strips or unrefined basic copper acetates in vinegar and then evaporating the solution.

Verdigris is the most frequently detected green pigment on Lucas Cranach the Elder's paintings but Lucas Cranach the Younger also used it, for example, on the altarpiece in the chapel of Schloss Augustusburg depicting *Electeur August and His Family before the Crucifixion*, completed in 1572.¹⁵⁷ Between 1523 and 1545, Cranach the Elder charged between 5 and 7 *groschen* per pound (3.75 and 5.25 *pfennig* an ounce; cf. table 5). By comparison, the pharmacy ordinances in Munich (1488) and Memmingen (1488) list verdigris at 6 *pfennig* an ounce. The Dresden price list (1553) quotes it at 8 *pfennig* an ounce.¹⁵⁸ Verdigris can thus be considered as a pigment in the medium price range.

It is the predominant pigment in green drapery, foliage, landscapes and monochrome backgrounds (fig. 111). Since verdigris is an intense colour, but has little covering power, it was mostly mixed with lead-tin yellow or lead white, often both, in various proportions, and applied in several layers. Occasionally we find additions of black and, rarely, yellow ochre.¹⁵⁹ Additions of azurite underpin the spatial depth of the landscapes. Lead-tin yellow and lead white



111

Fourteen Helpers in Need,

c.1505/07 (fig. 34). Cross-section from St Blasius' green robe. The lowest layer is the chalk ground, followed by the carbon black underdrawing, a lead white *imprimatura*, several layers of modelling with verdigris, lead-tin yellow and lead white and finally a copper green glaze.



112 >

Detail from **Anna Cuspinian**, 1502/03 (fig. 19).

increase its hiding power and vary the colour and brightness. Opaque layers of green paint often contain particles of different green or green-blue shades and of varying transparency. Opaque modelling is followed by layers of glazes, giving the paint depth and saturation. These glazes are prepared with copper acetate containing a high proportion of binding medium.¹⁶⁰ White and Pile analysed linseed oil in green paint samples from the background of *Johann the Steadfast* (1509) and from the sleeve, bottom edge of *Johann Friedrich I the Magnanimous* (1509, fig. 164), but found no resin.¹⁶¹ So far, research and analysis on this subject have not been carried out but it would be well worthwhile to study the composition and the colour changes of these glazes in more detail.¹⁶² Whereas these coatings on some of the paintings still appear in a brilliant green today, on others they have turned brown and have been partly or wholly removed¹⁶³ in the course of earlier restorations. On some paintings we found both green and brown glazes preserved.¹⁶⁴ It may be that, in these cases, green or yellow lakes were added: the Bolognese Manuscript¹⁶⁵ and a German codex from the fifteenth century¹⁶⁶ contain recipes to improve verdigris with plant juices. The calcium salts detected in the layers that have now gone brown might have acted as a substrate or additive for these fugitive lake colours.

*saftgrün*¹⁶⁷ – sap green

In the late Middle Ages, different plants were recognised as sources for *grun-saft* or *safft grun*. The *Göttinger Musterbuch* describes the use of juice from the *rüten krüde* (rue, *Ruta graveolens* L.).¹⁶⁸ The Strasbourg Manuscript refers to *wechelber* or *tintenber* (buckthorn, *Rhamnus catharica* L.)¹⁶⁹ and the *Colmarer Kunstbuch* describes a procedure for making *safft grün* from *vogel beren* (common privet, *Ligustrum vulgare* L.).¹⁷⁰ Further plants might have been used.¹⁷¹ It has, as yet, not been possible to identify any *saftgrün* on Lucas Cranach's paintings although its price, 4-7.25 *groschen* per pound, was almost the same as for *berggrün* (mountain green) and *grünspan* (verdigris, cf. table 5). Considering the low lightfastness of these vegetable dyestuffs, its use should not yet be discounted.

Blue pigments

Cranach made use of a wealth of blue pigments. His invoices confirm different types and various grades: *schon blaw*, *lasur plaw*, *blau von feldung*, *gering plaw*, *oelblau*, *ascherblau*, *blaw glasurt farb*, *indich* and *waiblaw*. On panel paintings we were able to detect ultramarine, smalt and azurite in various grades. On the early Wittenberg paintings, the proportions and qualities of blue pigments varied: on the *Fourteen Helpers in Need* (c.1505/07, fig. 34) and the *Altarpiece with the Martyrdom of St Catherine* (1506, fig. 77), Cranach used azurite only – and sparingly. On the other hand, the appearance of the *Altarpiece of the Holy Kinship* (1509, fig. 115) and the *Princes' Altarpiece* (c.1510, fig. 4) is determined by deep ultramarine blue. Was it possible that the colour composition was dependent not only on artistic intention, pictorial tradition and the commissioner's expectations, but also on the availability of the pigments?

Ultramarine

The most intense blue pigment on Cranach's palette was natural ultramarine, a complex sulphur-containing sodium aluminium silicate, $(\text{Na,Ca})_8(\text{AlSiO}_4)_6(\text{SO}_4, \text{S, Cl})_2$, made from the mineral lapis lazuli. In the fifteenth and sixteenth centuries, the main source was Badakshan in modern Afghanistan¹⁷² and, via Venetian merchants, the pigment was traded in Europe at a very high price.¹⁷³ In Cranach's oeuvre, the application of ultramarine is limited to highly important commissions by the court, such as the *Altarpiece of the Holy Kinship* (1509, figs 113-115) and the *Princes' Altarpiece* (c.1510, fig. 4).¹⁷⁴ However, no ultramarine is listed in the transcribed invoices.¹⁷⁵ To judge from price comparisons, *Lasur blaw* or *best blaw* can only mean particularly good quality azurite. The name ultramarine, with its allusion to its origin overseas, can be seen as an

indication that this pigment had been shipped to Venice and from there been transported to northern Europe. In comparison to Netherlandish panel painting – where it was frequently, if not exclusively, used by Jan van Eyck, Rogier van der Weyden, Hans Memling, Gerard David, Quinten Massys and Jan van Scorel for example¹⁷⁶ – its use in sixteenth-century Germany appears to have been much less common. It is possible that it was not generally available.¹⁷⁷ Cranach's use of this pigment immediately following his travels suggests that he acquired it in the Netherlands, as did Albrecht Dürer during his later visit to Antwerp.¹⁷⁸ What is noticeable is the uncommon hatching application of the ultramarine in the Virgin's robe on the *Altarpiece of the Holy Kinship* (1509, fig. 147). This technique of applying paint obviously reflects practices picked up during his travels. Cranach's path also took him via Nuremberg, where at that very time Albrecht Dürer was using, in his own words, 'good-quality ultramarine' (*guten ultramarin*) on the *Heller Altarpiece*.¹⁷⁹

In fifteenth- and sixteenth-century pictures, the high-quality ultramarine has often been reserved for the robe of the Virgin.¹⁸⁰ Cranach instead used this expensive blue pigment on the *Altarpiece of the Holy Kinship* (1509) not only for the Virgin's robe but also for other motifs and more strikingly to paint the sky (figs 113, 114, 116). On the *Princes' Altarpiece* (c.1510) it is the dominant blue pigment in white, light blue and dark blue drapery. In this instance,

113

Detail from **Altarpiece of the Holy Kinship**, 1509 (fig. 115).

114 >

Altarpiece of the Holy Kinship, 1509 (fig. 113). False-colour infra-red photograph detail.

115 (pages 152-153)

Lucas Cranach the Elder, **Altarpiece of the Holy Kinship**, 1509. Central panel, 121.1 × 100.4 cm, left shutter, 120.5 × 45.2 cm, right shutter, 120.7 × 45.4 cm. Frankfurt, Städtisches Kunstinstitut.







he does not underpaint with a less expensive pigment, nor does he play with the contrasts between different blue pigments. There is use of small quantities of azurite, but restricted to colour mixtures which are not blue. None of the other examined works follow this extravagant use of ultramarine. It was detected on a *Crucifixion*, dated 1532,¹⁸¹ but in light of all the technical analysis provided, this work cannot have been produced in Lucas Cranach the Elder's workshop. Attribution to him should be disregarded because of significant differences in the choice of materials and techniques.¹⁸²

lasurblau – azurite

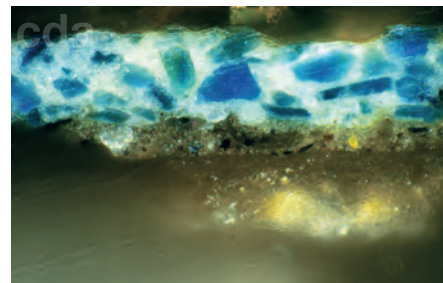
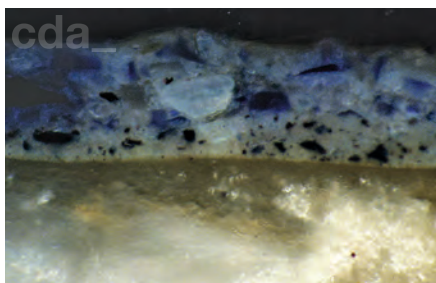
Natural azurite (basic copper carbonate, $2\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$) was the most commonly used blue pigment in Lucas Cranach the Elder's workshop. Sixteenth-century German mines, such as those in Wallerfangen and Goldberg, supplied large quantities of the mineral. In comparison to ultramarine it was widely available.¹⁸³ Azurite was traded in different shades of colour based on differences in impurity content, particle size and probably also particle shape.¹⁸⁴ In the invoices, the descriptions of the blue pigments follow different criteria, such as quality of colour (*gering blaw*, *schon blaw* and *best blaw*) and use (*blaw*, *das man erstlich anstreicht*, *blaw von feldung*). These terms might describe different qualities of natural azurite, but synthetic copper blue pigments cannot be discounted.¹⁸⁵ The bulk of the blue pigments served to decorate walls and ceilings in the rooms at Schloss Hartenfels such as in the *saalstube* (38 pounds of *blaw* and 43 pounds of *gering blaw* for the first coatings) and in the *hofstube* (12 pounds of *plaw*). Forty-four pounds of *plaw* were used to paint a whole house and cloths. The remains of glue-bound azurite on grey underpainting are preserved today in the background on the grotesque frieze in the castle's Chamber of Mirrors, completed in 1537 (fig. 211).¹⁸⁶

In most panel paintings by Lucas Cranach the Elder, high-quality azurite is the only blue pigment used for the draperies, for the sky paint and for the backgrounds of portraits (figs 57, 72). Azurite has been found in small quantities, for example, in the flesh paint or in the whites of eyes. For modelling purposes, the pigment is usually lightened with white, only rarely mixed with black and often applied on grey underpainting (figs 117, 129). Usually it was used in an oily binding medium, but it is also found in aqueous systems. To avoid colour changes in oil, it is possible that the pigment was ground first in a proteinaceous medium.¹⁸⁷ Generally, the particle sizes of the pigment in Cranach's earliest works are rather coarse compared to the workshop production of later decades (cf. figs 117, 119). The finely ground azurite is usually applied in very thin layers. The different shades of colour across different

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Altarpiece of the Holy

Kinship, 1509 (fig. 115). Cross-section from blue sky showing the chalk ground, a grey undermodelling with lead white and carbon black of vegetable origin, and the final layer of ultramarine and lead white.

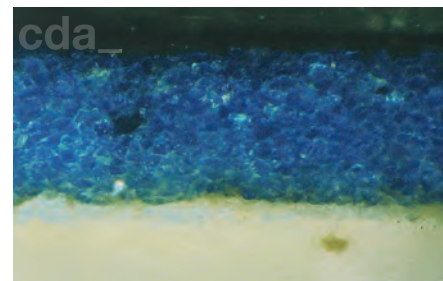
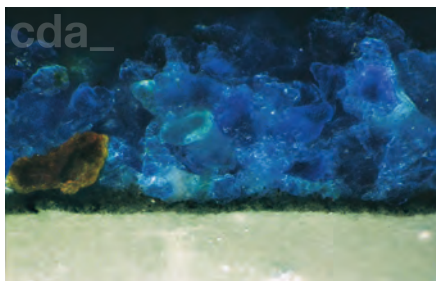


117 >

Portrait of a Viennese

Scholar, 1503 (fig. 181).

Cross-section from blue sky, comprising azurite and lead white over a grey undermodelling and the chalk ground.



118

Neustadt Altarpiece, 1511-13

(fig. 215). Cross-section from blue ornamental painting on the predella showing azurite of large particle size (30-60 µm) on a dark grey underpaint (carbon black, calcium carbonate). The chalk ground is present beneath.

commissions have been determined in the course of this research, but hardly ever within a single passage of painting. In contrast to the regular practice, whereby inferior qualities were used for underpainting when decorating architecture, Cranach's studio palette – as a rule – contained only the best-grade azurite with very few impurities.¹⁸⁸

119 >

Cardinal Albrecht of Brandenburg as St Jerome,

1527. Cross-section from blue sky showing azurite of small particle size (3-6µm) on a white *imprimatura* and beneath the chalk ground.

In 1523 Cranach drew up an invoice for *schlicht blau feldung* and *blau von feldung*, and one in 1545 for *feltdun plaw* (app. II, 119, 272 and table 5). The 1523 invoice makes it clear that this pigment was also traded in different colour intensities.¹⁸⁹ A pound of *blau von feldung* cost more than a *gulden* while a pound of *schlicht blau feldung* cost only 9 *groschen*. An examination of the written documents on the technology of art does not provide any conclusive explanation regarding such a pigment, the form of its preparation or its application. In general terms, a *feldung* meant 'divided off'; enclosed areas in walls, doors, shields, coats of arms, letters or paintings.¹⁹⁰ The Strasbourg Manuscript, referring to *zu veldunge in buchstaben* – for laying in the flat tints of letters – recommends *liecht lazur*.¹⁹¹ The *Liber illuministarum* uses the word *feldung* in connection with relief brocade applications and an instruction for burnished gilding.¹⁹² Thus *feltdun plaw* and *blau von feldung* in Cranach's invoices might denote a pigment for decorating monochrome blue passages of paint. We did in fact find in the background passages of various paintings

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Lucas Cranach the Elder and
workshop, **Saviour**, c.1515/16.
Panel, 223 × 111 cm. Naumburg,
Domschatzgewölbe.



an azurite, which differed from others in the particular size of its particles (figs 118, 120). The average size (30-60 μm) exceeded more than tenfold that of the finest sorts used in drapery and areas of sky. This large-particle azurite appears in the backgrounds of the panels with *Virgin and Child with St Anne* (c.1515/16), the *Saviour* (c.1515/16) and the *Altarpiece with the Coronation of the Virgin and Saints* (c.1520).¹⁹³ A similar grade served to decorate the predella box on the *Neustadt Altarpiece* (1511-13). It was used on the retables in Kade (c.1515/20) and Brandenburg (1518) to paint the rear wall of the shrine and to polychrome the sculptures. Unfortunately, due to a lack of understanding, most of these blue passages have been damaged by cleaning or varnishing and consequently have been completely overpainted so that the original effect can only be a matter of conjecture. The positive results of staining cross-sections, the analogous type of damage and the underpainting with a mixture of calcium carbonate and black pigment (see p. 133) confirm that the original work was carried out in an essentially aqueous proteinaceous medium. In all probability, the *feltdun plaw* occurring in Cranach's invoices refers to this azurite fraction, coarsely ground and thus particularly blue in appearance. The large particle size meant it was too coarse to be used for modelling purposes except for decorating monochrome passages. Binding it in a

proteinaceous glue would have produced a particularly velvety effect, which contrasted with the burnished metal leaf and shiny layers of paint. After 1510, Cranach thus transposed a technique traditionally practised in the polychromy of sculptures and architecture to his panel painting.

The invoices indicate that blue pigments were sorted according to grain size as well as intensity of colour and degree of purity. Coarsely ground dark blue azurite did not constitute the highest quality and therefore most expensive pigment; those were reserved for a purified fine particle size with good properties for modelling tonal values. Between 1535 and 1538, Cranach charged half a *gulden* for a pound of *gering blau* and *plaw das man zum ersten anstreicht* (blue for first coating). Comparable to the price of *blau von feldung*, a pound of *blaw* or *schon blaw* usually cost one or one-and-a-half *gulden* and, for the most expensive azurite, Cranach charged 48 *groschen* a pound (36 *pfennig* an ounce).¹⁹⁴

The terms *ascherblau* and *oelblau* appear ambiguous in this context: a pound of *ascherblau* cost 7 *groschen* in 1523 and this is only one-third of the price of *lasurblau*. The name *ascherblau* possibly referred to a greyish, contaminated azurite (*cinis lazurii*)¹⁹⁵ with small particles, which Boltz von Ruffach called *eschplo*.¹⁹⁶ It could, however, have been an artificial copper blue.¹⁹⁷ The pigment *oelblau*, which was invoiced at an only slightly higher price in 1523, may, according to its name, have been used in an oil binding medium.¹⁹⁸ On the other hand, it is possible that the term was also used for an azurite of inferior quality¹⁹⁹ or another blue pigment altogether.²⁰⁰

blawglasurt farb – smalt?

In December 1505, Cranach received a payment of 10 *gulden* 15 *groschen* for 10 pounds and 3 *viertel* of *blawglasurt farb* (app. II, 6). Schade transcribed it as azurite²⁰¹ and Müller-Wirthmann as *Lasurfarbe*,²⁰² which has been interpreted as ultramarine.²⁰³ In 1515, the religious order, the *Barfüsser Brüder* in Wittenberg, received a payment ‘for a window in which my Lord’s coat of arms have been “glazed” (*für ein fenster dar inne meines gnedigen hern wappen verglasurt*).²⁰⁴ The use of the word *verglasurt*²⁰⁵ in connection with the production of stained glass could also lead to the conclusion that *blawglasurt farb* denotes the glass pigment smalt.²⁰⁶ Smalt is a blue potassium glass, which obtains its colour from a small amount of cobalt oxide added during manufacture.²⁰⁷ The glass was coarsely ground for use as a pigment. The history of smalt in European painting is not known with certainty. It has been identified on several panels from the fifteenth century²⁰⁸ but it became more important in the following century, when cobalt was being mined in Saxony.²⁰⁹ According to present findings, smalt was first used extensively in Lucas Cranach

the Younger's workshop, whereas azurite was the predominant pigment in Cranach the Elder's panel paintings. The reason for this could be the cost and difficulty of purchasing high-quality azurite, as well as a general preference for smalt in the second half of the sixteenth century. Smalt was identified by EDX-analysis on the canvas painting *Christ and the Woman of Samaria* (c.1552), on the *Kemberg Altarpiece* (1565)²¹⁰, a triptych of the electors (1566?)²¹¹ and on the portrait of Elector Johann Friedrich I (1578), painted on canvas. The pigment was used on its own and in combination with others, for example with red glazes. The red robe of Christ on the painting *Christ and the Woman of Samaria* (c.1552, figs 193, 201) was modelled on a grey underpainting with a red lake pigment to which smalt has been added. The smalt gave a more purple colour and at the same time may have acted as a siccativ. The same practice could be determined on a painting by Titian, *Venus and Adonis* (c.1560).²¹² It is not impossible that Cranach adopted this practice from Titian whom he met in Augsburg 1550/51.²¹³ The examined paintings from the Wittenberg workshop reveal that the pigment has been partially or completely discoloured. This discolouration seriously impairs the original colour balance. Backgrounds that were originally blue today appear only grey (figs 194, 195).

indich and *wait plaw* – indigo and woad

For dyeing and painting, indigo was the most important blue plant dyestuff. It was obtained from *Indigofera* species growing mainly in parts of the Far East and had been imported since antiquity.²¹⁴ In Europe, the blue dyestuff was also produced from *Isatis tinctoria* L. (known as woad and dyer's woad), which was cultivated on a large scale in Silesia, Brandenburg, Thuringia and the areas of Magdeburg. Thus it must have been easily available to Cranach. Invoices list *wait plaw*, *indisch weit blumen* and *indich*. Owing to the very close similarity between the terms and the fact that all cost the same, it is not certain if, when using the word *indich*, Cranach actually meant Indian Indigo or indigenous woad. It is possible that the terms were used synonymously. Perhaps they also denote different shades of colours or conditions of preparation.²¹⁵ At the price of one *gulden* a pound (1535/37) this blue plant colourant was among the more expensive pigments on a par with medium-quality azurite but in comparison it had rather little brilliance and lightfastness (cf. table 5).²¹⁶ Blue plant dyestuff, which was probably used in decorative painting and for illustrations, is only of minor significance on the panel paintings of Cranach and appears infrequently in his invoices. In fact, indigo has not been identified on any of Lucas Cranach the Elder's paintings,²¹⁷ although its use should not be ruled out.

Brown paints and glazes

Orders for payment mention *braun*, *kesselpraun* and *carlofrahm*. Brown iron oxide with different silicon content and brown organic colourants have been detected on Cranach's panel paintings, but it has not been possible to link sources and analytical results unequivocally.

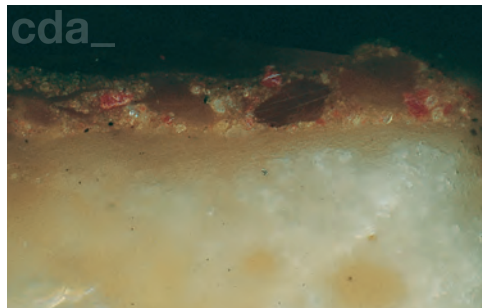
kesselpraun – brown iron oxide and brown earth pigments?

In the years 1536 and 1537, Cranach's workshop assistants used more than 70 pounds of *kesselpraun* in Schloss Hartenfels. In just one year, the price per pound rose from 2.6 *groschen* to 5.25 *groschen* (cf. table 5). *Kesselpraun* was thus more expensive than *bleygel* (c.2-3 *groschen*) and considerably more expensive than ochre (c.o.7 *groschen*). The term *Kesselbraun* was widespread in the sixteenth century. Among sources mentioning this colour without further comment are the *Liber illuministarum*,²¹⁸ Albrecht Dürer, who acquired it on his visit to the Netherlands²¹⁹ and the Liegnitz pharmacy price list of 1583.²²⁰ Secondary literature in subsequent centuries describes totally different materials as *Kesselbraun*: in 1763, Bohn stated that *Kesselbraun* is 'a brown earth, which coppersmiths and cauldron makers use to give their new work colour' (*braune Erde, womit die Kupferschmiede und Keßler ihrer neuen Arbeit die Farbe geben*).²²¹ Schreger equated *Kesselbraun* with *Kupferbraun* (copper brown) and *la terre brune à eclaircir*. He described it as 'a thinner and finer copper hammer scale to coat dark- and light-coloured copper vessels' (*dünnere[n] und feinere[n] Kupferhammerschlag zum Anstrich der kupfernen Geschirre von dunkler und heller Farbe*).²²² On the other hand, in 1895, Cremer derived the term from the brown coal sludge that frequently settled at the bottom of cauldrons and equated it with *Kasslerbraun* (cassel earth).²²³ In 1984, Kühn also used *Kessel-*

121

Altarpiece of the Holy**Kinship**, 1509 (fig. 115).

Cross-section from the curtain, painted in vermilion, brown iron oxide, an unidentified brown organic colourant, lead white and carbon black. The chalk ground is present beneath.



122 >

Detail from **Altarpiece of the Holy Kinship**, 1509 (fig. 115).





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Detail from **Martyrdom of St Catherine**, c.1508 (fig. 40)

braun and *Kasslerbraun* as synonyms.²²⁴ More recently, Burmester and Krekel have discussed the possibility that the *Kesselbraun*, acquired by Dürer in the Netherlands, might be burnt verdigris (*es ustum* or *crocum veneris*) since analyses of the brown colours of his paintings reveal a high copper content.²²⁵ A hitherto little-consulted manuscript from the fifteenth century, now in the Württembergische Landesbibliothek in Stuttgart, could provide another explanation to help solve the question of which pigment(s) denoted *Kesselbraun* in the Middle Ages and early Renaissance.²²⁶ The Stuttgart manuscript indicates that the pigment was iron based. Under the entry *crocum martis*,²²⁷ the author noted that 'it is found on the large nails under the salt pans; it is a brown powder and it is called *kessel brun*' (*den findet man under den salcz pffannen an den grossen negeln und ist ain pruns pulver, man nennet es kessel brun*)²²⁸ and on the following page he emphasised: 'The *crocus martis* which is the most precious for painting and no one can make it. It has to be brought from Venice or the sea. Take the rust found on old anchors. Burn it brown in a fresh coal fire and allow it to cool. Grind it on a stone and you will have a colour more brown than scarlet.'²²⁹ A document from Tyrol dating from 1558 confirms these details: 'the salt pan provides subtle *keßlbraun*' (*die salßphann gibt keßlbraun subtil*).²³⁰ The brine was heated in stock pans until the water vaporised and salt crystals formed. In the medieval period, large pans made of lead or iron sheet were used. As a rule, they stood on stone pillars and were linked by long poles, called *Dexen*, to the ceiling beams. These were to prevent the bottom of the pan from warping while the liquid was boiling. At the bottom end, the wooden poles could be equipped with a piece of iron in the form of a nail. The head of this nail sat under the base of the pans.²³¹ It is these nails that the writer of the Stuttgart Manuscript must have meant. In the warm, humid atmosphere, large amounts of rust doubtlessly formed, the colour of it being affected by the salt water. The iron pans would also corrode in a relatively short time and damaged metal sheets had to be replaced or new ones applied with rivets.²³² The brown paint samples from Lucas Cranach's paintings that were examined contained organic colourants or pigments based on iron oxide. No pigments containing copper could be detected.²³³ The organic brown colourants did not have the characteristic secondary components that indicate cassel earth, the source of which would be lignitic or peat deposits. The frequent presence of iron, silicon and aluminium suggested the use of inorganic brown earth pigments. A colour sample taken from the brocade curtain on the *Altarpiece of the Holy Kinship* (1509) contained large particles of an intense brown. Only iron could be detected by EDX (figs 121, 122). This could be *kesselpraun*. Not far from Wittenberg, west of the Elbe, there were several salt works, which means that in theory the brown iron oxide could have been obtained there.

carlofracm – chimney soot / bistre

A receipt dated 1509 mentions 40 *kannen* (cans) of *kadlofram* for the relatively low price of one *gulden*, 8 *groschen* and 8 *denaren*. In 1536, for almost the same price, one *butten* (vat) of *carlofracm* is shown (cf. table 5). The terms *kadlofram*²³⁴ or *carlofracm*²³⁵ literally mean ‘the black substance in the chimney’,²³⁶ the residue containing tar, soot and resin from the combustion of wood. Schmidt determined the use of the blackish pigment bound in oil in the decoration of the wooden surfaces on sixteenth-century architectural elements in Schloss Colditz, for which Cranach was jointly responsible.²³⁷ The fact that chimney soot was listed in connection with 700 roses and flames (*rosen und flammen*) printed on paper is a reason to suppose that Cranach used the material as a component of printer’s ink. A corresponding sixteenth-century recipe was recorded in Mathesius.²³⁸ Both the Strasbourg Manuscript²³⁹ and Boltz von Ruffach²⁴⁰ described the method of preparing wood soot for use as a lovely brown hair colour (*russfarb zu harfarb*). They recommended pouring a solution of lye over selected lumps of soot and heating until they dissolved. When the residue had settled out, supernatant liquors were decanted and used with gum medium. The sediment supplied a more substantial colour. Analysis has not confirmed whether Cranach used such a bistre in his panel painting.²⁴¹

In theory it is possible that the organic colourant identified in brown glazes or paints²⁴² could come from a wide variety of natural products and their modified counterparts.²⁴³ Brown tars made from wood and resins had been produced in Europe since the early Middle Ages,²⁴⁴ and, as early as the sixteenth century, written documents on painting technique refer to asphalt as a glaze for areas of shadow in flesh paint.²⁴⁵ In addition, brown resins, balsams²⁴⁶ and mummy²⁴⁷ were deployed. A more detailed analysis of the materials used by Cranach presupposes highly refined analytical methods and for this reason is left to future research.

Black pigments

In 1555, Johann Neudorffer refers to the fact that Lucas Cranach was praised for his ability to paint velvet, ‘that he was able to paint it in black even blacker and the blackest of all’ (*...das er den in schwartz noch schwertzer und aufs allerschwertzist hat molen kunnen*).²⁴⁸ The Nuremberg paymaster appended this statement to a recipe for the production of ivory black, and it seems reasonable to suppose that Cranach preferred this pigment for the black clothes worn by his sitters. In a 1995 publication, the analytical results of the black

pigment used on the *Fourteen Helpers in Need* (c.1505/07) were interpreted as ivory black because of the high percentage of calcium that it contained.²⁴⁹ Research done for this book has, however, led to other conclusions.

kyn ruß – pine soot (carbon or soot black)²⁵⁰

Pliny was among the first to describe soot production as the collection of what was found after incomplete combustion of resin, pitch and especially pine wood, achieved through burning in an enclosed space.²⁵¹ A recipe from the *Bamberger Handschrift* (fifteenth century) is similar: ‘Take pine resin or other resin and burn it under a basin; a good black can be obtained from the soot’ (*Item nim kyn adder hartz unnd borne daz under eyn becken; von dem rame wirt guth swartz*).²⁵² The product was a very fine deep black pigment. In 1536, Cranach’s invoices listed 26 *kannen* of *kyn ruß* at a cost of 13 *groschen*. Contrary to the assumption – still current today – that soot was used very seldom in easel painting,²⁵³ soot black was the pigment most often used by Cranach for underdrawing, black drapery, backgrounds and for coating the versos of paintings (figs 39, 51).²⁵⁴ Accordingly, in 1549, Boltz von Ruffach also recommended *kien schwartz* (pine black) with a little lead white and indigo for the black habits and caps of clerics.²⁵⁵ In addition to carbon, lead white as well as copper and calcium salts were found in different proportions in the paint samples. Since soots require a high amount of oil as binding medium and therefore dry very slowly, it is likely that verdigris was added as a siccative, as recommended by Armenini,²⁵⁶ Lebrun,²⁵⁷ De Mayerne²⁵⁸ and others. Correspondingly, analysis of black paint in various works by Cranach using EDX and light microscopy identified traces of copper green in these black paints.²⁵⁹

Because of the high calcium content in the black background paint of the *Fourteen Helpers in Need*, Neelmeijer, Wagner and Schramm concluded that ivory black had been used.²⁶⁰ However, EDX examination of cross-sections showed that, although the black paint contains traces of white calcium salt, there is no phosphorus to indicate the presence of bone black or ivory black. There are various reasons why calcium carbonate would be present as a component of paint containing soot: it could be a residue from combustion, vestiges of calcium from the preparation process,²⁶¹ or a mixture with an organic lake pigment containing chalk as an extender or substrate.²⁶² It is also conceivable that chalk was added to the soot black, which is of small particle size, in order to improve its handling properties and/or to reduce the amount of binding medium. The addition of chalk would also improve the drying properties (see p. 133).

Carbon black of vegetable origin

Carbon black was produced by charring wood (charcoal) or other vegetable matter such as vines (vine black) and peach kernels (charred peach stones)²⁶³ in an low-oxygen environment. The resulting material was finely ground with a pestle and mortar. The reason that this pigment is not found in Cranach's invoices might be that it was simple and cheap to produce in his own workshop. By comparison with the fine soot black, the particles of carbon black are larger and absorb less light. The hiding power of this pigment is also inferior. On Cranach's paintings, vegetable-derived carbon black was used less frequently to model black passages, but it served widely to tone down coloured pigments and to model white or grey passages of paint. It enhanced the cool half-tones of most of the flesh painting and was a component of his underpainting, from early years in Vienna and throughout his career (figs 116, 117, 129).

Bone or ivory black

Bone or ivory black is prepared by charring animal bones or waste ivory in a closed crucible. The product is a deep blueish black composed of carbon, calcium phosphates²⁶⁴ and calcium carbonate – the residue of the structural material of which bone is built. Neudorffer was correct when he noted in 1555 that a pigment produced from ivory waste 'is blacker than any black' (*schwerzer dann kein schwartz ist*).²⁶⁵ However, his reference to Cranach's practice cannot be sustained. Ivory black was certainly not the pigment that gave the Wittenberg court painter a reputation for painting the best velvet. Bone or ivory black was identified on only one of the paintings examined: the *Portrait of a Man, Perhaps a Mayor of Weißenfels* (1515, fig. 206). Although this does not necessarily mean that ivory black was not used more frequently, analysis has confirmed that Cranach used soot or vegetable black to fashion almost all the black robes and in the underpaint for green and red velvet fabrics.²⁶⁶

Table 5:
Painting materials used in the
Cranach workshop²⁶⁹

PAINT, PALETTE AND BRUSHES

Painting materials	Current terminology	Date	Amount	Price in <i>groschen</i> per pound	Price converted into <i>pfennig</i> per ounce	Occurrences on panel paintings
<i>kreiden</i>	chalk	1536 1536 1536/38	2.5 <i>zentner</i> 6 <i>stein</i> 2 <i>zentner</i>	c.o.15 c.o.14 c.o.14	c.o.11 c.o.10 c.o.10	many
<i>bleyweiß</i>	lead white	1523 1535/36 1536 1536/38 1537/38 1537/38	4 lb 12 <i>lot</i> 28 lb 14 lb 24.5 lb 6 lb 4 lb	2.65 3 3.4 3 3 3	1.98 2.25 2.55 2.25 2.25 2.25	many
<i>bleygel</i>	lead-tin yellow	1523 1535/36 1536 1536 1536/38 1537/38 1537/38 1543/45	2 lb 30 lb 10 lb 1 lb 21.5 lb 6 lb 4.5 lb 12 lb	2 2.1 2.1 3 2.44 2.08 2.48 1.75	1.5 1.57 1.57 2.25 1.83 1.56 1.86 1.31	many
<i>ockergel</i>	yellow ochre	1535/36 1536	0.5 <i>zentner</i> 12 lb	c.o.76 0.66	c.o.57 0.49	many
<i>mennige</i>	red lead	1523 1535/36 1536 1536/38 1537/38 1537/38	2 lb 40 lb 2 lb 53 lb 12 lb 7 lb	1 1.05 1.3 0.99 1 1	0.75 0.79 0.99 0.74 0.75 0.75	many
<i>zinober</i>	vermilion or cinnabar	1523 1535/36 1536 1536/38 1537 1537/38	0.5 lb 7 lb 4.5 lb 4.5 lb 2 lb 1 <i>viertel</i> 1 lb	10.5 9 9.3 9.3 9.33 10.5	7.87 6.75 6.97 6.97 7 7.87	many
--	red earth pigment	--	--	--	--	many
<i>parißrot</i>	red lake pigment	1523	1 lb	26.25	16.69	red lake pigments of unknown dyestuff source often identified
<i>lack</i>	red lake pigment	1523 1535/36 1536 1536/38 1537/38	2 <i>lot</i> 1 lb 8 lb 19 lb 2 lb	168? 14 9 15.9 15.75	126? 10.5 6.75 11.92 11.81	red lake pigments of unknown dyestuff source often identified

II / PANEL PAINTING

Painting materials	Current terminology	Date	Amount	Price in <i>groschen</i> per pound	Price converted into <i>pfennig</i> per ounce	Occurrences on panel paintings
--	fluorite	--	--	--	--	FR 4, 6, 7
<i>bergkgrün</i>	mountain green (most likely malachite)	1535/36 1536 1537/38 1537/38 1543/45	18 lb 10 lb 9 lb 3 lb 24 lb	5.25 5.25 7 7 7	3.94 3.94 5.25 5.25 5.25	hitherto not identified on panel paintings
<i>schon bergkgrün</i>	beautiful mountain green	1536/38	35 lb	8.4	6.3	
<i>scheffergrün</i> <i>schifergrün</i>	most likely spherulitic malachite	1523 1535/36 1536 1536/38 1537/38 1537/38	0.5 lb 14 lb 14 lb 8 lb 5 lb 2 lb	31.5 36 21 21 21 21	23.62 27 15.75 15.75 15.75 15.75	hitherto not identified on panel paintings
<i>grünspan</i>	verdigris	1523 1537/38 1543/45	1 lb 4 lb 14 lb	5 7 5.25	3.75 5.25 3.94	many
<i>safigrün</i>	sap green (green plant juice)	1536/38 1537/38 1537/38	4 lb 1.5 lb 1 lb	7.25 7 4	5.44 5.25 3	hitherto not identified
--	natural ultramarine	--	--	--	--	FR 18, 20
<i>lasurblau</i>	azurite	1523	1.5 lb 11 <i>lot</i>	21	15.75	many
<i>blaw</i>		1535/36 1535/36 1535/36 1536 1536 1537 1535/38	38 lb 44 lb 12 lb 12 lb 2 lb 1 lb 3 <i>viertel</i> 0.5 <i>viertel</i>	31.5 31.5 18 21 10 21 48	23.62 23.62 13.5 15.75 7.5 15.75 36	
<i>schon plaw/</i> <i>best blaw</i>		1536 1536 1536/38 1537/38 1537/38	15 lb 0.5 lb 52 lb 10.5 lb 4.5 lb	31.5 21 31.5 31.5 30.8	23.62 15.75 23.62 23.62 23.1	
<i>gering blaw/</i> <i>blaw zum ersten mit anzustreichen</i>		1535/36 1536 1536/38 1537/38 1537/38	43 lb 25 lb 76 lb 9 lb 8 lb	10.5 10.5 10.5 10.5 10.5	7.87 7.87 7.87 7.87 7.87	
<i>oelblau</i>		1523	0.5 lb	10.5	7.87	
<i>ascherblau</i>		1523	2 lb 4 <i>lot</i>	7	5.25	
<i>blau von feldung</i>		1523	1 lb 12 <i>lot</i>	c.26	c.19.5	
<i>schlicht blau feldung</i>		1523	2.5 lb 12 <i>lot</i>	c.9	c.6.75	

PAINT, PALETTE AND BRUSHES

Painting materials	Current terminology	Date	Amount	Price in <i>groschen</i> per pound	Price converted into <i>pfennig</i> per ounce	Occurrences on panel paintings
<i>blawglasurt farb</i>	smalt?	1505	10 lb <i>3 viertel</i>	21	15.75	smalt hitherto identified only on canvases ²⁶⁷ or panels of Lucas Cranach the Younger
<i>indich</i> <i>indisch weit blumen</i> <i>wait plaw</i>	indigo/woad	1536 1537 1535/36 1536/38 1537/38	1.5 lb 14 <i>lot</i> 9 lb 5 lb 2 lb	21 c.20.57 21 21 21	15.75 c.15.56 15.75 15.75 15.75	hitherto not identified
<i>kesselpraun</i>	iron oxide	1536 1536 1536/38 1537/38 1537/38	40 lb 10.5 lb 12 lb 6 lb 2 lb	2.6 3 5.25 5.25 5.25	1.95 2.25 3.94 3.94 3.94	FR 18(?)
--	brown earth pigment	--	--	--	--	many
--	organic brown pigment	--	--	--	--	FR 11, 18, 20, 78, 191 et al.
<i>kadlofram/ carlofracm</i>	chimney soot/ bistre	1509/36	40 <i>kannen</i> <i>1 butten</i>	<i>1 kanne</i> = 0.74 gr <i>1 butten</i> = 30 gr		hitherto not identified (possibly the organic brown pigment)
<i>kyn ruß</i>	pine soot (carbon black)	1536/38	26 <i>kannen</i>	<i>1 kanne</i> = 0.61 gr		carbon black of unknown origin often identified
--	bone black/ivory black	--	--	--	--	FR 63
--	carbon black of vegetable origin	--	--	--	--	many
<i>leym</i>	protein glue	1508 1526/27 1536 1536 1536/38 1537/38 1537/38 1545	4 lb 3 lb 2.5 <i>zentner</i> 3 <i>stein</i> 1 <i>zentner</i> 4 <i>stein</i> 3 <i>stein</i> 1 <i>stein</i> 13 lb 6 <i>stein</i>	1.63 1.67 c.1.34 c.1.34 c.1.34 c.1.36 c.1.37 c.1.43	1.22 1.25 c.1 c.1 c.1 c.1.02 c.1.03 c.1.07	many
<i>mel</i>	flour	1536	3 <i>scheffel</i>	1 <i>scheffel</i> = 6.67 gr		only on canvases ²⁶⁸

Painting materials	Current terminology	Date	Amount	Price in <i>groschen</i> per pound	Price converted into <i>pfennig</i> per ounce	Occurrences on panel paintings
<i>leynoel</i>	linseed oil	1533	14.5 lb	1.5	1.12	FR 19 and most likely on many others
		1535/36	60 lb	1.15	0.86	
		1535/38	1 lb	1.5	1.12	
		1536/38	55 lb	1.32	0.99	
		1545	45 lb	1.5	1.12	
<i>guten firnus</i>	good varnish	1535/36	1 lb	21	15.75	hitherto not identified
<i>firnus</i>	varnish	1545	0.5 lb	21	15.75	
		1536/38	18 lb	4.08	3.06	
		1537/38	4 lb	5.25	3.94	
		1545	12 lb	6.21	4.66	
<i>gemein firnus</i>	ordinary varnish	1535/36	24 lb	5.25	3.94	

Binding and paint media

Vegetable and animal glues, drying oils and natural resins were some of the binding media used by Cranach. The type, ratio and physical characteristics of these materials, individually or in combination, directly influenced his painting technique, the optical properties of the painted surface, such as luminosity and transparency, and the ageing behaviour. Identification of organics in binding media calls for difficult and time-consuming analyses with expensive equipment and, as has already been discussed in chapter I, there is a lack of certainty in the description of these materials. Newer, more refined analytical procedures continually shed doubt on earlier results.²⁷⁰ In addition, consolidants and coatings added in the course of conservation treatments often complicate the interpretation of any analytical results. Within this research project there were few occasions to apply refined analytical methods, therefore the following remarks are restricted to an evaluation of the payment orders and a general classification of types of materials.

leym – glue

As early as 1505, Cranach obtained glue from the *Michelsmarkt* in Leipzig. In later years, the price was specified and fluctuated between five *groschen* for three pounds (1526/27) and seven *gulden* for one *zentner* (1536/38). Cranach used this material in great quantities in the decoration of Schloss Hartenfels. Normally, this would have been proteinaceous (animal) glue, but in one instance the amount of 1 *gulden* and 13 *groschen* was recorded for *leymledder*

(glue leather) from the tanner (*weißgerber*, app. II, 207) indicating a pre-processed source. Cranach presumably bought the leather scraps so that he himself could produce a glue of high quality.²⁷¹

Glues served as binding media in the decoration of architecture²⁷² and painting on canvas²⁷³ (as indicated by invoices and analytical evidence), as well as in panel painting and polychrome sculpture. Fibre residue from animal skin, occasionally observed in grounds, together with a positive protein reaction during staining, suggests the use of animal glue as a binder. On the verso and the sides of the predella of the *Neustadt Altarpiece* (1511-13, figs 188, 215, see p. 220) the use of a water-based technique is suspected, based on visual appearance, but the hypothesis is untested. Analysis has proven, however, that there are both aqueous and oil paint layers on some easel paintings. In accordance with various written sources,²⁷⁴ the monochrome azurite-blue background is repeatedly bound with a predominantly proteinaceous medium, whereas drying oil predominates in adjoining passages of paint (fig. 120, cf. *feltdun plaw*). At the present time it is only possible to speculate on the combined use of both media for certain pigments²⁷⁵ or emulsified systems.²⁷⁶ Because of the broad spectrum of activity in which he was involved, Cranach was undoubtedly well versed in the application of other aqueous media such as egg,²⁷⁷ gums and starch. Future examinations may resolve the question of whether and to what extent they were used in his panel painting. Starch mixed with protein glue for the priming of canvas paintings was detected through analysis and its use substantiated by Cranach's invoices (see p. 245).

*leynoel*²⁷⁸ – linseed oil

Cranach applied linseed oil, which has been widely used as a medium in painting north of the Alps for many centuries, for different purposes: he charged 161 pounds of *leynoel* at a cost of 1.15-1.5 *groschen* per pound in connection with painting and gilding work in Schloss Hartenfels (cf. table 5). In 1533 he sold 14.5 pounds to the Wittenberg Armoury for the same price. Linseed oil was identified in green, red and black paints on the portraits of Johann the Steadfast and Johann Friedrich I the Magnanimous (1509)²⁷⁹ and there is no doubt that drying oils predominate in his panel painting.²⁸⁰ However, there is at present little reliable data on how the oil was prepared and mixed.²⁸¹ Since the artist applied the paint in layers, an oil that dried (oxidised) quickly was required. This process could be accelerated with the addition of siccatives and the application of heat.²⁸² Heat pre-polymerised oil was used, for example, in the black background of the *Portrait of a Man* (1524, FR 181).²⁸³ The presence of copper salts (presumably verdigris) detected in black areas of the picture indicates the addition of siccative.²⁸⁴ It is possible that

finely grained glass was added for the same purpose.²⁸⁵ Occasionally a trace of pine resin was found in the oil paint,²⁸⁶ presumably to impart greater transparency, saturation and gloss. Such a paint would be much more effective as a glaze or a deep translucent shadow.²⁸⁷

Some semi-transparent inclusions in the paint have been identified as metal carboxylates, most probably lead carboxylates or lead soaps, which are usually formed during the drying of oil paint in the presence of lead-containing pigments or dryers.²⁸⁸ It was not possible to characterise the organic inclusions in flesh paints in any more detail nor the intermediate layers with yellow fluorescence.²⁸⁹

When the *imprimatura* was applied to the panel with *St Stephen, King of Hungary* (c.1511) the paint clearly ran, indicating the use of additional binding medium or diluents.²⁹⁰ The paint could have been thinned by the addition of boiled or other forms of modified oils.²⁹¹ Also, other diluents, for example spirits of turpentine, oil of lavender or petroleum (naphtha), were available at the time,²⁹² but since these are difficult if not impossible to detect by analysis and they are not mentioned in any of Cranach's invoices examined, their use cannot be confirmed. The paintings of the first two decades frequently reveal distinct drying cracks in the red and black paint as well as in the areas of painted flesh tones.²⁹³ There could be various reasons for such defects.²⁹⁴ For instance, they are often caused by paint applied in layers displaying differences in drying behaviour.²⁹⁵ However, most paintings, including those that appear to have been produced rapidly, are soundly painted and demonstrate Cranach's highly sophisticated handling of oil paint systems.

The court painter mentions *tafeln* (panels) and *tuch von olfarben* (canvas of oil paint) in his invoices (app. II, 234, 316). Considering the fact that oil binding media predominate on all the panel paintings examined, then this technique can be described in a generalised way as oil painting. There are, however, some passages of paint where aqueous binding media predominate and additions of resin to the oil have also been detected. Thus it seems more appropriate to characterise the paint system as 'mixed media' – which it will be necessary to characterise in greater detail in the future.

firmus – varnish

A coat of varnish was intended to protect both paint and metal leaf from environmental effects and physical damage, while at the same time fulfilling optical and aesthetic functions.²⁹⁶ At present there has been no research carried out on the materials used to produce varnishes and the practices of varnishing in Cranach's workshop. At least two different qualities of varnish are recorded in the books of accounts. In the 1530s, the court painter charged

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Lucas Cranach the Elder
and workshop, **Saint Luke**.
Woodcut from **Luther Bible**
(1534), 79. Weimar, Herzogin
Anna Amalia Bibliothek.



the price of one *gulden* per pound for *guten firnus* (good varnish) and about one-fifth to one-third of the price for *firnus* (varnish) or *gemein firnus* (ordinary varnish, see table 5). There are no details on the composition and so it is open to conjecture whether these were oil-resin varnishes with different resin components, which were quite usual at that time.²⁹⁷ Other written sources from the sixteenth century also distinguish between ordinary and good varnish, listing the addition of various resins such as amber, sandarac, mastic and pine resin.²⁹⁸ Knowing so little about the composition of the varnish, it was not possible to establish if all paintings received a coating of varnish before leaving the workshop.²⁹⁹

Easel and palette

In comparison with painting materials, the preserved works and invoices tell us little about the tools for painting. There is a woodcut with an illustration of Saint Luke's workshop (1532, fig. 124)³⁰⁰ showing an easel, a palette, a mahlstick, a few brushes and some other tools and containers. It is likely that this interior reflects the basic implements that would have been present in Cranach's studio. Another woodcut (1543/47) depicts a portrait of the artist with a palette and brushes.³⁰¹

The illustration of Saint Luke's easel is similar to a modern three-legged easel. The front is made of a wide board with movable pegs to support panels or canvases of different sizes at the right height, possibly even in relation to standard formats.

A tool used by many painters was the mahlstick, a long stick with a padded end that could be leant against the picture or the easel, allowing the painter to support and steady his hand when painting fine details. Both woodcuts show a round palette, which corresponds in shape and size to other contemporary illustrations.³⁰² Such a palette would hold a limited amount of paint and even if the size of the depicted palettes was reduced for compositional reasons, the sixteenth century palette barely allowed enough room for all the paints needed for a picture to be set out and mixed simultaneously. It was common practice to modify the tone and colour of a paint with a limited number of other pigments. Indeed, in most layers of Cranach's paintings the mixtures found consist of only two or three pigments and minor quantities of modifying agents. In green, brown and flesh tones we also found four to five pigments and, in a few exceptional circumstances, six. One of the richest mixtures of paint is revealed in the flesh of the *Saviour* (c.1515/16). It contains lead white, vermilion, carbon black of vegetable origin, iron oxide brown, a brown organic colourant and traces of azurite. Van de Wetering concluded that in sixteenth-century painting palettes were set up separately for each passage and that there was a fixed formula for the depiction of the various parts of a painting. Furthermore, van de Wetering suggests that paint was generally ground and prepared specifically when it was needed for a certain passage of colour.³⁰³ Examination of the distribution of pigments in Cranach's works reveals that although the variety of pigments present in individual layers of paint is small, the precise selection is not consistent. For example, we found in the flesh tones of some paintings only red lake,³⁰⁴ instead of vermilion, and yellow ochre was only rarely detectable in flesh paint. Bearing in mind diverse forms of division of labour in the studio and serial production, it would appear that an assistant ground and mixed specific pigments for the painter according to a fixed formula, handing them over ready prepared and laid out on the palette. However, this cannot be confirmed. Most pigments were presumably available to the painters in the large workshop already ground in a medium and from this stock, they were able to help themselves, as required, to appropriate amounts of paint, which they transferred from small containers to the palette. The results of various observations support this hypothesis: Cranach undermodelled every passage as a separate entity before he continued painting the volumes in greater detail. As a result, in one day he needed



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Detail from **Penance of
St Jerome**, 1502 (fig. 81).

a wide range of prepared paints and often only small amounts of them. They were in fact frequently so small that grinding them separately would have been difficult technically and not very economical: for instance, in some portrait paintings, green and blue pigments were used to paint individual pieces of jewellery only a few square millimetres in size. In addition, contemporary illustrations of sixteenth-century painters' workshops, such as the woodcut of Saint Luke in the Luther Bible,³⁰⁵ show a good number of shells and small pots in which prepared colours were kept.³⁰⁶ In his invoices Cranach frequently listed *farb tigel* and *topf*, containers suitable for mixing and temporarily storing glue-based and oil paints. Such small pots made it possible to store prepared oil paint under water, thus preventing them from drying out. An appropriate instruction is preserved in the Tegernsee Manuscript.³⁰⁷

Brushes – ‘harbenschel’ and ‘porspenschel’

Cranach painted with hair and bristle brushes of varying shapes and sizes. In the course of the building of the castle at Torgau, he drew up invoices for *fegschwentz*³⁰⁸ (squirrel tail) and *fuchsschwentz* (fox tail) as well as *borsten* (bristles) ‘from which to make brushes’ (*penschel darauß zu machen*, app. II, 220, 229). In other words, the court painter bought squirrel and fox tails³⁰⁹ as well as bristles (perhaps hog or boar) to make brushes in his workshop according to need. Boltz von Ruffach³¹⁰ provides precise instructions on how to make brushes from *veech schwentzlin* (squirrel tail): he recommends bunching selected hairs together with silk threads and inserting them into moist quills of different sizes. A handle was then fitted to the other end. The possibility that Cranach also bought ready-made brushes cannot be discounted. An order for payment from 1545 contained 3 *gulden* ‘for bristle brushes and hair brushes’ (*vor porspenschel und harbenschel*, app. II, 272).

Wider bristle brushes were used to apply the *imprimatura*. The X-radiograph of the *Martyrdom of St Catherine* (c.1508) reveals that these brushes were more than three centimetres in width. To block in individual passages of paint, Cranach chose smaller sizes. On the *Altarpiece with the Martyrdom of St Catherine* (1506) a blunt bristle brush about 15 millimetres wide was used for the sky, and one or more brushes about seven millimetres wide were preferred for drapery and landscape.³¹¹ Depending on panel measurements Cranach’s works often indicate the use of brushes ranging from five to ten millimetres in width for the application of paint³¹² and smaller ones for subsequent modelling purposes. Brushes with trimmed blunt bristles allowed the characteristic stippling application of paint (see pp. 190-191).

Stray hairs embedded in the paint are proof that fine, pointed hair brushes were used for details. A single particularly thin hair can be found in the yellow halo of the infant Jesus on the *Virgin and Child* (c.1512/14) in the Thyssen-Bornemisza collection. To depict fur, Cranach and his assistants occasionally resorted to using hair brushes with split ends (see p. 192). Furthermore, Brachert and other authors³¹³ consider the possibility of a woodcock plume being used for the fine hairlines on Cranach’s paintings. To date, however, there is no evidence of this practice in the paintings of Cranach.

Conclusion

This discussion of pigments and paint media demonstrates that the Wittenberg court artist made full use of a great wealth of materials. Colourants and techniques vary both within single works and across commissions. The pigments dealt with here were not all used at the same time by Cranach in any of the panel paintings examined and the use of some materials is likely to have

been restricted to decorative work or mural painting. At the same time, the mutually complementary invoices and results of analysis make it clear that Cranach had a wider range of pigments available to him than has been established in the case of his contemporaries Dürer and Grünewald. Examination shows that the selection of materials was influenced not only by tradition, the commissioner's wishes and his financial resources, but also by local sources, artistic exchange and trade. For example, Cranach only used fluorite on a few panels produced in Vienna and the use of ultramarine was apparently restricted to a short period after his visit to the Netherlands. Price comparisons of his colourants allow conclusions to be drawn about their production and trade. The example of *feldung blau* expands our knowledge of the most diverse qualities of azurite but also reveals how, from the 1520s, Cranach reverted to more traditional combinations of material in panel painting.

In addition, the examination of painting materials has confirmed that the original tones of some paintings differ greatly from their current appearance. As a result of restorations performed with insufficient knowledge of nature of the materials, flesh glazes as well as azurite backgrounds painted in a water-based medium have been damaged, while sections of pictures executed in unstable smalt appear grey in colour today. The analysis and interpretation of painting techniques that apply to this rich range of materials is the subject of the following section.

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Detail from **Cardinal**

**Albrecht of Brandenburg as
St Jerome**, 1527. Staatliche
Museen zu Berlin, Preußischer
Kulturbesitz, Gemäldegalerie.





Techniques of painting

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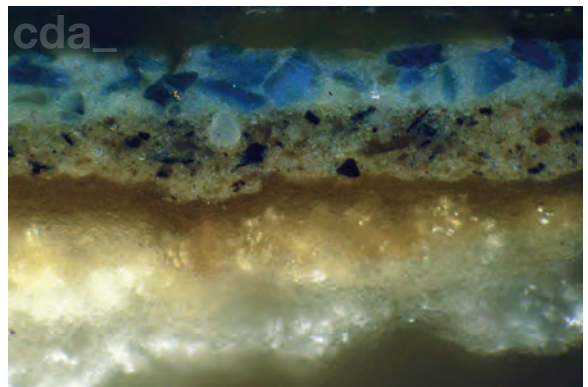
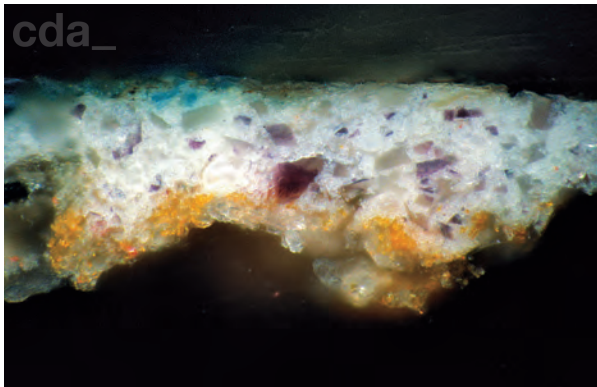
Lucas Cranach the Elder and workshop, **Virgin and Child**, 1518. Panel, 56.5 × 38.7 cm. Cologne, Wallraf-Richartz-Museum – Fondation Corboud.

Almost all descriptions of the painting technique of Lucas Cranach the Elder written in the twentieth century have been inextricably linked with the practices of Flemish and Old German masters as described by Doerner in 1921.¹ According to Doerner, these artists began their paintings with a monochrome underpainting using white pigment in egg or casein tempera, applied on a red, green or ochre *imprimatura* in an oleo-resinous medium. Despite the fact that no technical evidence has been found to support these assumptions, various authors remain convinced of its existence.² Doerner's description persistently influences the interpretation of X-radiographs. Wolters and Gronau, for example, describe a virtual 'lead white relief' where other strong X-ray-absorbent pigments, such as red lead and lead-tin yellow, are present in the underpainting.³ When the ochre brown *imprimatura* or the virtual 'lead white relief' were not detected during close inspection, it was concluded that Cranach occasionally abbreviated what was thought to be the medieval practice of painting in layers.⁴ Consequently, Gronau and Riemann interpreted what they describe as an 'extended *alla prima* technique' as a technical innovation.⁵ A more differentiated description of the Wittenberg court painter's techniques will be qualified here. The application of paint, the underpainting, the modelling of light and shadow, the sequences of painting as well as variations and changes in the working process will be examined. Consideration will be given to the use of various techniques within one single work, as well as the innovations, changes and reversions in style in the course of the more than 50 years that Cranach the Elder painted. Since there was such an enormous variety of techniques, a comprehensive description of all characteristics is beyond the scope of this study.

*Undermodelling*⁶

Monochrome grey undermodelling is a characteristic but inconsistently applied technique of the Wittenberg court painter. It is used for modelling form and tonal values of individual areas of the composition and in particular passages of blue sky and drapery. Occasionally blue backgrounds have been worked-up on top of monotone grey. According to the available results of analysis, it was only in the 1540s that Cranach changed this practice and began to use *grisaille* as underpaint for all parts of the composition including the flesh painting.

The grey undermodelling usually consists of mixtures of lead white and carbon black of vegetable origin. However, there are exceptions. There is an opaque, pale purple undermodelling for the sky, with a mixture of lead white



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Penance of St Jerome, 1502 (fig. 81). Cross-section from blue sky. The layers are from bottom upwards: reddish ground layer containing red lead, lead white and calcium carbonate; undermodelling layer containing fluorite and lead white; and blue paint layer containing azurite and lead white.

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Portrait of a Viennese Scholar, 1503 (fig. 181). Cross-section from blue sky. The lowest layer is the chalk ground, followed by a grey undermodelling of lead white and carbon black of vegetable origin and a blue paint layer of azurite and lead white.

and the purplish mineral fluorite on the panel with *St Jerome* (1502, fig. 128).⁷ In contrast to the Cuspinian portraits (1502/03), black pigment replaced the fluorite on the *Portraits of a Viennese Scholar and His Wife* (1503), painted only a few months later (fig. 129). The greyish undermodelling of the sky was found frequently on paintings created between 1503 and around 1520.⁸ The tonal values in this layer are lightened towards the horizon almost to pure white and thus these heighten luminosity. Trees and landscape are generally not undermodelled in grey. It has not been possible to confirm whether the irregular use of this technique depended on the size of the picture, the subject matter, the commission or whether it was just the personal preference of the master and/or some of his assistants.

The earliest example of a grey undermodelled blue robe was found in the *Virgin and Child* in the Thyssen-Bornemisza Collection, which dates from around 1512/14. Such *grisaille*-type modelling for blue drapery appears to be common in Cranach's workshop between around 1515 to 1520 (figs 127, 130).⁹ According to the available results of analysis, this practice occurred less often in the 1520s when the Cranach workshop attained its highest level of productivity. In addition to the *grisaille* undermodelling of the sky and drapery, there are also blue passages of background underlaid in monotone grey (fig. 120).¹⁰ Whereas the undermodelling for the sky and drapery was worked predominantly with drying oils, aqueous, proteinaceous glue was used to apply the grey underpainting for the blue background. On the *Altarpiece with the Coronation of the Virgin and Saints* (c.1520) in the Royal Collection, London, the underpainting of the background contains no lead white but chalk and vegetable-derived carbon black. However, most of the monochrome backgrounds on portrait paintings, carried out with comparatively finely ground azurite in oil, are not underlaid in grey.

Only very occasionally was grey underpaint identified in red and green passages. The pink garment draped over the arms and the red inner lining of the cloak (fig. 99) of the two princes on the *Altarpiece of the Holy Kinship* (1509) were first modelled in *grisaille* with white, blue and black pigment, while the red underrobe of the Darmstadt *Virgin and Child* (c.1516/18) is underpainted in grey to black-grey. Until the 1530s, the Cranach workshop mainly undermodelled red areas of the picture with red pigments or with monotone black (see p. 183).

To date, the only evidence of grey underpainting for a green robe was found in the *Altarpiece of Georg the Bearded* (1534).¹¹ Within the investigated paintings are a reddish layer covered by the green background on the *Portraits of a Woman and a Man with a Rosary* (c.1508, FR 27, 56),¹² a beige modelling under green on the *Holy Trinity* (c.1515) and a greyish layer under green on the Washington *Portraits of a Man and a Woman* (1522).¹³ On most of the examined works from the period before 1540, green passages are undermodelled in different shades of green or in black (see p. 186). *Grisaille*-like preparation

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Lucas Cranach the Elder and workshop, **Christ Taking Leave of His Mother**, c.1516/20. Panel, 109 × 83.8 cm. Vienna, Kunsthistorisches Museum, Gemäldegalerie.



of flesh tones remains rare during this period. Thus far it has been possible to identify its existence only in a cross-section of paint from the Virgin on the *Altarpiece of the Virgin* in Aschersleben (c.1515/20).¹⁴

Over four decades, therefore, the grey underpainting served not so much in the tonal organisation of the entire painting, but mainly for the modelling of individual and particularly blue areas of the picture.¹⁵ Presumably it was the intention to paint the transitions between light and shade as smoothly as possible. Thus, *grisaille*-like preparation is often accompanied by stippled application of paint (see pp. 190-191). The monochrome underpainting seems to relate particularly to the handling and optical properties of the azurite, whereby this blue would appear more translucent and luminous by increasing its reflective properties. Although handling properties improve with lower particle size, the colour intensity diminishes as it does with the addition of white and black pigment. Various treatises mention the fact that blue should be ground with as little oil as possible¹⁶ and there was no lightfast blue lake pigment to harmonise the tonal variation. Consequently, the grey undermodelling provided an efficient technique for modelling blue passages. Cranach did not develop a new technique but continued and refined a tradition that was widespread in Western panel painting and polychromy.¹⁷ It is interesting to note that he followed the tradition in unbroken fashion but only for a limited time. The vigorously painted Viennese *Crucifixion* (c.1500, fig. 16) and the retable wings representing St Valentine and St Francis (c.1502/03, figs 32, 33) did not require any grey undermodelling but the brilliance and smoothness of the paintings' surface, above all of the second decade, seems inextricably linked to the *grisaille*-like preparation (cf. fig. 130).

It was only in the 1540s that a larger number of Cranach's paintings appeared with complete *grisaille* undermodelling, including the flesh tones, which corresponds to the increasing incidence of this practice both north and south of the Alps.¹⁸ In this fashion, Cranach produced mainly large format panel¹⁹ or canvas²⁰ paintings depicting many figures (fig. 193). In order to efficiently rationalise production, a comprehensive tonal underpainting of the entire composition replaces the additive technique relying on varying local underpainting, which perhaps evolved from purely practical considerations related to workshop organisation. Under such a system, Cranach could easily supervise and, if necessary, interfere to correct formal and tonal elements of the painting before elaborating them in colour. This hypothesis is borne from the fact that, for example, the *Fountain of Youth* (1546, FR 407),²¹ which Cranach the Elder is believed to have painted in its entirety,²² is not underpainted in *grisaille*.

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Lucas Cranach the Elder
and workshop, **Lot and His
Daughters**, 1528. Panel,
55.8 × 36.8 cm. Vienna,
Kunsthistorisches Museum,
Gemäldegalerie.



In 1555, Johann Neudorffer refers to Lucas Cranach as a painter who was praised for his particular virtuosity in painting velvet.²³ These words of tribute are most probably associated with his practice of underpainting fabrics in black. Although this practice was not his own technical innovation,²⁴ the frequency with which he employed monotone black underlayers is impressive. An early example painted partially on black is the purplish robe of *St Valentine* (c.1502/03, fig. 33). Only a few years later, various dresses on the *Altarpiece with the Martyrdom of St Catherine* (1506) were worked up over extensive black underlayers. In contrast to areas of grey underpainting – often mixtures of lead white and carbon black of vegetable origin – carbon black obtained from soot was frequently used.²⁵ On this soot-black layer, draperies were modelled with bright opaque colours and completed with glazes (figs 131, 135). This technique allowed light and shade to be formed without subtractive colour mixing, thereby reducing the intensity. This sequence of painting was used routinely for red,²⁶ green²⁷ or deep purple²⁸ clothes for at least four decades. The aubergine-coloured robe of St Catherine on the Budapest martyrdom (c.1508) resembles in execution that of St Barbara on the retable in Erfurt, carried out around 1540 by a pupil of Cranach.²⁹ Red robes painted on black were most popular in the 1520s. This technique of underpainting in black reflects both the artist's inspired approach to the depiction of velvet as well the material properties of the pigments available. Its use presupposes the application of coloured glazes to harmonise transitions between light and shade. The lack of a brilliant blue glaze might be a reason why black underlayers are less frequently found under blue (fig. 131).³⁰

Using this technique, Cranach expanded his repertoire of depictable fabrics. The inconvenience has presumably been that the drying time of the black paint had to be respected before the next layer of colours could be applied, which could have delayed the completion of the whole painting. However, for a factory-like production, this practice was highly efficient and, for apprentices, easy to copy. Cranach's pupils of the second decade, for example the Master of the Pope Gregory Masses, employ this technique so often and so mechanically in their own workshops that it becomes even more characteristic for their production than for Cranach himself. On some works, for instance the *Altarpiece of the Virgin* in Halle (1529), outlines and folds of the drapery were even scored into the ground to keep them visible after the application of the black paint.³¹ On a few panels, both grey and black underpainting are present. With the advent of *grisaille*-like undermodelling of the entire composition, the monotone black underlayers fell into disuse in the 1540s. Apparently Lucas Cranach the Younger did not prefer this technique. He avoided it after his father's death, if not earlier.

Creating light and shade

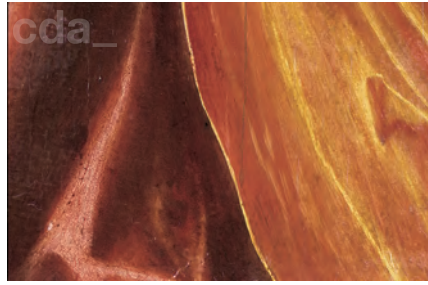
Reproducing subtle visual phenomena requires technical experience and the capacity for minute observation. In order to achieve the intended effects, Cranach played with a multitude of methods for applying paint. Apart from the flesh paint (see below) no other passages reveal a greater diversity of painting materials and techniques than his red draperies. With vermilion, red lead, red iron oxide and at least two red lake pigments, as well as vegetable-derived carbon black, soot black, lead white and lead-tin yellow, the painter was able to depict various shades of red and to differentiate between fabrics made of wool, plant fibres and sumptuous silky material such as velvet, moiré and shot silk. Cranach and his assistants used these pigments on the examined paintings in more than 30 different combinations and sequences of application (cf. figs 132-135). There is usually a multi-layered structure: one or two layers of opaque paint superimposed by red glazes. Table 6 lists the most often applied techniques.³²

Table 6:
Simplified table of layer
sequences in red passages

	Layer sequence			Examples
	First layer	Second layer	Third layer	
A	red lake (+ black)			FR 16 (fig. 95)
B	red lake + white	red lake (+ black)		FR 16, 60 (fig. 68)
C	red	red lake (+ black)		FR 20, 184, <i>Posterstein Crucifixion</i>
D	red	red + black	red lake	FR 16 (figs 84, 134)
E	red	white	red lake (+ black)	FR 4, 34, 89 (fig. 127), 89A
F	red	white + red	red lake (+ black)	FR 10, 35, 49
G	red	white + red + black	red lake	FR 129
H	red	white + black	red lake	FR 18, 31, 89 (fig. 127), 107, 160
I	red + white	red lake (+ black)		FR 1 (fig. 16), FR 8 (fig. 136), FR 9
J	red + white + black	red + red lake	red lake + black	FR 18
K	red + black	white	red lake (+ black)	FR 65, 68, 132 (fig. 130)
L	red + black	red lake		FR 34, 68, 108
M	black	red	red lake	FR 133, 282, 285D (fig. 135)
N	white + black	red	red lake	FR 412B, 433,
O	white + black	red lake		FR 97, FR 366C (fig. 201)
P	red + yellow			FR 16, 47A, FR Sup1C, 214, 215
Q	red + yellow	red lake		FR 78, 89, 285

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Detail from **Virgin and Child**,
1518 (fig. 127).



133 >

Detail from **Altarpiece of the
Holy Kinship**, 1509 (fig. 115).



134

Detail from **Fourteen Helpers
in Need**, c.1505/07 (fig. 34).



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Lucas Cranach the Elder and
workshop, detail from **Portrait
of a Young Lady**, c.1520/30.
London, The National Gallery.



Five groups can be distinguished. They are painted:

- primarily with transparent red lake pigments and lead white (A, B);
- primarily with opaque red pigments and red lakes (C-L);
- over black underpainting (M);
- over *grisaille*-like undermodelling (N, O); and
- primarily with yellow and red pigments (P, Q).

Red velvet painted on black demonstrates modelling from dark to light (M, figs 131, 135), while red fabrics that are painted with lake pigments and lead white are elaborated from light to dark (B, fig. 68). In the group of fabrics modelled with opaque red pigments, the sequence of layers appears to be clearly differentiated: highlights and/or shadows clarify form and volume over a red local tone (C-H, fig. 134). Some of the tonal modelling was achieved directly by the addition of black or white pigment in the first layer (I-L, fig. 136). Red glazes, applied locally or to larger passages, refine the intended appearance on nearly all the robes. As a rule, Cranach painted in accordance with Dürer's stipulation: 'You must paint in such a way that a red object is overall red and yet sublime...and not in such a way that someone can say: look how beautifully red the garment is in one part but has white paint or pale spots on another... The shadow must also be done in such a way that no one can say that a lovely red has been botched with black...'³³

Cranach employed a variety of techniques simultaneously to depict red drapery on his paintings. Three different techniques can be distinguished on the *Crucifixion* (c.1500, fig. 17) and on the *Fourteen Helpers in Need* (c.1505/07, fig. 34), while on the *Altarpiece of the Holy Kinship* (1509, fig. 115), at least four techniques are present. On the *Fourteen Helpers in Need*, Cranach underpainted the cloak of St Christopher with red iron oxide, red lead and vermilion (fig. 84), and the folds are defined with red iron oxide, vermilion and black paint. Shadows are deepened in black and illuminated edges are indicated with vermilion. Finally, luminosity was heightened by a red glaze applied over large passages (D, fig. 134). In contrast the robes of St Panthaleon, the infant Christ and the angel on the verso are given shape with lead white mixed with red lake pigments (B, figs 95, 187). The underlying paint is an opaque pink, layered over with semi-transparent shades and, finally, translucent red glazes. A higher content of white emphasises the folds and rich red glazes accentuate the shadows. Here the specific red lake pigment used for final glazing differs from that used in the underpainting (see p. 139). St Erasmus' mitre and St Dionysius' robe are again worked up in a different technique (figs 34, 95). Here the painter achieved the velvety effect simply with red glazes over black washes of the underdrawing (A). On the reverse of the same panel, the inner lining of the robe of the angel on the left, painted with red iron oxide and lead-tin yellow in yellow-red tone, demonstrates Cranach's extensive repertoire (P). On the *Altarpiece of the Holy Kinship* (1509) only one of these techniques (D) is used in a similar fashion. In this instance, it is combined with three other forms of modelling for red drapery (fig. 133). These different systems thus are very flexible and allow for great subtlety. However, the multi-layer structure, the negative impact of vermilion and red lakes on the drying time and the rapid completion of the painting increased the danger of crack formation. This might have been the reason why St Margaret's robe on the right shutter of the *Altarpiece with the Martyrdom of St Catherine* (1506) was obviously scraped off and redone. Distinct drying cracks are still present in some patches of paint, which have not been removed.

Moiré folds were drawn with paint or incised with a pointed tool while the paint was still wet.³⁴ So-called pomegranate patterns were laid, both light and dark, on top of the local shade. In the particular case of the portrait of Anna Cuspinian (c.1502/03, figs 19, 96) Cranach chose a lead-white-based shade and glazed it with red lake. On other works, the patterns were formed with red pigments and subsequent glazes,³⁵ with mixtures of red pigment and glazes³⁶ or only with deep-red lakes.³⁷ On a few of the earlier works, the patterns follow the formations of the folds. More often, however, they span the fabric like a

net without regard for the folds. Far removed from reality, the semi-opaque application of paint on the portrait of Johann Friedrich I (1526) even creates an optical distance between the pattern and the fabric.

Like the red shades, green passages also reveal a complex layer structure. In general there is evidence of some three to five paint layers (fig. 111). Even on the *Fourteen Helpers in Need* (c.1505/07), which appears to have been completed relatively quickly, the angel's green robe on the verso has been modelled with at least five separate applications of paint. However, compared with the red sections, there is less variation in technique and colour shade. The simultaneous use of several green pigments or mixtures of green glaze and lead white have not as yet been identified. The modelling also went from light to dark and vice versa (fig. 112). Occasionally both methods were used alternately. Frequently one or more glazing layers were used to give saturation and brilliance to light opaque paint (fig. 111).³⁸ Dark green or black underpaint³⁹ of velvet fabrics and landscapes were also followed by modelling with opaque green as well as translucent glazes (fig. 222). Copper acetate, the green pigment used most frequently, occurs in both layers (see pp. 148-149). Light paint contains additions of lead-tin yellow and lead white, while darker paint usually incorporates carbon black of vegetable origin. In far distant landscapes slight traces of red or brown colourants as well as traces of azurite are occasionally present. Mixtures to achieve a green colour, like with azurite and lead-tin yellow, were not among the characteristic techniques of the Wittenberg workshop.⁴⁰ One green paint sample, though, from the green background of the portrait of Count Philipp von Solms (1520), contained significant amounts of yellow ochre. It may be significant that this painting was produced in the workshop of one of Cranach's earlier pupils, Hans Döring.

On several early works the deep blue areas of the picture show a heightened relief-like effect.⁴¹ In these cases Cranach achieved deep blue predominantly with thick layers of azurite, which absorb the light, instead of adding black. This contrasts with his later technique whereby the depth of tone was often achieved by using a *grisaille*-like or black underpaint. The thickness of paint application could be reduced by using particularly good qualities of finely ground azurite and the occasional addition of black pigment, as this assisted the integration of the level of dark blue passages with other areas of the picture. The effect of lightening and optical differentiation of blue robes is based mainly on the mixture of azurite (in exceptional cases, ultramarine) and lead white (figs 147-149). The use of various shades of azurite or azurite of different particle sizes to model light and shade was not found.⁴² Red lakes are rarely

used to add a purple hue. Because of the limited choice of pigments, the range of blues used in drapery remains small. The handling properties of each pigment may also have influenced the colour composition of the paintings. The *Princes' Altarpiece* (c.1510) represents the high point: on the central panel the Virgin's cloak, deep blue in colour, is given nuance with multi-layered ultramarine glazes. This contrasts with the sleeve of St Catherine's robe, which is light blue highlighted with white folds, as well as with the blue border of St Barbara's shoulder trimming, which is glazed with a red lake. St Bartholomew's robe on the left wing is a light, wet-in-wet modelled mixture of ultramarine, lead white and a red lake pigment (fig. 4). The underrobe of St James the Greater represents an intermediate stage between the two techniques described above. Cranach delineates various fabrics by means of different light/dark contrasts as well as by the deliberate use of opaque mixtures of paint to contrast with glazes of ultramarine and red lake. This diversity in technique is by comparison the exact opposite of not only the *Neustadt Altarpiece* (1511-13, fig. p. 2), but of practically all other later works, where the approach is rather standardised. With increasing workshop production, the variety of techniques seem to have been sacrificed in the interest of more rational methods that could be easily communicated between master and pupils.

What are called 'shot fabrics' is the result of the differing colours of the warp and the weft materials. Therefore, to paint *changeante* effects, at least two colours are required. In those places to be averted from the eye or the light, they are not simply darkened but distinctly shaded with a different colour.⁴³ In accordance with this approach, Cranach modelled the dress of an angel on the *Holy Family (Rest on the Flight into Egypt)* (1504) in pink and blue (fig. 89). A little later, on the *Fourteen Helpers in Need* (c.1505/07) and the *Altarpiece with the Martyrdom of St Catherine* (1506), he shaded yellow with red. Although this manipulation of colour may not necessarily be intended to produce the shot effect, since gold cannot be shaded with gold and folds are often modelled with red glazes, it follows the same pictorial practice.⁴⁴ In his early works, Cranach preferred to shade yellow drapery with brown; around 1509 he started using grey and black.⁴⁵ On the *Altarpiece of the Holy Kinship* and the *Resurrection* (c.1509) he distinguishes different yellow fabrics with red-brown (fig. 113) or grey folds (fig. 106). He used these yellow-red and yellow-brown colour combinations consistently for many years to come (cf. fig. 121). According to Groschopf in the second decade of the sixteenth century, there was a shift in German painting concerning the endeavour to achieve a beautiful play between fabric colours gave way to achieving the perfect depiction of

shot silk.⁴⁶ There is a short gap between the first period at around 1500 and the second starting after 1510 in which *changeante* effects are less important. Following this trend, Cranach introduced modelling in a red-green colour combination in about 1515 on the *Holy Trinity* and the *Slaughter of the Innocents* (FR 70).⁴⁷ Pink-blue⁴⁸ and yellow-blue⁴⁹ depictions of shot fabrics followed shortly thereafter. With only slight modifications, these techniques persisted as part of the standard repertoire of his workshop for several decades. Fabric depictions produced with the three colours green, red and blue⁵⁰ are preserved for example on the Darmstadt *Virgin and Child* (c.1516/18) and a retable wing with St Roch (c.1520, FR 133A) as well as the panel of *Christ and the Woman Caught in Adultery* (c.1520, FR 129).

Examination reveals that Cranach's search for fashionable forms of expression was the drive behind the development of new techniques with which to model light and shade. By varying the use of painting materials common in the sixteenth century, he obtained very different optical effects. Direct blending of pigments and lakes creates an opaque quality and contrasts with the appearance of colours produced by application of the multilayer system. A comparison between the *Princes' Altarpiece* (c.1510) and the *Neustadt Altarpiece* (1511-13) reveals that it was not only the more expensive pigments but also more refined and lavish painting techniques that were reserved for commissions of greater importance. The interpretation of this observation counters the hitherto common but insufficient distinction between work executed by the master and that carried out by workshop assistants. As the method of painting seems to have been related to the cost of the commission, it is thus necessary to differentiate between more or less time-consuming and more or less complex techniques. This would correspond to Dürer's much-quoted statements on differences in the quality of execution of works of art: 'I will produce a good number of ordinary paintings in the course of one whole year, such that no one will believe it possible that a single person could have done them. It might be possible to make some earnings from such paintings but laboriousness does not come into it.'⁵¹ As workshop production increased, the search for ways to expand creative resources was followed by concentration on techniques that could be reproduced according to set formulae. Clearly casting about for effects, the pupil who executed the *Altarpiece of the Virgin* in Halle (1529) used not only the black underpainting technique but also *changeante* effects, and far more frequently than Cranach had ever employed these signature techniques.

Brushwork

The inner tension of Lucas Cranach the Elder's paintings are the result of his capacity for poignant composition and the interplay of colour and tonal values. Equally important are the translucency and gloss of the paint layer, as well as the method in which the paint is applied. In the panel paintings, gently dispersed passages of paint contrast with clearly visible brushwork, stippling application is juxtaposed to a stroking or hatching technique, slightly 'pastose' touches of paint accentuate enamel-like smoothness and barely differentiated passages of paint contrast with those in distinct graphic detail (figs 136-146). The intermediate forms are diverse. For example, before they have dried, the clear contours of characteristic pebble-covered areas of ground are dispersed with a soft hair brush (fig. 139). On the *Crucifixion*

136
Detail from **Portrait of a Viennese Scholar**, 1503 (fig. 181).



137 >
Detail from **Altarpiece of the Holy Kinship**, 1509 (fig. 115).



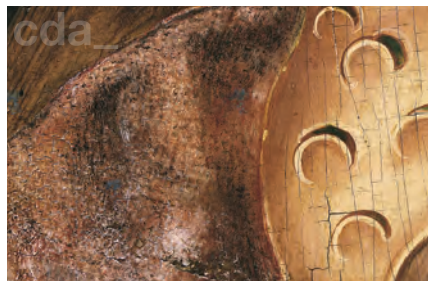
138
Detail from **Princes' Altarpiece**, c.1510 (fig. 4).



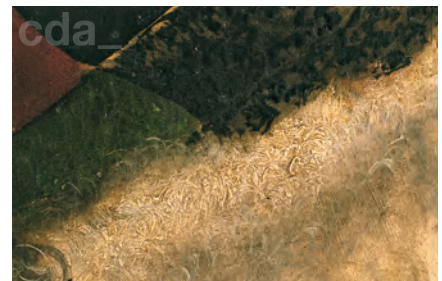
139 >
Detail from **Venus**, c.1518. Ottawa, National Gallery of Canada.



140
Detail from **Martyrdom of St Catherine**, c.1508 (fig. 40).



141 >
Detail from **Christ as the Man of Sorrows**, c.1505/07 (fig. 187).



142

Detail from **Virgin and Child**,
1518 (fig. 127).

143 >

Detail from **Judgement
of Paris**, c.1512/14 (fig. 78).

144

Detail from **St Valentine and
a Kneeling Donor**, c.1502/03
(fig. 33).

145 >

Detail from **Cardinal
Albrecht of Brandenburg as
St Jerome**, 1527. Staatliche
Museen zu Berlin, Preußischer
Kulturbesitz, Gemäldegalerie.

146 >>

Detail from **Altarpiece
with the Martyrdom of
St Catherine**, 1506 (fig. 77).



(c.1500), Cranach applies paint in stroking, hatching and stippling fashion. A little later on the panel with *St Jerome* (1502) and the *Crucifixion* (1503), the paint for the sky is stippled with a blunt bristle brush and subsequently dispersed with a softer hair brush. The stippling of the paint here helps to apply the crystalline blue pigment more evenly, as well as easing the smooth modelling of colour and tonal values. In painting blue drapery, the stippling technique serves to elaborate light and shades, as it does in flesh tones (see p. 206). By contrast, the stippling from a blunt bristle brush on the *Portrait of a Viennese Scholar* (1503) differentiates the material of the red *chaperon* from the pomegranate-patterned coat of the same colour by means of producing a different surface type (fig. 136). Cranach uses the brush quite specifically to emphasise the material qualities of the depicted substance. The stippling technique conveys softness to textiles,⁵² smoothness to flesh tones, 'airiness'

to the sky and roughness to architectural stone. In addition, the blunt bristle brush in landscape painting produces a suitable structure to depict moss and tree bark (fig. 143). The alternating stroking and stippling application of paint was for many decades one of the techniques characteristic of the Wittenberg workshop and, as such, contributed greatly to the high regard for the quality of this workshop's paintings. It was not, however, Cranach's own invention: for example, Stephan Lochner and Robert Campin were already producing soft surfaces of fabrics using a similar stippling technique in the early and mid-fifteenth century.⁵³ Contemporary artists such as Dürer and Altdorfer,⁵⁴ however, applied the blunt bristle brush far less than Cranach. Dürer used it a few times to model early portraits,⁵⁵ but later on stroking and hatching applications of paint predominated his work.

On his earliest-known panel, the small-format *Crucifixion* (c.1500), Cranach inserted highlights in flesh and drapery with parallel hatching using a pointed brush. Later the painter was to avoid this graphic technique.⁵⁶ When he applied lapis lazuli glazes to the *Altarpiece of the Holy Kinship* of 1509, this hatching may have been a new artistic impulse gained during his journey to the Netherlands (fig. 147). Yet only a short time later, Cranach reverted to 'his' technique of stroking and stippling for the modelling of blues on the panel of the *Holy Kinship* (c.1509/10, figs 148, 149).

The depictions of brown fur differ in the degree of abstraction as well as in the use of techniques for applying the paint (fig. 4); modelling of light involved either a light-coloured ground not fully covered with paint⁵⁷ or light mixtures of paint⁵⁸ applied on darker translucent to opaque underlayers. The individual hairs of the fur are drawn with different colours from black-brown to

147

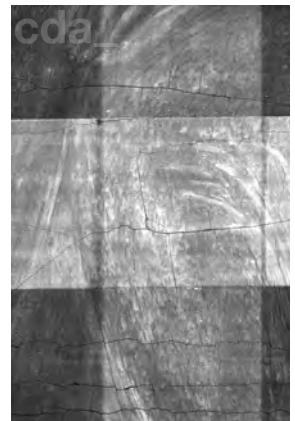
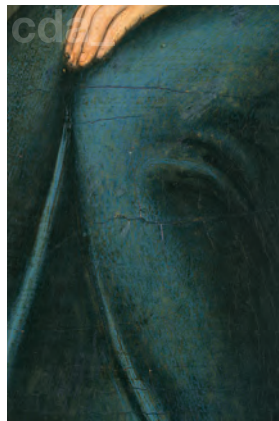
Detail from **Altarpiece of the Holy Kinship**, 1509 (fig. 115).

148 >

Lucas Cranach the Elder, detail from **Holy Kinship**, c.1509/10. Vienna, Gemäldegalerie der Akademie der bildenden Künste.

149 >>

Holy Kinship, c.1509/10 (fig. 148). Detail of X-radiograph.



grey-white. At first, like Dürer,⁵⁹ Cranach used a small, pointed hair brush. Then around 1510,⁶⁰ he switched to a larger brush with a split tip, which was to allow him to paint not only individual strands of hairs but whole tufts, corresponding to his quest for brilliant efficiency.⁶¹ Depending on the degree of execution only individual strands of hair were added with the pointed brush. With the creation of ornamental parallel lines, the split brush developed from a technical aid to a device that facilitated an artistic means of expression. Exploiting his technical experience and interest in experimentation, Cranach occasionally elaborated the texture of fabrics with a striped application of paint. On the *Altarpiece of the Holy Kinship* (1509), the folds of the brocade curtain have been modelled with a stiff bristle brush over brown underpainting in a matter that only partially covers it (fig. 137). On the *Duke Heinrich the Devout of Saxony* (1514), a half-covering striped application of paint over light-coloured ground imitates the texture of the fabric of a brown coat lining. The prerequisite to achieve this effect is a less-absorbent ground onto which the medium-rich paint is scumbled with a stiff bristle brush not in a covering film but rather 'scratched on'. Cranach used the same striped application of paint on the *Virgin and Child* (c.1512/14) to create the brickwork, as well as on other paintings to depict tree trunks.⁶²

It is on the *Portrait of a Viennese Scholar* (1503) that Cranach scratched the individual forms of brocade pattern into a red glaze, using a pointed tool, thereby revealing the lighter-coloured underpainting. The technique is known as paint *sgraffito*, which is derived from the long tradition of gold- or silver *sgraffito*.⁶³ A pointed wooden stick, brush handle or any other suitable implement would be used to scratch lines or shapes into still-wet paint, thereby partially revealing a lower layer of paint or ground, the varying tone of which creates a contrast with the uppermost layer. Around 1440, Lochner used this technique, incising a 'dark' surface to create light-coloured ornamentation in the blue of the robe of the *Veilchenmadonna* (c.1440).⁶⁴ Cranach used a similar technique on a vessel in the panel with the *Adoration of the Magi* (FR 49). Since the technique here was only employed locally for accentuation, it appears more as an impromptu whim than a planned use of *sgraffito*. This is different in the case of the Munich *Portrait of Cardinal Albrecht of Brandenburg Kneeling before Christ on the Cross* (c.1520/25, FR 183), where pattern lines incised into the red lake glaze of the moiré robe imitate the pressed folds of silk. One of Cranach's pupils also used this technique on the *Altarpiece of the Virgin in Halle* (1529) to depict the cardinal's robe. Similar ornamental patterns occur on the *Mass of Pope Gregory* (FR Sup 12), *St Martin* (FR Sup 7) and *St Erasmus* (FR Sup 7a), all of which have been attributed to the Master of the Pope Gre-

gory Masses. Speculation remains as to whether the use of *sgraffito* indicates that the Munich panel and Halle altarpiece should be attributed to the same painter, or whether Cranach's pupils learnt this technique while still in the workshop in Wittenberg. One could deduce from these observations that the spontaneous and rare use of this effect on works carried out by Cranach himself is a reflection of his creative impulse, whereas pupils used *sgraffito* as a given technique and a way of casting about for effects.⁶⁵

In addition to brushes and pointed tools, Cranach, along with his contemporaries, including Dürer, Bellini and Leonardo,⁶⁶ occasionally used his fingers or the palms of his hands to manipulate the paint (fig. 146).⁶⁷ On various works such as the *Crucifixion* (1503), the panel with the *Fourteen Helpers in Need* (c.1505/07) and the *Altarpiece of the Holy Kinship* (1509), hands are used to finely disperse glazes. In flesh tones, the painter spread opaque layers as well as glazes in this way. Examples of this are the *Princes' Altarpiece* (c.1510), the *Duke Heinrich the Devout of Saxony* (1514) and the *Count Palatine Philipp of the Rhine* (c.1520/22). As yet there has been nothing similar found for comparison with the controversial portrait of Elector Friedrich III in Nuremberg, where extensive use is made of fingers to model the flesh tones. On the *Virgin and Child* (1518) the opaque lead white paint of the veil has been dispersed with the hands and on the *Portrait of a Gentleman of the Rechenburg Family* (1535/40)⁶⁸ the intensity of the white vents in his garment is reduced by manually thinning it. The portrait of Johannes Cuspinian (1502/03) is again different: here Cranach pressed his fingers into the wet paint in order to imitate bark on tree trunks. The imprint of the skin created a fine surface texture, a technique that is barely discernable on any of the later works⁶⁹ but which, interestingly, has a parallel in Dürer's *Lamentation of Christ* (c.1500).⁷⁰

Elaborating the flesh tones

Previous interpretations of the most characteristic of all of Cranach's techniques – the flesh painting – have been strongly influenced by the descriptions of 'traditional painting technique' (*altmeisterliche Maltechnik*) from Doerner and Wehlte. Wolters describes what he calls 'white underpainting' (*Weißuntermalung*) of the faces.⁷¹ Gronau⁷² and Barkowsky⁷³ perceive that the flesh was modelled over an ochre tone. Riemann corrects this error but speaks of a shortening of 'the medieval practice of painting in layers' (*spätmittelalterliche Schichtenmalerei*),⁷⁴ wrongly assuming that Cranach painted the saints on the *Fourteen Helpers in Need* (c.1505/07) in just one working session. In 1994, Grimm again repeated the older school of thought that flesh tones were modelled over a reddish-ochre *imprimatura* and then came to

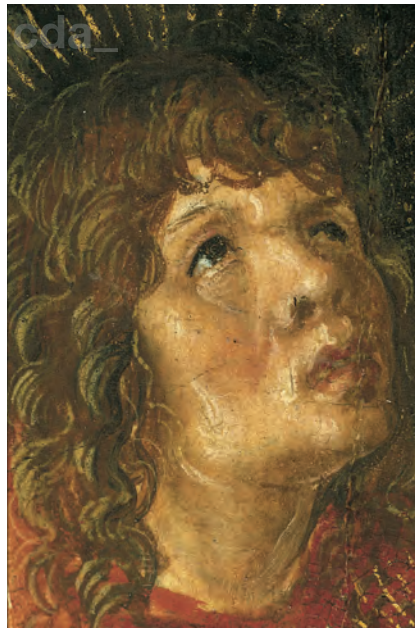
the conclusion that only a very few of Cranach's portraits are modelled with 'surface paint' (*Oberflächenfarbe*).⁷⁵ In Sandner, *imprimatura* and local tone merge: 'On almost all his panels Cranach began with the application of a basic flesh tone. In his early work this took the form of a finely stippled application of a translucent ochre brown local tone, the light-value of which was varied according to need. This was followed by a first modelling of the light by means of lead white containing coloured pigment applied wet in wet.'⁷⁶ Last but not least, Giebe and Schölzel discern a 'structuring ochre underpainting' (*gliedernde Ockeruntermalung*) also under flesh tones.⁷⁷

The following pages will discuss these assumptions and compare them with results of this investigation into Cranach's painting of flesh tones. The new findings expand and rectify older descriptions and reveal the diversity of his techniques. There are two distinctly separable lines of tradition for painting flesh tones that can be discerned in medieval painting. The modelling of flesh on a coloured underlayer of green or brown is presumed to be of Byzantine origin and was widely used in countries such as Italy, Bohemia and Spain. In this tradition, volume is created preferably with semi-opaque and opaque flesh tints on a midtone or dark ground.⁷⁸ The other predominant technique in medieval painting north of the Alps was modelling by varying the colour and light intensity of the flesh colour over a light, mainly white, ground or *imprimatura*.⁷⁹ In the first described tradition, modelling normally proceeded from dark to light, in the latter it was the other way around, from light to dark. Contrary to most accounts published to date, Cranach used the second technique: he formed flesh tones on a white- or light- pink-toned ground. On close inspection, however, both techniques were used simultaneously to some extent. On a number of paintings, there is a remarkably free and thick first application of light flesh paint, then Cranach continued to model greyish or brownish shadows into this layer. Highlights containing high proportions of lead white were used to clarify the form and the illumination. Some faces were completed with a few glazes, other areas of flesh were instead built up labouriously in layers (fig. 173). Sometimes highlights were applied over brown modelling intermediate layers,⁸⁰ with the formation of volume proceeding both from light to dark and from dark to light.

Almost in accordance with the instruction given in the Strasbourg Manuscript,⁸¹ the essential pigments in Cranach's flesh paints are lead white, vermilion, vegetable-derived carbon black, ochre, red-brown iron oxide and a brown organic colourant. Cool lights or half shadows occasionally contain azurite.⁸² Red lakes in glazes have been identified, and more rarely in opaque

150

Detail from **Crucifixion**, c.1500
(fig. 17).



151 >

Crucifixion, c.1500 (fig. 150).
Detail of X-radiograph.



mixtures. Lead-tin yellow was not often detected in flesh paint.⁸³ Significant amounts of calcium salts are contained in almost all flesh paints examined (see p. 133). The different flesh tints are mainly based on mixture of two to four pigments, and, more rarely, five to six pigments.

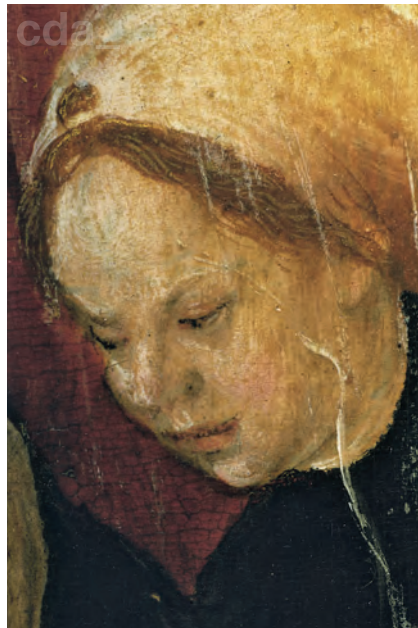
Cranach differentiates faces within a painting by different pigment combinations, varying layer sequences and changing brushwork. On the Vienna *Crucifixion* (c.1500), light-coloured flesh paint has been swept beyond the outlines of the face of John the Baptist, then modelled with brown glazes and confidently highlighted with a pointed brush (figs 150, 151). By contrast, the flesh tints of the women have been built up in hatching fashion, mainly with bright and cool-toned paint (figs 152, 153), using thin glazes to smooth out the light modelling. The face of the thug on the left edge of the picture instead is formed predominantly by brown glazes over a barely differentiated underpainting. An obvious example of artistic forethought is revealed on the panels with St Valentine and St Francis (c.1502/03, figs 32, 33). Flesh tones of the different characters are not only differentiated by final glazes and light accents, they also differ in their layer sequence. The face of St Valentine is strikingly rich in different-coloured shades. On a barely modelled light underpainting we find brown shadow tones, red glazes, light blue half-shadows, pink highlights

152

Detail from **Crucifixion**, c.1500
(fig. 17).

153 >

Crucifixion, c.1500 (fig. 152).
Detail of X-radiograph.



154 (page 197)

Detail from **Portrait of a
Viennese Scholar's Wife**,
1503 (fig. 26).

155 > (page 197)

Detail from **Anna Cuspinian**,
1502/03 (fig. 19).

156 (page 197)

Detail from **Portrait of
a Viennese Scholar**, 1503
(fig. 181).

157 > (page 197)

Detail from **Johannes
Cuspinian**, 1502/03 (fig. 19).

and white reflections. The donor's face appears in comparison to be less differentiated in terms of colour but, in contrast to the face of St Valentine, the X-radiograph reveals a distinct virtual relief reflecting both details of form and illumination of the face; the individual forms have been elaborated in several layers with light-coloured paint containing large quantities of lead white. In the epileptic, by contrast, the warm-toned brownish flesh tints consist mainly of brown glazes and distinct highlights (fig. 144). These highlights are even more evident in the face of St Francis (fig. 97). The painting technique reflects the character and the age of those portrayed and their variety contributes to the tension of the picture.

Cranach also varied his technique for reasons of scale, not just for pictorial effect. Comparison between the *Crucifixion* (c.1500) and the painted wings reveals variation in technique depending on the size of the picture. The earliest female portraits also demonstrate differences. Here, Cranach deployed different techniques to depict the same subject matter in almost the same scale (figs 154-157). Comparing the portrait of Anna Cuspinian (1502/03, fig. 155) with the *Portrait of the Wife of a Viennese Scholar* (1503, fig. 154), the application of flesh paint on the latter is noticeably thin. The underdrawing is clearly visible today in normal light. The eyebrows have been traced in the still-wet flesh-toned paint, i.e., there was no waiting for it to dry. In this case, tech-



158

Detail from **Christoph Scheurl**, 1509 (fig. 38).

159 >

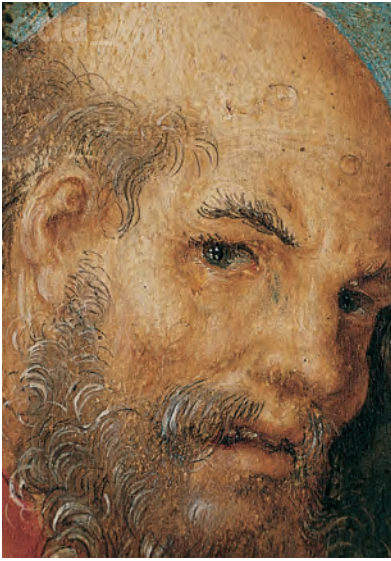
Christoph Scheurl, 1509 (fig. 158). Detail of X-radiograph.



nical examination reveals the different speed at which the paintings were executed. Consequently, comparable features of style within these two portraits are not related to the use of a comparable technique. Efficiency could also have been a reason for modelling the flesh tint of *St Jerome* (1502) on a pink-coloured ground with bright, opaque paint and translucent shadow glazes (fig. 125). There is no doubt that volumes could be formed more easily on the mid-tone flesh tint than on white ground. In this respect, the pink-coloured ground or *imprimatura* would have expedited the working process (see p. 102).

Common features of the early works are that the eyes have been omitted when modelling the flesh and that the eyeballs are painted in stereotypical fashion with lead white and blue pigment.⁸⁴ When creating reflected light in the pupils, Cranach relied not only on observing nature but also on common formulae: there is no other way of explaining the light in Mary and Joseph's eyes on the *Holy Family (Rest on the Flight into Egypt)* of 1504. It is divided into four and thus reflects the mullion and transom of a cross window although the figures are depicted in a landscape (fig. 160). A similar formulaic execution can be found on several other, later works.⁸⁵

Comparative examination of the X-radiographs of his early Wittenberg works elucidates Cranach's preoccupation with developing his working methods, specifically in order to achieve the desired optical effects rapidly. On the



160

Detail from **Holy Family (Rest on the Flight into Egypt)**, 1504 (fig. 176).

161 >

Detail from **Princes' Altarpiece**, c.1510 (fig. 4).

Altarpiece with the Martyrdom of St Catherine (1506) a white *imprimatura* covers and smoothes the black brush underdrawing, thus facilitating alterations to the faces; these alterations are visible in the X-radiographs. Modelling in light colours, yellowish, reddish, brownish and greyish semi-transparent shades, achieves the desired effect to differentiate sex, age and status of the persons depicted. In X-radiographs, the faces appear with different virtual relief formed by differing paint thickness. This diversity may indicate a varying length of the working process and possibly relates to an inconsistent use of portrait studies, as a straight copy of a painted model would have allowed the intended expressions to be achieved more directly (see chapter V *Portrait of a Young Lady* and figs 247, 248).

On the panel with the *Fourteen Helpers in Need* (c.1505/07), the washes with a black drawing medium that model shadows create a close link between the underdrawing and the painting process (figs 90, 91). Black ink, the white *imprimatura* and thin, slightly translucent flesh tones were used to create grey half shadows. No similar modelling has been observed on any other of the works examined. On this panel the light modelling was achieved either by a stippling application of paint or with softly flowing strokes of the brush without necessarily being related to the anatomical form. The paint was subtly worked up into bright pink flesh tints or shaded to pale tones, in the latter case using azurite. On the X-radiographs it becomes particularly evident that the smooth shapes of womens' faces were highlighted by stippling the paint

with a blunt bristle brush. The intended effect was achieved with a few brown and pink glazes either spread on or hatched. Last, reflections of light, very deep shadow folds and contour lines were emphasised with a pointed brush.

There is a distinguishing feature in the manner and sequence of the application of flesh paint on the 1509 *Altarpiece of the Holy Kinship* (Frankfurt) and slightly later on the 1509/10 *Holy Kinship* (Vienna). Although the figures on the Frankfurt altarpiece are depicted on a larger scale, the only brushes employed were pointed ones, while on the smaller Vienna *Holy Kinship*, the paint was applied more fluently and rapidly with broader brushes. Here the size of the painting did not seem to have an impact on the manner of applying paint. It was presumably the superior standing of a commission from the elector, together with experiences from his recent travels, which led Cranach to choose not only more precious – thus more expensive – pigments, but also to adopt more refined and time-consuming painting techniques for the Frankfurt altarpiece.

The X-radiographs of *Johannes Cuspinian* (1502/03), the *Portrait of a Viennese Scholar* (1503), *Christoph Scheurl* (1509, fig. 159) and the *Portrait of a Man with a Fur Hat* (c.1510, fig. 14) demonstrate Cranach the Elder's rapid and remarkably free technique. In the application of light flesh paint, brush strokes are clearly visible.⁸⁶ The faces were completed with a few glazes and highlights (fig. 156). In these cases, the artist can certainly be characterised as a 'fast painter' in comparison with Dürer. By comparison with the London portrait of Johann the Steadfast (1509, figs 162, 164), the smaller-scale depiction of the prince on the right shutter of the *Altarpiece of the Holy Kinship* (1509, fig. 115) is modelled with stronger lights and shades, but the X-radiograph reveals a less distinct virtual relief. In the *Altarpiece of the Holy Kinship*, light modelling is achieved by stippling and hatching, whereas the portrait of Johann the Steadfast (1509) is characterised by impulsive strokes of paint (fig. 162). The X-radiograph of *Johann Friedrich I the Magnanimous* (1509), which is yet again different, shows a more pronounced virtual relief (figs 163, 164). However, these differences in the appearance of the paint on X-radiographs are not sufficient to enable conclusions to be drawn about the level of participation of either the master or the workshop or both (see p. 298).

Sandner perceives a change in Cranach's style of work around 1510. As the reason for a more consistent 'internal working up' (*inneren Bau*) of the light, he suspects renewed contacts with Franconian painting or observations made on his visit to the Netherlands.⁸⁷ In fact, the flesh tones in the X-radiographs

162

Johann the Steadfast, 1509
(fig. 164). Detail of
X-radiograph.

163 >

**Johann Friedrich I the
Magnanimous**, 1509 (fig. 164).
Detail of X-radiograph.



164 (pages 202-203)

Lucas Cranach the Elder,
**Johann the Steadfast and
Johann Friedrich I the
Magnanimous**, 1509. Panels,
painted surface 41.3 × 31 cm
and 42 × 31.2 cm. London,
The National Gallery.

of the central panel of the *Princes' Altarpiece* (c.1510) are clearly distinguished by a particularly marked virtual relief for which no equivalent has been found in the other examined works (fig. 165).⁸⁸ However, it is not appropriate to generalise on the basis of this one example, because the X-radiographs of the princes and saints on the painted wings, or those of the nearly contemporary *Virgin and Child under the Trees* (c.1510, fig. 167) and the *Salome* (c.1510) again contrast with the female saints on the *Princes' Altarpiece*; their virtual reliefs are less pronounced. So, the portrait of the Virgin on this altarpiece is remarkable for its extremely prolonged working process in the course of which the desired appearance was only achieved as a result of multilayered application of paint. As in the case of the *Altarpiece of the Holy Kinship* (1509, fig. 115), the extensive use of ultramarine here implies an important commission. It is likely that use of this technique for the face of the Virgin reflects not only Cranach's intent, as well as his experiences gathered during his travels and/or part of the competition with contemporary artists, but also may well be influenced by the wishes and the taste of the commissioners and possibly even the involvement of a workshop assistant.





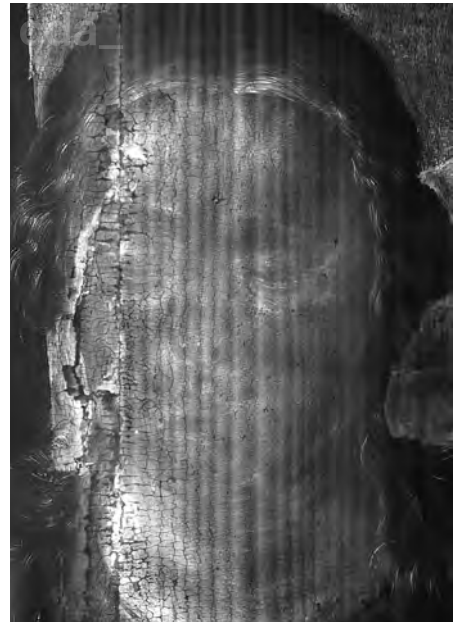
165

Princes' Altarpiece, c.1510
(fig. 4). Detail of X-radiograph.



166 >

Lucas Cranach the Elder and workshop, **Adoration of the Magi**, c.1520/25. Naumburg, Evangelische Stadtkirche St. Wenzel. Detail of X-radiograph.



167

Lucas Cranach the Elder, **Virgin and Child under the Trees**, c.1510. Formerly Wrocław, Cathedral. Detail of X-radiograph.



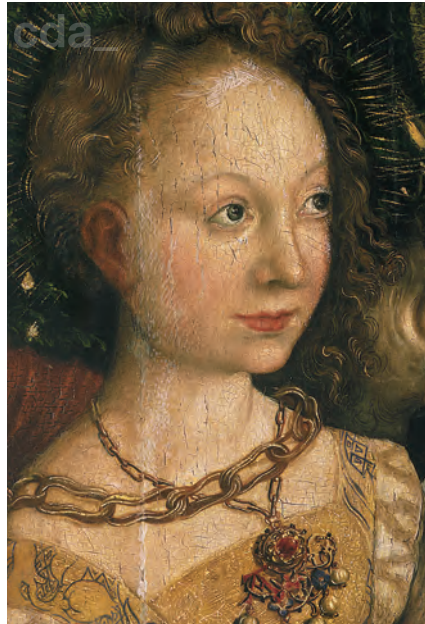
168 >

Lucas Cranach the Elder and workshop, **St Barbara**, c.1516. Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister. Detail of X-radiograph.



169

Detail from **Altarpiece with the Martyrdom of St Catherine**, 1506 (fig. 77).



170 >

Altarpiece with the Martyrdom of St Catherine, 1506 (fig. 169). Detail of X-radiograph.

171

Detail from **Martyrdom of St Catherine**, c.1508 (fig. 40).



172 >

Martyrdom of St Catherine, c.1508 (fig. 171). Detail of X-radiograph.

To characterise smooth female faces, light flesh paint is often stippled with a short, blunt bristle brush (fig. 168). This technique allowed the artist to create a smooth, continuous surface with gradual, imperceptible shifts from highlight to shadow. Flesh tones modelled in this way appear in the X-radiograph as smooth but pronounced virtual relief. On higher magnification, the relief dissolves into very small islets of paint. Impressive examples are the two pairs of painted wings with Sts Barbara and Catherine (c.1511 and c.1516) and the *Virgin and Child with Saints* (1516). On the latter panel, stippled highlights alternate with warm-toned brownish-grey shadows applied in strokes (fig. 173).⁸⁹ It was no doubt difficult for Cranach to convey his rather impulsive style of painting to the workshop production. The stippling technique must have been particularly easy to copy for his collaborators and became the predominant method for modelling flesh tones in the second decade. It seems that the technique Cranach taught his workshop members was rather a slow one, but efficient in guaranteeing a homogenous workshop production. The highest-quality works of later decades suggest that Cranach himself used this technique less schematically.⁹⁰

173

Virgin and Child with Saints,
1516 (fig. 22). Cross-section
from flesh paint. The lowest
layer is the undermodelling of
lead white, vermilion, carbon
black of vegetable origin and a
few particles of azurite, followed
by a thin glaze containing some
brownish organic colourant,
a light flesh paint with lead
white and vermilion, another
brownish glaze and finally a
highlight and some overpaint of
a later date. The chalk ground is
not present.



As early as 1514, black-grey shadow tones were stippled with a blunt, stiff brush on the *Duke Heinrich the Devout of Saxony* (fig. 241). The stippling of opaque shadows is one of the techniques characteristic of the 1520s.⁹¹ Thus the sequence of layers is simplified and drying times are reduced when compared with the medium-rich glazes, which were slow to dry. This practice is frequently associated with serial workshop productions. Other contemporary paintings, like the *Portraits of a Man and a Woman* (1522), *King Christian II of Denmark* (1523), *Johann Friedrich I the Magnanimous* (1526) and the panel with

Adam and Eve (1526), are modelled not only with grey shadow tones but also with brown, warm-toned glazes, covering wider areas of flesh tones.⁹² Here, shadow colours applied in a hatching manner⁹³ complete the rich spectrum of techniques.

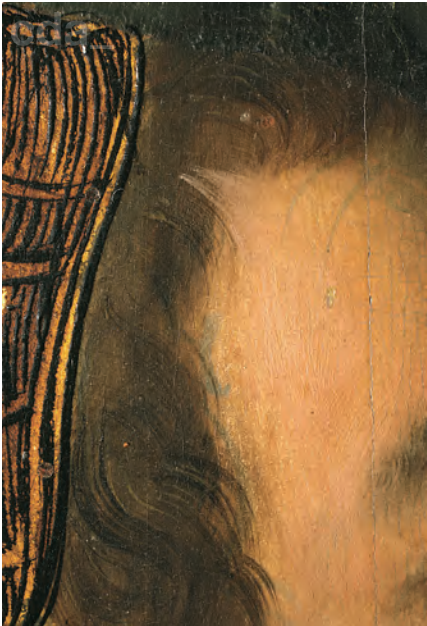
Deviating from Cranach's earlier approach in workshop productions from the second decade such as *Virgin and Child with St Anne* (c.1515/16) or the Darmstadt *Virgin and Child* (c.1516/18), the flesh modelling was first applied with strongly contrasting highlights and shadows, their transitions subsequently harmonised by the application of mid-tones (see p. 290). This practice might establish a link to the *grisaille*-type undermodelling.

Sequence of painting

For many years, there has been little doubt that Cranach painted following a fixed sequence of operations. Riemann suspects that first the flesh tones, then the robes and lastly the black background were painted,⁹⁴ a view that is shared by Barkowsky⁹⁵ and Gronau.⁹⁶ Sandner initially assumed that the painter always began with the background leaving out the large figures,⁹⁷ but later he reverts to the earlier explanation given by Riemann.⁹⁸ Grimm for his part perceives the first step in the working process as being the 'blocking in of passages of colour by omitting light-coloured details (faces, areas of skin)', which is then followed by 'fine modelling' and 'finely-drawn surface details'.⁹⁹ All works examined as part of this research reveal that Cranach's usual practice followed neither of these assumptions. Starting with the flesh painting, he gradually worked up the whole image rather than completing one detail after another. Since no incomplete works have survived from the Cranach workshop, the evidence for this must be deduced from the overlapping of contours in the finished paintings themselves.¹⁰⁰

In Cranach's paintings, each form was usually built up individually in several layers, which is proven by the frequently observed alternation and overlapping of the paint layers. In some sections, the background covers flesh tints, while in others the flesh paint occupies the background.¹⁰¹ This confirms that Cranach did not fully finish one part of the painting after another but developed the painting as a whole, often switching from one detail to another. Leaving reserves for the foliage of a tree when applying paint for sky (fig. 175), he calculated the visual result but might well have also considered saving pigment and time.

X-radiographs show clearly that Cranach began his pictures with a light flesh paint, which was often applied beyond the contours fixed by the underdrawing (figs 14, 151, 167, 170) and followed by the base tone for hair, the underpainting of the drapery, the background and the accessories. Monochrome



174
Detail from **Fourteen Helpers
in Need**, c.1505/07 (fig. 34).

175 >
**Holy Family (Rest on the
Flight into Egypt)**, 1504
(fig. 176). X-radiograph.



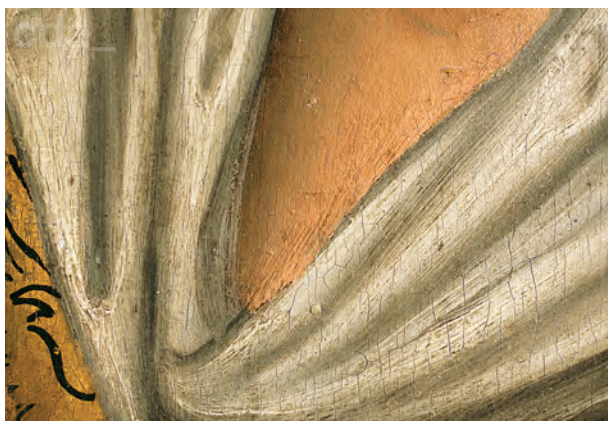
176 (page 209)
Lucas Cranach the Elder, **Holy
Family (Rest on the Flight
into Egypt)**, 1504. Panel,
70.8 × 52.9 cm. Staatliche
Museen zu Berlin, Preußischer
Kulturbesitz, Gemäldegalerie.

black, blue and green backgrounds frequently serve to model the contours of the flesh tints. It seems in most cases that the picture grew from the centre to the periphery, usually from light to dark. This method of proceeding can be explained on the basis of painting technique. It is easier to outline a light or undried colour with a darker one than the other way round. Given Cranach's rather impulsive method of painting, his working process starting from the blocking in of the drapery or the background would have to allow for drying time before the flesh paint was applied.



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Detail from **Fourteen Helpers
in Need**, c.1505/07 (fig. 34).



As far as can be discerned, and also depending on the size of the painting, the design was laid out in colour over the whole of the surface in one operation, perhaps within one day, and completed as far as possible. Individual areas of the picture, mainly white or grey, were sometimes finished wet in wet. A sufficient drying time followed the 'working up' of the painting, probably in several phases, until its completion with final glazes and details. The sequence of operations was developed according to artistic intent and because of practical reasons such as differences in drying time of particular paint formulations. As already pointed out, the first layer of the flesh was carried out in a very early stage; but the final graduation of tonal values was one of the last measures in the entire painting process (fig. 174).¹⁰² To illustrate this point, the panel with the *Fourteen Helpers in Need* (c.1505/07) has pink-coloured highlights that have been applied on previously painted drapery in the areas of the necks of St Cyprian and St Giles (fig. 177), while flesh tints on St Giles at the end have again been trimmed by the borderline of the paint modelling the black robe. Another example is given on the *Altarpiece with the Martyrdom of St Catherine* (1506), where the last flesh modelling even overlaps her bib, including some threads of the gold brocade.

Another distinguishing feature is the degree of variation used for representing the brocade fabric patterns; to achieve these, Cranach used a very fine brush to apply the paint onto a dry underlayer. On the *Altarpiece with the Martyrdom of St Catherine* (1506), the *Altarpiece of the Holy Kinship* (1509, fig. 99), the *Virgin and Child with Saints* (1516) as well as on many other works, the so-called pomegranate pattern has been drawn first, followed by yellow lines to enhance the effect of interwoven metal threads. On the *Holy Kinship* (c.1509/10), the *Virgin and Child and Two Saints* (c.1512/14) and the *Altarpiece*

of the *Virgin* (c.1520), amongst others, the sequence is the other way round and on the *Martyrdom of St Barbara* (c.1511/12, FR 21) and the *Holy Trinity* (c.1515) we come across both techniques combined in one picture.

It is not possible to identify to what extent Cranach's working sequence differed from that of his German contemporaries because very few comparative observations have been recorded and published to date. It is obvious, however, that Dürer as well as Leonardo and Michelangelo developed some of their unfinished paintings differently. Dürer's *Salvator Mundi* (c.1504/05)¹⁰³ is recorded as incomplete in an inventory as early as 1573. As can be seen from its present state, the draperies were almost completed while the preliminary drawing of head and hands was hardly covered with paint. Leonardo began the painting process with a pronounced monochrome undermodelling of dilute washes of dark paint and only a few lights as it is preserved with his unfinished *Adoration of the Kings* (c.1481).¹⁰⁴ Michelangelo again worked differently: while parts of his *Manchester Madonna* (c.1497), including some faces, have been brought to near completion, others have progressed no further than the preliminary underdrawing or the green underpainting.¹⁰⁵ About one hundred years later, Rembrandt painted in yet another sequence. Proven by van de Wetering, Rembrandt basically worked in planes from the rear to the front, starting with the sky in outdoor scenes or the rear wall in interiors and finishing with the foreground figures.¹⁰⁶

The question as to whether Cranach's working sequence reflects his reputation for being a fast painter cannot as yet be answered definitively, but technical arguments seem to allow support for this assumption. There is no doubt that he reduced waiting time by exploiting the drying time required for each passage in order to proceed with other passages or even other paintings. This working method presupposed that all colours were continuously available. Under the presumption that different painters in the Cranach workshop specialised in painting of particular parts of paintings, like landscapes and figures, then they frequently had to take turns (see p. 291). The method of working up the picture gradually was not only Cranach's practice for many decades but seemingly also that of his apprentices and collaborators. Even in the 1540s with the *grisaille* underpainting, this pattern was not abandoned. The whole of the composition was initially developed in grey tones before being modelled in colour in the next stage. In this sense, *grisaille* underpainting is a perfectly consistent refinement of the working process described. At the underpainting stage the painter did not have to continually change colour especially in scenes with many figures; he concentrated rather on the tonal gradation.

cda_



178 (page 212)

Lucas Cranach the Elder and workshop, **Adam and Eve**, 1526. Panel, 117.4 × 80.5 cm. London, The Courtauld Institute Galleries.

Changes in composition

The borderline between a creative painting process and changes of plan is not very obvious. The frequently used term *pentimento* (subsequent amendment) is variously defined. Wolters distinguishes between different types of such amendments: ‘The external ones to improve individual elements, ought to be described as “rectifications”, those which intrude on the structure of the picture, recasting it from inside, ought to be called “alterations”.’¹⁰⁷ According to van de Wetering, the term *pentimento* should be kept for changes made to a painting that has already been partly or fully worked up.¹⁰⁸ The London *Adam and Eve* (1526, fig. 178) shows how difficult the use of this term in Cranach’s work can become: here most of the animals have been painted on a white ground and laid out before the green meadow was painted. Only the stork, the horse and a grey heron have been painted upon the green ground, presumably to fill up empty space.¹⁰⁹ Was this the ‘normal’ working process, a subsequent amendment (*pentimento*), or possibly a correction? To avoid clashes with existing definitions in what follows, the terms ‘changes in composition’ or ‘corrections’ shall be used.

Some changes in composition in the underdrawing stage and between the outlining and the first application of paint have already been dealt with in chapter II *Practices of underdrawing*.¹¹⁰ The following survey will focus on changes within the painting process, which involve a subsequent modification of forms and/or colour already laid in and examine these in more detail as they may help to elucidate the working process.

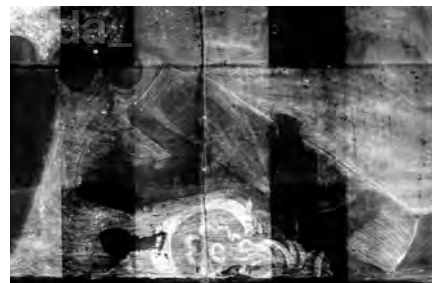
The earliest changes in composition can be recognised on the *Portrait of a Viennese Scholar* (fig. 181) and the *Crucifixion* (fig. 27, 182) from 1503. The X-radiograph of the scholar reveals the fully painted pomegranate pattern of his coat under the tabletop (figs 179, 180); it can therefore be deduced that the book was originally to rest on his thighs. The tabletop was painted only after the extensive work on the painting was completed, perhaps following the

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Detail from **Portrait of a Viennese Scholar**, 1503 (fig. 181).

180 >

Portrait of a Viennese Scholar, 1503 (fig. 179). Detail of X-radiograph.





181
 Lucas Cranach the Elder,
**Portrait of a Viennese
 Scholar**, 1503. Panel, 54 × 39
 cm. Nuremberg, Germanisches
 Nationalmuseum.

wish of the commissioner. The choice of a red marble heightens the impact of the picture. Humanist writings on art do compare this stone with porphyry, a well-known stone in works from ancient times.¹¹¹ Artistic features related to quality, such as the competition between antiquity and the present, richness of invention, and liveliness in depiction are associated with this material. Several corrections can be ascertained on the *Crucifixion* (1503): in the underdrawing, with the first application of paint and in the subsequent painting process. Execution of the figure of St John was already well advanced when it was changed. The X-radiograph reveals the head as first leaning slightly

further forward and showing more profile (fig. 182). Perhaps Cranach might have considered that Jesus' favourite disciple could not look into the face of the Virgin Mary from this angle.¹¹² Schawe discusses the relevance in terms of content: Cranach is extending the scene with a figure for the viewer to identify with. St John is demonstrating how the Virgin Mary is to be regarded as an example to the faithful in contemplation of the Passion.¹¹³

On the verso of the panel with the *Fourteen Helpers in Need* (c.1505/07) depicting *Christ as the Man of Sorrows*, the second wing of the angel on the left has not had its position changed; it has instead been eradicated with black paint (fig. 187). Clarification of the composition and greater concentration on the centre part, the figure of Christ, might be the reason for this measure.

The most serious changes took place on the *Altarpiece with the Martyrdom of St Catherine* (1506) with the first application of paint, particularly in the direction of the line of vision of the saints.¹¹⁴ Hairstyles and colour were varied during the painting process. On the right-hand shutter, St Margaret is wearing her plaited hair pinned up significantly higher than is discernible on the surface and the head of St Barbara was at first adorned with a large headdress. On the central panel, the yellow-striped robe of the stumbling figure results from change in composition. In the first version, this man was wearing a robe of red and green, almost finished with coloured glazes before it was overpainted altogether (fig. 76). It is likely that this happened when the central panel and the painted wings were joined – it then might have appeared that this robe's green clashed with the green of the dress worn by St Barbara and thus caused an imbalance in colour (see p. 89). This illustrates the dangers of an additive procedure in the production of the altarpiece as a whole: only when the retable was reviewed as a complete unit, that is, only when the individual parts painted as separate entities were brought together, could errors be detected and the final corrections be made.

Another change occurred in the colour attribution of the *Altarpiece of the Holy Kinship* (1509, fig. 115). The bright red cap of the man behind the balustrade was changed to a black one, and the green robe of the figure next to him, which had been finished with glazes, was repainted in a deep purple colour.¹¹⁵ Possible reasons for this may have to do with the need to depict the person possibly representing the Emperor Maximilian I with a more appropriate purple robe. From an aesthetic point of view, Cranach may have started with a more colourful palette influenced by his experience in the Netherlands and then decided to change to a more sombre colour tone. It may also be possible that the multitude of bright colours in the background figures competed compositionally with the figures in the foreground.

183

Detail from **Martyrdom of St Catherine**, c.1508 (fig. 40).

184 >

Martyrdom of St Catherine, c.1508 (fig. 183). Detail of X-radiograph.

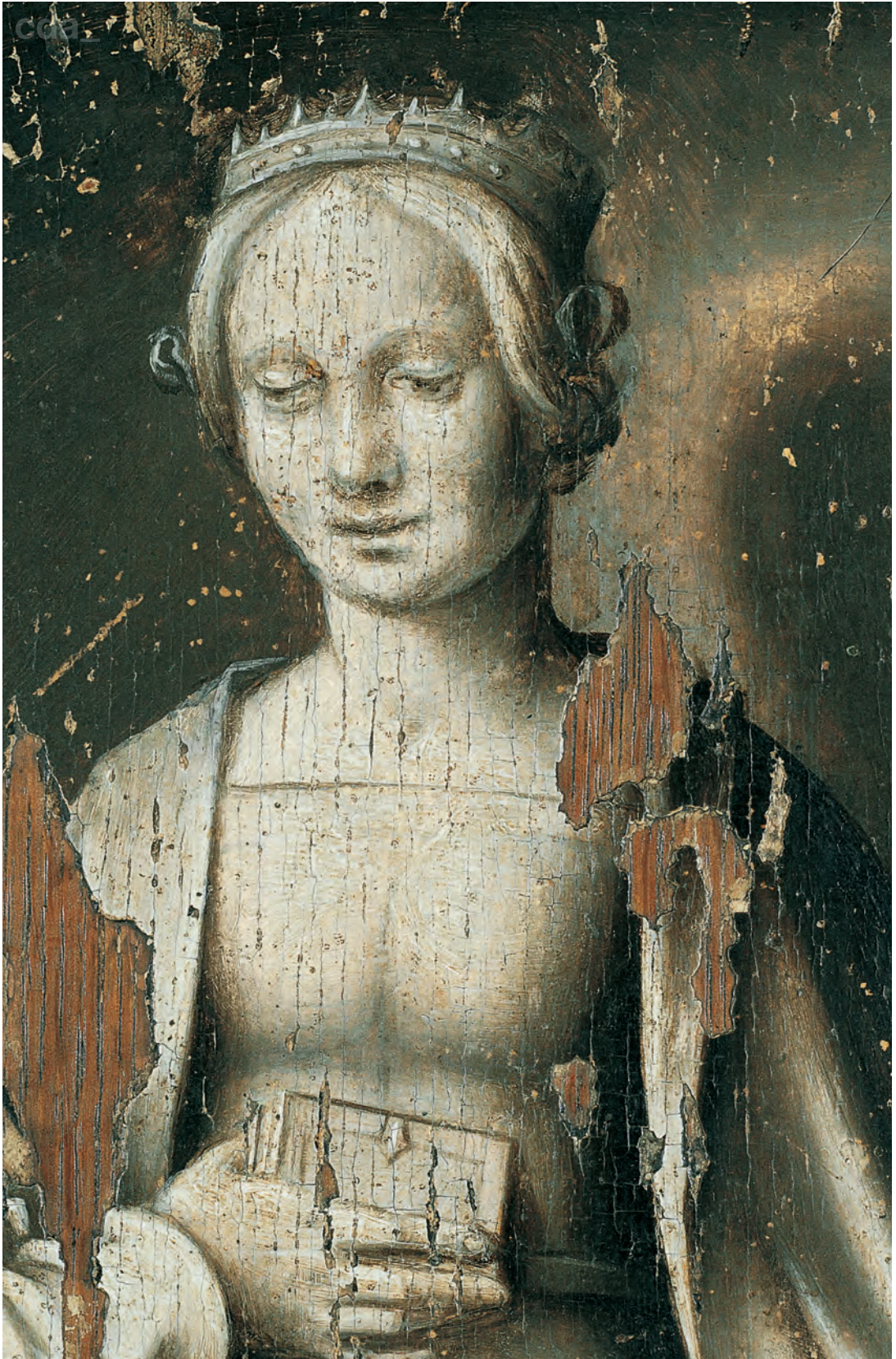


Friedländer suspected that the panels *St Elizabeth with Donor* and *St Anne with Donor* (c.1514) were executed in two phases, the donors being painted on the finished wing panels about ten years later.¹¹⁶ This assumption is not confirmed by technical investigation. As Lübbecke noted, without the donors, the depiction of the saints would be incomplete in the lower part of each painting.¹¹⁷ X-radiographs and microscopic examination provide evidence that the work was executed in a single operation, as the donors have not been painted on top of the saints.

In X-radiographs of the Budapest *Martyrdom of St Catherine* (c.1508), changes in the choice of material, for example, gold leaf instead of a robe painted yellow, are revealed. The brocade robe of the falling prince, including the drawing of the pattern, was completed first with paint before being covered with gold leaf and a new pattern (figs 183, 184). To what an extent this alteration is a result of the artist reviewing the work from an aesthetic point of view or the commissioner expressing certain wishes cannot as yet be ascertained. However, the correction being made to the *Electeur Johann the Steadfast* (1526, FR 311B) seems to relate to the use of a bare-headed portrait study, which was also used for another portrait of the elector (c.1526, FR 311A).¹¹⁸ While forehead and hairline were initially modelled according to the study, they were only in a later stage covered with the beret.¹¹⁹ The question as to whether

the early overpainting of the greatly protruding hat on the *Portrait of a Young Woman* (1525) goes back to a wish expressed by the commissioner or a correction undertaken by the artist himself must again remain unanswered.¹²⁰

In comparison with Dürer, whose working process appears to have progressed precisely, from the first to the last brushstroke, Cranach repeatedly corrected forms and colour in his early works. Dürer's conception of the painting appears final once the painting process began, while Cranach further developed his during painting. His alterations reflect his lively working method and may indicate his quest for artistic perfection. In addition, commissioners were able to have continuing influence because of the painter's close connection with the court and correction could well have resulted. The additive painting method and the artist's close proximity to his work during the painting process are also factors to bear in mind. Confined to an easel, painters were unable to take in the total effect of large-sized panels while painting. Discrepancies would only have become apparent when they stepped back and viewed the panel or retable as a whole. The changes described above indicate that the painting process was accompanied by reflection on the effect of the finished picture on the viewer. As workshop production increased, fewer and fewer changes or corrections were discerned in Cranach's paintings. The reasons for this will be examined in chapter V *Artistic co-operation and exchange in panel painting*.



Painting the reverse side, presentation and transport

185

Portrait of a Woman, c.1508

(fig. 24). Detail of reverse.

Decoration and information

The reverse decoration of panel paintings depended on commission and function. In the tradition of late-medieval altar settings, the Cranach workshop produced a substantial number of retables with folding wings. Depending on the concept there were one or two movable pairs of shutters, often supplemented by a pair of fixed wings (fig. p. 2, fig. 215).¹ The variable imagery of these composites, in accordance with the changing requirements of the Church calendar, increased the scope for their appreciation. There would of necessity have been some painting on the outside of the folding wings. Occasionally we come across a somewhat more cursory painting method on these exterior pieces. Stylistic differences at times appear to be based on a division of labour (see p. 290). From the technical point of view, the sides of panels with figurative depictions for everyday use differ little from other paintings. In both cases the wood was carefully smoothed. Applications of canvas are only found on the outsides of the shutters of the *Neustadt Altarpiece* (1511-13); similarly, the fragments of a retable (FR 64B) completed in about 1515 reveal that tow was glued only on the outer faces of the wings. These forms of join stabilisation are used on panels painted on one side only, usually on that with the picture. Other shutters reveal strips of tow glued to both sides and differences in the technical execution of the ground can only rarely be detected.² Cranach did not follow a uniform principle in the choice of painting materials either. He used gold leaf on the outsides of the shutters of the *Altarpiece with the Martyrdom of St Catherine* (1506) and yet on the inner surfaces, which were on display during feast days, gold leaf was not applied. On other retables he used metal leaf in the traditional manner, that is, the other way round (see pp. 120-122). The reverse sides of the shutters of the *Altarpiece of the Holy Kinship* (1509) and the *Portraits of a Woman and a Man with a Rosary*, originally probably the wings of a small devotional triptych (c.1508, FR 27, 56) have been painted in *grisaille*, imitating the appearance of statues in an architectural setting as was very popular on contemporary Netherlandish retables (fig. 185).³ There are also smaller retables, distinguished by more decorative work on the versos of the shutters and by simpler execution in technical terms. For example, heraldic themes on black ground adorn the outer faces of the shutters with the *Holy Family* and the *Education of the Virgin* (1512/15) as well as the *Resurrection* (c.1509, fig. 186).

The decoration on the reverse of the central panel, fixed wings and predella depended in formal, stylistic and technical terms on the designated location. The depiction of *Christ as the Man of Sorrows* (fig. 187) on the reverse of the



186

Resurrection, c.1509.
Kassel, Staatliche Museen,
Gemäldegalerie Alte Meister.
Detail of reverse.



187 >

Lucas Cranach the Elder and
workshop, **Christ as the Man
of Sorrows**, c.1505/07 (recto:
Fourteen Helpers in Need).
Panel, 84.3 × 117.8 cm. Torgau,
Marienkirche.

predella panel with the *Fourteen Helpers in Need* (1505/07, fig. 34) presupposed some room behind the altar. The retable presumably stood directly in front of the chancel of the Marienkirche in Torgau.⁴ The technique of the painting on the reverse does not differ significantly from that on the front of the panel. Precious gold leaf was used on both sides.

The area behind the *Neustadt Altarpiece* (1511-13, fig. 215) was also accessible but extremely restricted. Here the fixed wings, shrine and rear wall of the predella box have only a thin ground. An image of Christ on the sudarium of St Veronica and vegetal ornamentation were presumably painted in a water-based technique and by less-well-qualified assistants (fig. 188). Similar branch and foliage patterns were widespread in the late Gothic period.⁵ Floral motifs were merged with hosts of angels on the reverse side of a retable figuring in Cranach's woodcut *The Death of John the Apostle* (c.1512).⁶

The reverse of *Christ as the Man of Sorrows, Seated in a Sarcophagus between the Virgin and St John* (1524, FR 156) was also visible. The panel presumably originates from the *Engel-Altar* to the left in front of the choir screen of the Stiftskirche in Halle/Saale.⁷ Its verso is marbled and bears the coat of arms of the donor, Cardinal Albrecht of Brandenburg. Marbling, which was a particularly popular form of decoration in fifteenth- and sixteenth-century Netherlandish painting,⁸ was also found on the Prague *Altarpiece of the Virgin Glorified*

188

Neustadt Altarpiece, 1511-13
(fig. 215). Detail of reverse of the
predella.



189 >

Johannes Cuspinian, 1502/03
(fig. 19). Reverse of the panel.



(c. 1520).⁹ The retable of the *Kaland-Bruderschaft* of Zwickau, which is dated at 1518,¹⁰ was certainly not visible from the rear at its original location; in that case the wood has only been roughly planed and is not painted.

Accordingly, the reverse of individual panels have also been finished differently. Whereas the *Crucifixion* (c. 1500) and other early works have been coloured black on the verso, numerous panels painted in the same format such as the *Crucifixion* in Mahlis at a later date have been left with bare wood visible.¹¹ Often in such examples the wood has only been roughly planed. Apparently the form of finish or decoration depended on if the work was to be freely exhibited in the space, if it was to have a permanent place on a wall (figs 190, 191) or if it was for temporary use.

Double portraits joined by hinges could be closed like a book.¹² In the early years, Cranach frequently decorated one of the two outside panels with a heraldic theme on a black background (fig. 189), while the other one was black all over (fig. 25). Unlike the shutters examined, the coat of arms denoting the marriage alliance, preserved in fragments on the verso of *Johannes Cuspinian* (1502/03), was painted on a very thin layer of ground and a roughly planed support (fig. 189). The reverses of the diptych depicting Johann the Steadfast and his son, Johann Friedrich (1509), were smoothed more care-

fully, but did not have a ground. The portrait of the boy, which obviously took the place of that of his deceased mother, Sophie of Mecklenburg, bears the coats of arms of the dukedoms of Saxony and Mecklenburg, belonging to his parents.

Occasionally, coats of arms have been painted on parchment and glued to the reverse of portrait panels (see p. 259). The versos of a series of portraits of the electors were also adorned with coloured woodcuts of coats of arms¹³ or panegyrics printed on paper (see p. 126).¹⁴ However, on numerous portraits, the reverse has simply been painted black (fig. 39). In doing this, Cranach was reverting to the usual form in the fifteenth and sixteenth centuries in Germany and the Netherlands. An exception is the *Portrait of a Bearded Man* (1534, FR 342), attributed to Hans Cranach. It reveals a yellow-green mottling, presumably intended to imitate stone.¹⁵

In later decades, even the simple black coat of paint was also occasionally dispensed with. The reverse became less important and, like work with other subject matters, was often finished very roughly. This indicates that the portrait had found a permanent place on the wall. The *Portraits of a Couple von Schleinitz?* (1526) are striking; they are joined by hinges and have also been left with bare wood visible on the reverse.¹⁶ Was this diptych destined for a wall, or did the lack of decoration on the reverse sides go hand in hand with serial production? This question remains as yet unanswered. However, it seems clear that a black coating of paint was more in line with aesthetic requirements than the aim of protecting the wood from environmental damage or pests.

Today the reverse side decorations of many paintings have been damaged or destroyed (cf. figs 185-189). The notion of respecting the verso as an integral component of the painting worth preserving is still quite new. Dülberg points out that such ignorance and destruction began as early as the sixteenth century with the change in function of the private portrait from being a personal 'document' to a 'work of art'.¹⁷ The object of a 'collection' was then almost exclusively displayed on the wall and the painting of the reverse declined in importance. Because of the damage from damp and cold walls, a good many decorations have disappeared forever. The reverse sides were also victims of early vandalism. The first of such graffiti, monograms and dates incised on the back of altarpieces dates from as early as the sixteenth century. Amongst others, the dates '1552' and '1582' are carved on the reverse of the *Fourteen Helpers in Need* (c.1505/07). In the eighteenth century, panels painted on both sides often led to the temptation to separate them in order to sell the pictures independently of each other.¹⁸ In the case of thin panels, this practice was

associated with losses of paint.¹⁹ Since the nineteenth century, many panels have been transferred to canvas or new wooden supports (see p. 232). No less damaging was the effect of the fashion of protecting panels from warping with so-called cradles. Even the fact that a panel such as the *Fourteen Helpers in Need* (c.1505/07) was painted equally on both sides did not stop someone planing down three broad strips of the painting on the reverse with *Christ as the Man of Sorrows* in order to glue cross-battens to them (fig. 187).²⁰ As a result, numerous reverse side decorations and paintings, which might supply information about the subject matter, the function and its original location, have been lost.

Mobile and immobile panel paintings

One of Lucas Cranach the Elder's largest altarpieces is still in its original location in the St. Johanniskirche in Neustadt/Orla (fig. p. 2). The destination of other retables is known. Analysis of invoices, inventories and technical features similarly provides firmer evidence to support considerations as to the storage and display of individual panels. Invoices, payment orders and inventories from 1548, 1563, 1601 and 1610 survive from the extension of Schloss Hartenfels in Torgau.²¹ The first list of furnishings was drawn up when the castle was taken over by Duke Moritz, about three years after the extensive building work came to an end. Several valuable pieces must have gone missing as early as this, or may have been transferred to Weimar,²² however, the lists give an impressive picture of the rich range of furnishing, with canvas and panel paintings supplied by the court painter's workshop.²³ These easel paintings were a component of the overall embellishment of rooms, the entire scheme designed by Cranach, with painted canvas ceilings, wall decorations, painted doors, and glass windows. On the side facing the Elbe, the ceiling of the Oriel Chamber (*erkergemach*) on the second floor was covered with painted canvas and gilded roses. Veneered grained panelling (*forniertes flasern tafelwerk*) covered the walls of the chamber.²⁴ Among the six small and large panel paintings that were produced by Cranach according to the inventories, were *David and Bathseba*, *The Beheading of John the Baptist*, *Christ Blessing the Children* and *St John the Baptist Preaching*. The *Last Judgement* over the door leading to the church, and both depictions of tournaments over the entrance were canvas paintings, described as executed in water-based technique.²⁵ In the Ladies' Chamber (*frauenzimmergemach*), which contained a canvas ceiling with clouds and angels, there were eight oil paintings in 1610: two 'von der liebe' (*Ill-matched Lovers?*) and six portraits of princes; additionally, there was a life-sized portrait of Duke Heinrich the Devout of Saxony painted in an aqueous medium on canvas and a half-length portrait of a

prince. In the adjoining Young Gentlemen's Chamber (*gemach der jungen herren*) in 1563, there were eleven painted panels and four cloths.²⁶ An estimate for the renovation of the decoration in 1599 describes the Ancestral Chamber (*stammstube*) '...as it was decorated before: around the top of the room Saxon ancestral portraits, painted on canvas, each one of them measuring three *ellen* in length. Underneath a wainscoting showing princes of Saxony together with numerous young ladies painted in oil. The ceiling divided up into squares with foliage and Saxon coats of arms, the beams adorned with gilded roses. Everywhere, above the wainscoting and in the windows, everything painted, the background blue.'²⁷

Canvas paintings and panels hung next to each other as well as on top of each other (see p. 253). According to the descriptions, the latter could be viewed both above the wainscoting and at eye level, and were therefore mounted on the panelling or set into it. In 1540, Cranach received payment for two *Ill-matched Lovers*, which were intended for the Chamber of Mirrors (*spiegelstube*). In 1548, the inventory referred to '12 small painted panels' (*12 kleyne gemalte taffeln*) and six large mirrors.²⁸ In this room with a total area of some 30 square metres, there were also seven windows, a door and a tiled stove, which reduced the surface area of the walls (fig. 204).²⁹ The areas above the windows, as well as those above the mirrors, which were presumably hung between them (fig. 211), and the top of the side wall of the castle were all possible locations for the paintings. If the hanging position of the pictures – and thus their distance from the viewer – was known at the time when the paintings were designed, the choice of different supports and the differences in the care taken to execute the pictures should not come as a surprise today.³⁰

Noll-Minor recorded a substantial number of dowel holes in the walls, each about two by two centimetres in size, which were used to fix textile decoration, mirrors and panels. Referring to the inventory of 1601, which reports that 'two paintings had broken away and been found in the attic' (*2 gemelde abgebrochen und oben unter dem dach gefunden*), she suspects that the panels were fastened directly to the wall with wooden dowels.³¹ As nails were also found in those dowels still remaining, it also seems possible that, as with the securing of hinges on shutters and folding portraits, the panels were attached with iron pins. The *Ten Commandments* (1516, fig. 64) painted for the Wittenberg council chamber could be evidence of this method. The reverse side of the original frame does not give any indication as to the original way it was hung.³² As a result it must be assumed that the panel stood on a pedestal-like base. The securing of this painting to the wall was very likely done with nails that are still partly preserved in the top moulding. They were hammered in at an angle

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Lucas Cranach the Elder and workshop, detail from **Cardinal Albrecht of Brandenburg as St Jerome**, 1525. Darmstadt, Hessisches Landesmuseum.



from the upper side of frame to the back and presumably they found a hold in wooden dowels or the elements used in the construction of wainscoting. The practice of working with the frames as a component of the wainscoting or hammering nails into them could be one of the reasons why today only a few original settings survive.

Other methods of hanging the paintings can be discerned: an early document alludes to ‘an iron dowel with which to fix a panel in my gracious Lord Hansen’s [Johann the Steadfast] chamber’.³³ An illustration in the Spalatin Chronicle (c.1530) shows a painting, *Christ and the Woman Caught in Adultery* hanging in a gilded frame above a tall arched door on two visible metal hooks and eyes,³⁴ and *Cardinal Albrecht of Brandenburg as St Jerome* (1525) provides proof of a picture being fixed to the wall by means of a large wooden eye and a nail (fig. 190).³⁵

The castle inventories confirm that portrait paintings that had a representative function to fulfil were hung on the wall. Ancestral galleries were naturally



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Lucas Cranach the Elder and workshop, **Cardinal Albrecht of Brandenburg as Saint Jerome**, 1520s. Panel, 114.9 × 89.1 cm. Sarasota, The John and Mable Ringling Museum of Art, the State Art Museum of Florida.

permanently on show and it would not have been any different in the case of the full-length and life-sized portraits of Duke Heinrich the Devout and the Duchess Katharina of Mecklenburg (1514, fig. 68).³⁶ The *Triptych of the Three Electors of Saxony* (c.1535, FR 338A) could have been designated for hanging since the reverses of the wings have been adorned with panegyrics, while the verso of the central panel has only been roughly finished. An anecdote recorded in 1537 describes a portrait of Katharina von Bora on the wall.³⁷

Nevertheless, not all the portraits hung on walls. If the small capsule portraits (figs 58, 59) were opened, they were held in the hand or laid on a table. According to Löcher³⁸ and Dülberg,³⁹ the fact that pairs of portraits framed as a diptych could be closed and that individual pictures were provided with sliding lids also indicated that they were not on permanent display in the living quarters but were kept in cupboards and chests. The decoration on the reverse of several double portraits by Lucas Cranach supports the suggestion that they were transported and stored closed. The painter, however, reckoned with the fact that these diptychs would not only be opened temporarily like a book, but would be set up at an angle of slightly more than 90 degrees, for example on a piece of furniture. Research has so far overlooked the fact that Cranach took the angled position and the resultant change in viewpoint into account when composing the picture, thus heightening the spatial effect of depth. When the earliest known pair of portraits is set up at an obtuse angle, Johannes Cuspinian appears to direct his gaze towards not only the sky, but also at falcons and herons that are components of the iconography with which he is familiar (cf. figs 19, 70).⁴⁰ Anna's gaze is also no longer directed into the void, but rather comes to rest on the head of her husband, who is sitting slightly in front of her. Moreover, the change in position heightens the perspective in the landscape between them. Cranach refined this effect in the *Portraits of a Viennese Scholar and His Wife* (1503). If the panels are set up at a certain angle, the scholar's gaze falls on his wife and does not glide 'past the viewer into the distance' (cf. figs 26, 181).⁴¹ In the double portrait with his father, the young Johann Friedrich takes the place of his late mother. When viewed straight on, his eyes are directed strangely towards a point adjacent to the viewer (fig. 164). If the painting is set up at an angle, however, the boy instead seems to make contact with the viewer, whereas his father appears far more turned in on himself.⁴²

The fact that the position of the viewer was defined in the course of composing a picture is no novelty in sixteenth-century portrait painting. Diptychs by Memling⁴³ and Dürer⁴⁴ preceded Cranach's compositions and interest in this phenomenon reached its climax in the distorted optical images, so-called

portrait-anamorphoses.⁴⁵ If these double portraits are put on a table like an open book or if they are leant against a wall as presumed before, the viewer is unable to perceive the effect intended. That is to say that, although these diptychs could be carried and stored closed, there is no doubt that they were conceived for being set up at an angle of more than 90 degrees. If museums today display these panels adjacent to one another at an angle of 180 degrees, they prevent viewing as conceived by Cranach.

‘...futer, dar in sie vor wart sein’

To transport or temporarily store an individual panel in a cupboard or chest, a protective lid or cover was more or less obligatory. In the sixteenth century, smaller panels could occasionally be closed with a sliding lid. These were thin panels, which could be inserted in a picture frame with slots in it. The sliding lids for Strigel’s portrait of Hieronymus Haller and Dürer’s portrait of Hieronymus Holzschuher have been preserved.⁴⁶ Glück considers it probable that, because of the subject and composition, Cranach’s small painting *Allegory of Virtue* (1548) was originally a lid for a portrait.⁴⁷ Technical examination of this work has yet to be undertaken. However, the results of closer inspection of the *St Jerome* (1502, fig. 81) do not support Dülberg’s suggestion that this panel was intended as a sliding lid for a portrait that has not survived.⁴⁸ Moreover, no clues as to the existence of a lid to close them have been found on either the portrait of Christoph Scheurl or other authentic frames that have been examined.

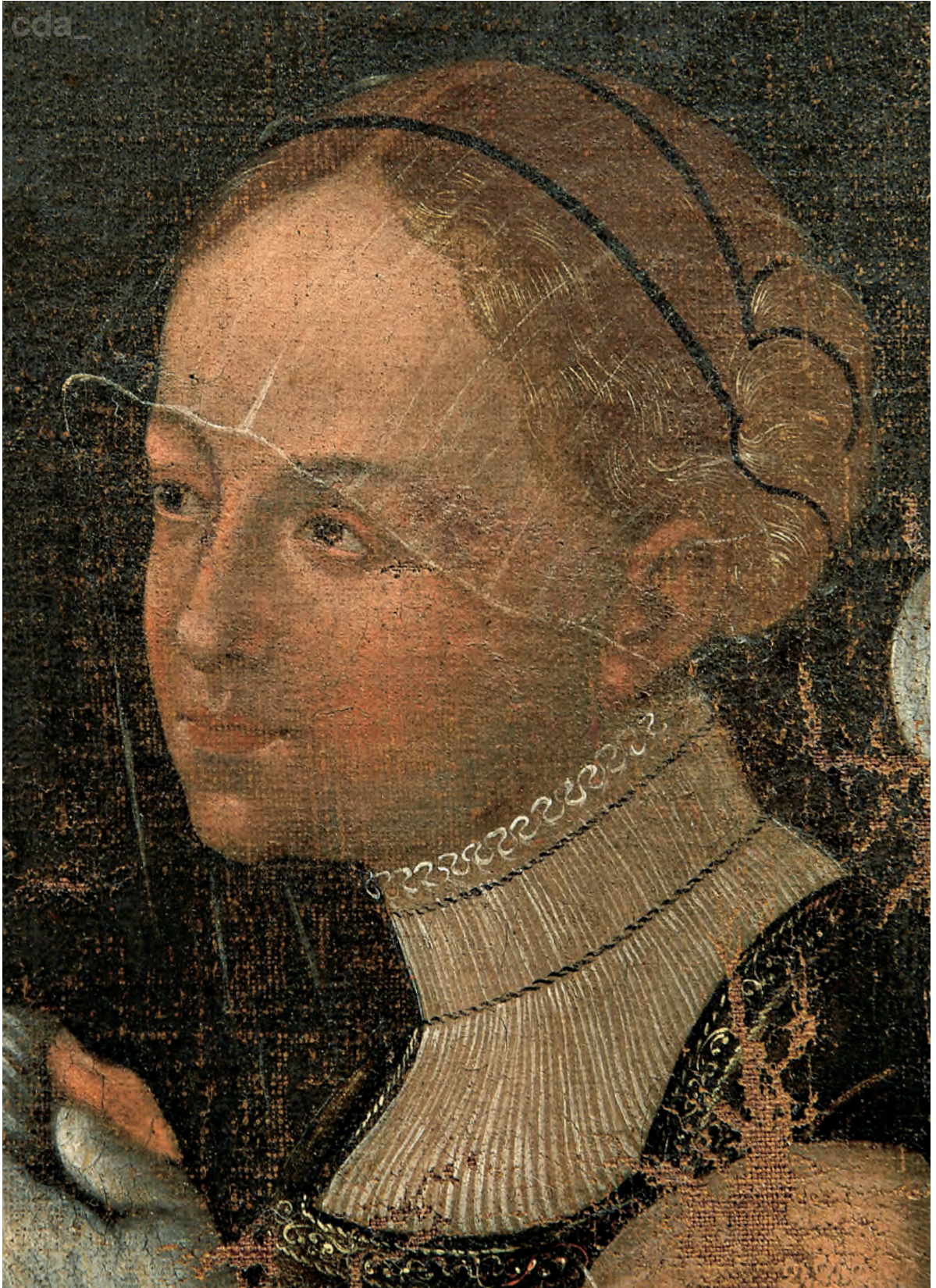
It can, however, be proved that several wooden panels left the Wittenberg workshops in cases. In 1526, Cranach charged ‘6 *groschen* for leather to cover this panel’ (app. II, 137) and carpenters often made protective ‘cases’ (*futter*) from wood. These were occasionally covered with leather.⁴⁹ There is evidence of protective cases being made for several *Lucretias*, a *Judgement of Paris*, a *Raising of Lazarus* and a large *Virgin*. According to the size of the picture, these cases cost between two and ten *groschen*. As specified in more detail in 1522, this was between one-sixth and one-tenth of the price for a painting (app. II, 102, 103). Cranach’s invoice of 1518 reveals that these cases (*futter*) could be used to store paintings: ‘...10 *groschen* for the *futter* in which they [two *Lucretias*] are to be kept’ (app. II, 77). As far as the large *Virgin* was concerned, the case was more than likely for transport purposes: ‘7 *fl* 19 *gr* 6 *d* to Lucas the painter [Cranach], in particular 5 *fl* for the *Virgin* on the large sheet, 10 *gr* for the case’ (app. II, 103). The following invoice is also understood to refer to packaging for transport purposes: ‘5 *gr* to Antonio the carpenter, in particular 3 *gr* for 1 *lb* of glue, used by Schlett the painter for two cases and 2 *gr* for one case to go over the two other cases’ (app. II, 87). Lastly, the invoice of 1552

provides confirmation of the assumption that the term *futter* referred also to crates, which were solely used for transport purposes: ‘7 *gr* for the large case in which the canvases were transported’ (app. II, 316).

When transporting works of art it was the artist who often had to bear ‘the risk of something breaking’ (*wagnis... ob etwas präche*).⁵⁰ According to contract, he was required ‘to repair the damage at his own expense’ (*auf seine Kostung pessern und mache*). As a result, the packaging took on a particular significance when a painting was dispatched. When Elector Friedrich III the Wise ordered a panel from Nuremberg in 1488, he paid six *groschen* to have a barrel made in which to pack it.⁵¹ The wooden cases described as *futter* protected delicate layers of oil paint from environmentally or mechanically induced damage during transit from the Wittenberg workshop to the commissioner or when later transported on journeys. For this reason, the fact that a case was made does not necessarily mean that a painting was stored closed, over a long period of time in a cupboard or chest.

Haulage charges were added to the costs of the case. In 1536, transport by horse and cart between Torgau and Wittenberg (approximately 50 kilometres) cost the electoral court between 12 and 18 *groschen* (app. II, 205, 222-224); a courier received five *groschen* for covering the same distance (app. II, 208).⁵² The cost of transporting a panel from Wittenberg to Weimar (approximately 200 kilometres) was two *gulden* and 15 *groschen* (app. II, 181), a considerable sum by comparison with the prices of the paintings. Thus, as early as in the sixteenth century, the transportation of paintings had become a well thought-out – and relatively expensive – operation.

It can be seen that Cranach considered a painting’s designated location and form of display when designing the painting as well as when deciding to decorate the reverse side. In several of his early pairs of portraits, he realised that these would be viewed at a certain angle. By determining the position of the viewer, he heightened the effect of the picture. In the castle buildings, the paintings became an essential component of the interior decoration, which he devised and executed in its entirety. Even in his choice of support and painting technique he was reflecting where and at what distance the viewer would be standing. Matt painting on canvas made it possible to look at a picture from different positions undisturbed by reflections of lights. The functions and types of display of canvas paintings are one of the subjects of an in-depth study in the following chapter.



III

Canvas painting

Documentary evidence and surviving canvases

'... and for thy walls, a pretty slight drollery, or the story of the Prodigal, or the German hunting in waterwork, is worth a thousand of these bed-hangings and these fly-bitten tapestries.'

William Shakespeare¹

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Copy after Lucas Cranach the Elder (?), detail from **Christ Blessing the Children**, after 1540/45. Private ownership.

Until recently, the canvas paintings of Lucas Cranach and his workshop have attracted little attention.² The reason is not that textile supports were seldom used, but that these works have been almost entirely lost.³ In addition, the prevailing view that all these works were essentially decorative paintings or ephemeral art has deterred scholars from further investigation.⁴ This chapter offers a re-evaluation of this group of works.

The ledgers, receipts and letters that remain suggest the importance of canvas painting in Cranach's work: between 1505 and 1553 more than 200 paintings were listed as being on textile supports and as many items again were created for temporary use (cf. app. II). In addition, during this period, the workshop used more than 1200 *ellen* (approximately 500 square metres) of linen as painting supports.⁵ The knowledge that the invoices are incomplete, as well as a comparison with earlier inventories, makes it clear that these figures represent only a fraction of the original number of works produced over the course of his career at the Wittenberg court.⁶ To illustrate this point: although more than 1000 wooden panels from the Cranach workshop are preserved, written sources from the period 1505-1553 mention scarcely 200 and, of these, very few can be linked to surviving paintings.⁷

Surprisingly, only two paintings on canvas from Cranach the Elder's workshop appear to have survived.⁸ These may be *The Cloth of the Gospel, Where the Children Are Carried to Christ* and *The Cloth of Christ Standing with the Woman at the Well*, referred to in invoices of 1543 and 1552, respectively (app. II, 256, 316), but due to the large number of pictures produced, they cannot be certainly identified with the surviving pictures *Christ Blessing the Children* (fig. 192)⁹ and *Christ and the Woman of Samaria* (fig. 193).

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Lucas Cranach the Elder and workshop, **Christ and the Woman of Samaria**, c.1552. Canvas, 88 × 171 cm. Kronach, Festung Rosenberg.



The other so-called ‘canvas paintings’ listed in Friedländer and Rosenberg’s catalogue *raisonné*¹⁰ were either painted on wood¹¹ or were subsequently transferred from wood to textiles.¹² They are among a large group of panel paintings that were reworked in this way during the nineteenth century.¹³ Similarly, in the case of the *Portrait of a Young Lady Holding a Bunch of Grapes* (1528, FR 297), described by Friedländer and Rosenberg as ‘canvas transferred to panel,’ an X-radiograph reveals that the original support was without doubt a wooden panel.¹⁴ Even if no unquestionably authentic work on canvas by Lucas Cranach the Elder remains, there are at least some paintings from his son and his workshop with which to offer a comparison. Among these are *Gregor Brück* (1557, fig. 194)¹⁵, *Joachim Ernst of Anhalt and His Wife Agnes of Anhalt* (1563),¹⁶ *Martin Luther and Philipp Melancthon* (1564),¹⁷ *Electeur August of Saxony and His Wife Anna of Saxony* (c.1570),¹⁸ a *Crucifixion* (1571),¹⁹ *Electeur Johann Friedrich I the Magnanimous and Duke Moritz in Everyday Attire* (1578, figs 195, 203)²⁰ and *Electeur Johann Friedrich I and Duke Moritz in Armour* (1578).²¹

The reasons for the large percentage of loss may lie with the function, the subject matter or with the painting technique and the vulnerability of the fabric to environmental changes and mechanical damage. The canvas of *Christ and the Woman of Samaria* has tears totalling approximately 170 centimetres in length as well as several inserted pieces. There is a similar degree of damage to the *Electeur Johann Friedrich I in Everyday Attire*. As early as 1545, Cranach himself had to take down and restore a damaged canvas painting in the castle at Lochau (app. II, 276). Paintings were particularly at risk when being transported. Several works were certainly lost when the court changed location.



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Lucas Cranach the Younger
 and workshop, **Gregor Brück**,
 1557. Canvas, 109 × 87.5 cm.
 Weimar, Kunstsammlungen.

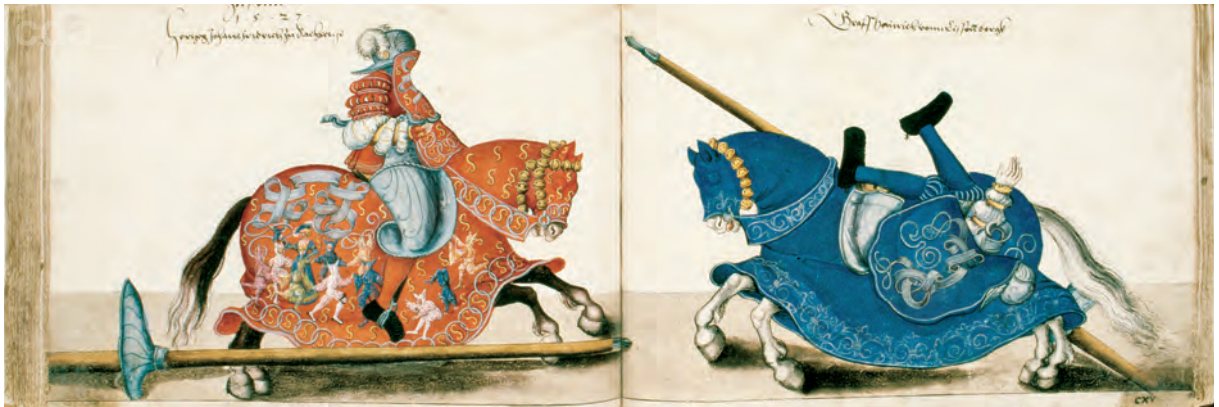
In addition, exposure of the paintings to humidity, micro-organisms as well as surface dirt inevitably led to their deterioration and loss. Still, the painting of Gregor Brück in Weimar shows that in suitable conditions canvas could be a very durable support, as it is in relatively good and stable condition and has not been lined to this day.

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Lucas Cranach the Younger and
 workshop, **Johann Friedrich I
 the Magnanimous**, 1578.
 Canvas, 118 × 98 cm. Weissen-
 fels, Castle.

At the beginning of the sixteenth century north and south of the Alps canvas was one of the traditional supports.²² The practice of painting on cloth was particularly widespread in the Netherlands. The guild registers of Bruges reveal that almost half of all painters in the fifteenth and early sixteenth century worked on textile supports.²³ We also know of the esteem for these paintings at the court in Wittenberg. A Netherlandish artist called Johan painted a number of canvases, both religious and genre subjects, over the years 1493-94 while serving as court painter to Friedrich III the Wise.²⁴ It is likely that the elector commissioned Dürer to paint the *Altarpiece of the Virgin* executed as a so-called *tüchlein* around 1496²⁵ and in 1505, Friedrich arranged for what he called 'cloths painted in the Netherlandish style' (*niederländisch gemalte tücher*) to be bought on his behalf at the Leipzig Fair (app. II, 1). Consequently

Cranach would have been familiar with the widespread technique of canvas painting early on in his career. There is archival evidence that in 1513 he produced items for tournament and wedding decorations (app. II, 52) and in 1524 a portrait of the elector, a *Judgement of Paris* and a depiction of Aristotle and Phyllis (app. II, 121, 122). It is conceivable that during his early years in the service of the Saxon Electorate Court he was painting on textile supports since during this period few wooden panel paintings are listed in the accounts.²⁶ The proportion of pictures painted on canvas increased noticeably in the 1520s (cf. app. II). Cranach painted a range of subjects, religious and secular, for different purposes on textile supports. They constitute works of widely varying scale, technique, status and value. Corresponding to recent research in early canvas painting,²⁷ the question of why Cranach worked on textile supports finds various answers.



Subjects and function

Fabric supports, which were flexible, lightweight and comparatively cost effective, took on a special significance in decorative painting. Many works served to adorn architecture and functional items of daily life. Frequently they were made only for special occasions.¹ Painting on cloth was particularly suited to works that were needed quickly. The Cranach workshop was responsible for embellishing items of equipment and ornamentation for use during weddings, Shrovetide revelries, tournaments and jousting contests, including insignia of various kinds, targe and shield cloths, flags, racing banners, coats of arms and horse trappings (*renndecken* for 10 *gulden* each in 1527, 2 *gulden* each in 1541, 1543 and 1546, respectively, app. II, 154, 248, 254, 283,

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Workshop of Lucas Cranach the Elder, detail from **The Tournament Book of Johann Friedrich I the Magnanimous**, 1521-34. Kunstsammlungen der Veste Coburg.

cf. fig. 196). The numbers of items produced for temporary use were large, the costs by comparison rather low. In doing this, Cranach assumed the traditional duties of his office. In the 1480s, court painter Meister Cuntz had also produced numerous such works.²

A distinct group of the canvas paintings were preparatory cartoons or inexpensive substitutes for tapestries. Heinrich von der Hohenmuel, a carpet weaver, produced a work after a painted design (*patronn*) by Cranach.³ In 1545, ten large-scale preparatory cartoons were painted in his workshop at the cost of three *gulden* per item plus canvas from Colditz (app. II, 272). The elector had one of these cartoons hung in his castle at Torgau in a gilded frame. In this instance, the painted cartoon was a substitute, at least temporarily, for the not yet finished wall hanging.⁴

According to invoices and inventories, the majority of Cranach's canvas paintings were clearly intended for permanent presentation. The function of numerous works was to embellish interior design. His workshop decorated ceilings with cloth paintings in several important buildings. In 1533, Spalatin describes Cranach's 'painted cloth on the ceiling in the castle at Altenburg' (app. II, 172). Statements of accounts and inventories prove the existence of a considerable number of ceiling decorations on textile supports in the castles at Wittenberg and Torgau. There were at least 15 rooms in Schloss Hartenfels embellished in this manner. Whole ceilings were covered or the paintings were incorporated between the wooden beams. The paintings depicted coats of arms, escutcheons or what are described as 'clouds with little angels'. There was also 'foliage with historical scenes' in the castle at Wittenberg⁵, and in the castle at Torgau *Waterfowl Hunts* in the Chamber of Mirrors and *Justice and Temperance* in the Apothecary's Chamber. Presumably in the same building there was also *The Saviour*, *The Ascension of Christ* and *The Pope's Descent into Hell* (cf. fig. 198) carried out as textile ceiling paintings.⁶ Several of these paintings were set into a wooden framework construction with rosettes. Occasionally friezes painted on stucco in the form of grotesques⁷ or historical scenes⁸ surrounded the canvases above and below the ledges (fig. 211).

By far the largest number of cloth paintings was intended for display on a wall.⁹ In large formats, they combined the monumentality of murals with the portability of tapestries. Most of these large-scale works were stretched and remained in place for long periods¹⁰ in the same way as the ceiling paintings. Some of them were enormous in size, such the *Cloth with Hares*, measuring 8 × 28 *ellen* in size (i.e. c.4.50 × 16 m, app. II, 276).¹¹ Numerous large-scale

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Peter Troschel (1620– after 1667), **The Princes Dining under the Vines**. Copper plate engraving after Cranach's canvas painting of 1545. Nuremberg, Germanisches Nationalmuseum.



works have memorial and decorative purposes: animals, hunting scenes, tournaments and *veduta* are documented. Paintings such as a 'rutting deer' or other 'game courtship displays', 'a large fish', 'a sow and monkeys' are not known to exist as panel paintings.¹² However, it can be assumed that the depiction of waterfowl, stag, hare and bear hunts was similar to those preserved on panel paintings, only larger in scale.¹³ Together with his workshop members, Cranach also painted a view of the castle at Torgau, the mine at Schneeberg, a view of Magdeburg as well as the siege of the fortress Wolfenbüttel (cf. app. II, 245-256) sometimes on very large canvases. He produced several versions of the latter painting depicting the great victory of the Electorate Saxony and Hesse over Heinrich, Duke of Brunswick with a documentary purpose and dispatched them to those such as Philipp of Hesse and the City Council in Hamburg.¹⁴ The canvas listed in an inventory as *The Princes Dining under the Vines* (1545), which has survived in the form of a later engraving by another hand¹⁵ (fig. 197), must also have been of considerable size. It was too large to be mounted in the castle at Weimar (app. II, 292, 293).

Most canvas paintings described in invoices were no larger than easel paintings. Approximately half of the 130 canvases listed in invoices with a title or a description were portraits.¹⁶ They were commonly life-size bust or full-length paintings, which depicted emperors, kings, princes, dukes and bishops.

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Lucas Cranach the Elder, **The Pope's Descent into Hell**, c.1538. Drawing on paper, 23.5 × 19.8 cm. Bamberg, Staatsbibliothek.



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Albrecht Dürer, **A Freak Wave Carries Off a Nobleman's Wife**, c.1498, Copper plate engraving, 24.6 × 18.7 cm. Düsseldorf, museum kunst palast, Graphische Sammlung (K 1924-115D).



In 1537, Cranach painted what he described as the 'whole family tree' for Schloss Hartenfels on eleven canvases for 80 *gulden* (app. II, 222). These were all portraits with coats of arms as well as biographical detail in verse form. According to an inventory dating from 1563, there was also a family tree with 36 individual full-length and life-sized portraits painted in an aqueous medium on cloth in the Great Hall.¹⁷

It may be that some portraits were *modelli* or reference material and were used as preparatory sketches for the official portraits. Correspondingly, in 1543 Cranach received a series of portrait studies on cloth from a Peter Spitzen at Brunswick (app. II, 256). During his imprisonment between 1550 and 1552, Johann Friedrich I repeatedly commissioned Cranach the Elder to paint his portrait on canvas not as studies but rather as gifts (app. II, 316).

Approximately 20 per cent of the canvas paintings listed in the invoices showed scenes from the New Testament. These, apparently at Luther's instigation, frequently included didactic subjects such as *Christ and the Woman Caught in Adultery* and *Christ Blessing the Children*.¹⁸ This latter subject also survives on wooden panels in more than 20 variations.¹⁹ A smaller percentage depicted historical and allegorical scenes from mythology and antiquity. *Venus, Diana and Actaeon*, *Lucretia*, *Hercules with Omphale*, *The Judgement of Paris* and *Charity* are all subjects, and also appeared contemporaneously in panel paintings.²⁰ Cranach thus adapted the new humanist and mythologi-

cal pictorial content emanating from Italy²¹ to painting on canvas. Only a few works represented scenes from the Old Testament (*Adam and Eve*, *Judith*, *Sodom and Gomorrah*). Notably absent from the accounts are records of the Virgin and saints depicted on cloth.²²

The subject matter of some canvases is highly original such as *A Cloth Depicting Hares Catching and Roasting Hunters* ('*ein tuch, da dij hasenn die jeger fahen und brathen*'), *The Emperor's Ten Dwarves* ('*die zen zwegke des Kaisers*'), *A Freak Wave Carries off a Nobleman's Wife* ('*ein mer wunder furt eim Hern sein weib hinweg*'), cf. fig. 199),²³ *The Seven Virtues* ('*die sieben tugenden*'), *The Gospel Story of the Stoning of the Prophets in the Vineyard* ('*das Ewangelia vom weingarten, da sie die profetten steinigen*') or *The Ascension of Christ and the Pope's Descent into Hell* ('*Christus himmelfahrt und des babsts hellefart*', cf. fig. 198).²⁴ Among almost a thousand wooden panel paintings catalogued by Friedländer and Rosenberg in 1978,²⁵ portrait subjects also predominate just as in the case of the recorded canvas paintings. As with works on cloth, panels include scenes from the New Testament as well as mythological and allegorical subjects. A noticeable difference is the significantly higher proportion of devotional paintings on panel depicting the Virgin and a smaller number of works showing animals, hunting scenes, tournaments and *veduta*. With his large-scale canvas paintings, Cranach was apparently fulfilling the elector's wish to create a 'reality' perceptible to the senses within the castle chambers.

There must have been several reasons why textile supports were used to such an extent. From 1518/20 onwards, elements of Reformation thinking are increasingly reflected in Cranach's works.²⁶ This development corresponds to an increase in the production of canvas paintings. Whilst rejecting Lenten veils and other 'painted covers', Luther did not object in principle to painting.²⁷ For him paintings as well as texts should be simple, clear and unambiguous.²⁸ Probably the less ostentatious and less glossy surface achieved with paint on canvas was even more in keeping with the changing perception of religious devotion.²⁹ Similar to woodcuts, the fact that paintings could be produced more quickly and in greater numbers could be of service in propagating this new religious body of thought. It is now impossible to establish the extent to which canvas paintings differed in style from wooden panel paintings depicting the same subject matter.³⁰ It seems likely that larger formats and different techniques went hand in hand with stylistic variations. In general, the slightly grainy texture of canvas is suited to a looser, freer style of painting. Precision and detailed drawing, equivalent to that achieved by Cranach on smooth supports, can hardly be obtained on even the most closely woven, finely ground canvas.³¹ Possibly the preference for canvas supports

also relates to different viewing distances as documented with *sopraportes* and other paintings presented higher up on walls (see p. 253).

Paintings on canvas offered an obvious advantage over wooden panels since they could be rolled up and packed in crates and thus transported more easily from the painter's studio to the final location.³² On 21 January 1546, Duke Albrecht of Prussia from distant Königsberg expressly commissioned from Cranach several paintings 'to be executed on cloth' (app. II, 278). In a letter dated 16 June 1578, Elector August placed a commission with Cranach the Younger for portraits of Elector Johann Friedrich I and Duke Moritz to be painted in 'oil paint' on canvas 'as these can be dispatched long distances across country'.³³ A few years earlier, as a result of the war in which he was embroiled, Johann Friedrich I was forced to have even very large canvases transported. In February 1549 and March 1550, he issued instructions while in captivity for cloth paintings, which had been brought rolled up in crates to the castle at Weimar to be transferred to Weyda or Wolfersdorf as they were too large to be hung (app. II, 292-299).

Cloth would have been the obvious choice for large-scale works. Planks were not a suitable material for such large formats because of their weight and physical limitations. Moreover, the dimensions of the doors and windows through which the panels had to be conveyed placed restrictions on size. A particular advantage of textile supports was that large-scale pictures could be sewn together from individual pieces.

The use of fabric also corresponded to Cranach's efficient workshop organisation. In addition to their function as a substitute for wall hangings, unvarnished paintings could replace painted wooden ceilings and murals. The matt effect of their surface³⁴ obviated the problem of light reflection, which allowed for such paintings to be viewed from various angles. In contrast with murals, large-scale ceiling and wall paintings on canvas could be finished in the Wittenberg workshop, transported cheaply and assembled within a few days. Assistants in the studio had a huge store of designs and patterns at their disposal. In addition, they could continue production without being heavily dependent on the seasons or building works. Cranach himself was able to design commissioned works and supervise their production without having to travel continuously between the various palaces. Similarly, mistakes could be rectified more easily, where necessary. The move into the new, larger studios (now Schloßstraße 1) after 1518³⁵ also provided suitable conditions to produce large-scale paintings. In one of the buildings that was most likely used as a workshop, there is a room, which is two storeys high (see p. 273).³⁶

In 1537, the ceiling painting for the Chamber of Mirrors at Schloss Hartenfels was produced in the Wittenberg workshop. Lucas Cranach spent four days in Torgau, after having taken the finished canvases there with two horses. The job of painting the chamber, including gilding the cornice ledge and painting the frieze, was entrusted to two journeymen and an apprentice who remained in Torgau for three weeks for this purpose (app. II, 226, see p. 264). The use of a canvas support offered the advantage of greater flexibility in more ways than one. For example, *The Seven Virtues* on canvas for the small chamber in the oriel of the hunting lodge in Wolfersdorf was produced by the Cranach workshop without either Cranach or one of his assistants having viewed the designated location in advance. When the picture duly arrived on 22 April 1551, the master builder reported that it was in fact three finger-widths wider than the measurements he had conveyed to the elector (app. II, 310). As a result, he had to fold the cloth. The correct measurements were taken again and sent to Cranach so that the remaining cloth for that location could be completed.³⁷ Canvas predominated in the late works of smaller scale that Cranach produced during his residency in Augsburg (app. II, 311). It is likely that additional external circumstances encouraged their use, including factors such as the absence of a studio, the copious supply of canvases in Augsburg, a centre of textile weaving at that time, as well as the encounter with Titian and his works on textile supports.³⁸

The linen: origin, formats and qualities¹

Cranach obtained his canvas from Saxony, south Germany and Switzerland. In 1537, he produced ceiling paintings on linen cloth from nearby Luckau, and in 1545 he used cloth from Colditz in Saxony for tapestry cartoons (app. II, 231, 272). In the 1530s he painted ceiling paintings and numerous portraits on canvas or *golschen* (a special quality linen cloth) from the city of Ulm in southern Germany and, for some portraits, Cranach also obtained canvas from St. Gallen in Switzerland (app. II, 208, 221, 222, 227).

Imports

The region around Lake Constance and the upper Swabian cities produced large quantities of high-quality linen. The sealed goods were dispatched in bales or barrels via Nuremberg to Leipzig,² where Cranach regularly obtained his painting materials. Canvas from Ulm and St. Gallen was noted for its extraordinary quality. Its production was based on a distinct division of labour, and it was subject to detailed regulations and strict control. At the

time there were rules in existence for yarn boilers, weft makers, weavers, bleachers and thread counters.³ The finished canvas was inspected, measured and labelled by officials. It was forbidden to sell material of poor quality or of measurements deviating from established standards. In Ulm, the term *golschen* was used to describe linen fabric of fixed size and quality.⁴ Use of hemp and cotton threads as well as foreign flax was forbidden. In accordance with the Ulm *golschen* ordinance of 1537,⁵ the weavers were required to pledge that they would only work the material in the requisite widths and lengths, and not rub or stretch it.⁶

Table 7:
Lengths, widths and thread counts of canvas according to the Ulm Weavers' Ordinance of 1575.

Description		Length (in <i>ellen</i>)	Width (in <i>ellen</i>)	Number of threads (per width)	Approx. length (in m)	Approx. width (in m)	Approx. number of threads (per cm)
Narrow canvas (<i>schmale leinwand</i>)	11	78	Five quarters (<i>fünfviertel</i>)	1200	46.7-52.4	0.75-0.84	14-16
	14	71	Half-six quarters (<i>sechshalb viertel</i>)	1400	42.5-47.5	0.82-0.92	15-17
	16	71	Half-six quarters (<i>sechshalb viertel</i>)	1600	42.5-47.5	0.82-0.92	17-19
	17	71	Half-six quarters (<i>sechshalb viertel</i>)	1700	42.5-47.5	0.82-0.92	19-21
	18	71	Half-six quarters (<i>sechshalb viertel</i>)	1800	42.5-47.5	0.82-0.92	20-22
By another hand	20	71	Half-six quarters (<i>sechshalb viertel</i>)	2000	42.5-47.5	0.82-0.92	22-24
Broad canvas (<i>breite leinwand</i>)	20	71	Six quarters (<i>sechs viertel</i>)	2000	42.5-47.5	0.9-1.01	20-22
	22	71	Six quarters (<i>sechs viertel</i>)	2200	42.5-47.5	0.9-1.01	22-25
Broad canvas (<i>breite leinwand</i>)	24	71	Six quarters (<i>sechs viertel</i>)	2400	42.5-47.5	0.9-1.01	24-27
	26	71	Six quarters (<i>sechs viertel</i>)	2600	42.5-47.5	0.9-1.01	26-29
	28	71	Six quarters (<i>sechs viertel</i>)	2800	42.5-47.5	0.9-1.01	28-31
By another hand	30	71	Six quarters (<i>sechs viertel</i>)	3000	42.5-47.5	0.9-1.01	30-33
By another hand	32	71	Six quarters (<i>sechs viertel</i>)	3200	42.5-47.5	0.9-1.01	32-36

The Ulm Weavers' Ordinance (c.1575)⁷ lists detailed regulations for canvas weavers regarding length, width and thread count (table 7).⁸ Detailed instructions as to the 13 types of canvas indicate the great diversity as well as strictly delineated qualities.⁹ Twelve were woven to a length of 71 *ellen* and one to 78 *ellen*. The width varies between one and a quarter and one and a half *ellen*. According to later references, the Ulm *golschen* specified a bleached linen cloth of one and a quarter *ellen* in width, a thread count of 1200 (per width) and a length of 66 *ellen*.¹⁰ Conversion of these measurements into metric values provided significant problems: the length of the *elle* varied in relation to location, goods and date. The Ulm *elle* was, according to drawings in sixteenth-century trade books, 67.2 centimetres in length; according to the standardisation of measurements by Johannes Kepler (1571-1630), the Ulm *elle* was equivalent to 59.85 centimetres.¹¹ Considering this variation, a canvas produced in Ulm around 1575 usually measured about 35 to 48 square metres and had a density of some 14 to 36 threads per centimetre in warp direction.

Cranach invoiced the court for canvas more often per 'piece' than in *ellen* (app. II, 121, 221, 222, 227, 276 et al.). Bales and what are described as *welen*¹² each figure only once (app. II, 231, 272). In the weavers' ordinance, a 'piece' referred to the full size in which the canvas was produced. In St. Gallen, a linen cloth was woven at a length of 130 *ellen* (c.100 m),¹³ but it was cut in four (1478) or eight (1511) 'pieces' for trade.¹⁴ In 1524, Cranach invoiced a 'piece' which measured 74 *ellen* (app. II, 121) and the Ulm *golschen* listed in 1536/38 was about 66 *ellen* in length (app. II, 221). The size varied from region to region and it is possible that as a result the price could differ.¹⁵ None of the remaining invoices list the weaving widths, which leads to the conclusion that the court chamberlain was not always kept informed about the actual amount of canvas.

For the *Waterfowl Hunts* on the ceiling of the Chamber of Mirrors in the castle at Torgau, Cranach quoted canvas to the value of 5 *gulden*, the average price of a piece of *Ulmer golschen*. In this instance, the canvas was a little larger than the surface of the ceiling to be covered, which was approximately 30 square metres. Frequently, the material required to carry out one or more paintings noted in the invoices applies only very roughly to the size of the pictures. In the building accounts for Schloss Hartenfels, two pictures already mentioned (*The Ascension of Christ* and *The Pope's Descent into Hell*) were listed for the Great Hall, one at 36 *ellen* (that is, at half a 'piece' of canvas) and the other at one 'piece', at approximately double the price (app. II, 208, 221). As a result, it is often impossible to draw conclusions from the invoices about the size of the picture; obviously, remaining pieces were left for Cranach to use

later. For example, the court painter charged for three pieces of Ulm *golschen* for 11 portraits of the princes in the Ancestral Hall (*stammstube*) of Schloss Hartenfels (app. II, 222). This corresponds to a total surface area of at least 90 square metres. Since a document from 1599 describes these paintings *in situ* as being ‘each three *ellen* in length’¹⁶ (approximately 170 centimetres), they were most likely less than two square metres in size, leaving canvas in excess.

Thread density and colour

Lucas Cranach the Elder bought imported goods, although there were several cloth makers in Wittenberg.¹⁷ Presumably, he preferred fabric of particular widths or of better quality. The painting *Christ and the Woman of Samaria* (c.1552, fig. 193) has a plain weave and a thread count of 19 to 20 threads per square centimetre; his son’s surviving canvases¹⁸ are similar, with approximately 16 to 19 threads per square centimetre. From the Ulm Weavers’ Ordinance of 1575 it is evident that this was the least densely woven quality of material. In later years, the Wittenberg workshop used canvas, which, although evenly woven, was at the same time slightly coarser, its texture influencing the painting both in terms of technique and effect. In comparison, the thread counts per centimetre of early Netherlandish canvases range from a low of 13 to 40, but fall on average between 18 and 20.¹⁹ Dürer painted in water-based technique on very fine textiles. With a thread density of 30 by 23 per square centimetre, the support of *Heracles Fighting the Harpies* (1500) corresponds to the finest canvases from the Ulm Weavers’ Ordinance. In 1519, Dürer chose a fabric with a thread density of 25 by 25 per square centimetre for the portrait of Emperor Maximilian I²⁰ and, a little later, less densely woven material of approximately 20 by 22 threads per square centimetre for the portrait of Jakob Fugger.²¹ In general in the course of the sixteenth century a tendency to use coarser materials is discernible.²² Consequently, it is difficult to draw conclusions about the choice of material in the earlier works of the Cranach family. Availability, function, scale, technique and viewing distance may all have influenced the quality.²³

In addition to its quality in strength and texture, there might be another reason why Cranach frequently acquired canvas from Ulm and St. Gallen. In 1553, the weavers in Chemnitz claimed that the recession of the bleaching industry in Saxony was due to the fact that in other countries ‘more diligence was applied during bleaching than here’ (*mehr fleiß auf die bleiche, wann hier zu lande getan*).²⁴ Apparently the bleaching techniques in Saxony could not compete with those practiced in upper Swabia and Switzerland. In St. Gallen, a detailed set of standards that was implemented for the bleaching of linen illustrates the particular attention paid to this task.²⁵ For an artist’s canvas,

white linen had considerable advantages over unbleached linen, most notably in that it only required a thin ground to achieve a paintable surface. This assumption is confirmed by surviving canvas paintings from the Cranach workshop (see p. 247).

Costs

Between 1524 and 1545, Cranach usually paid the same price of 18 *pfennig* for one *elle* of canvas.²⁶ However, in one invoice (1531) it was 24 *pfennig* per *elle* and between 1545/46, only 16 *pfennig* per *elle*. As the canvases are not described in more detail in the invoices, we do not know if there were changes in the width or quality of the canvas.²⁷

There is no clear indication from the records for any preference for canvas of different prices for the various pictures commissioned. In 1536 Cranach painted both coats of arms as well as *The Ascension of Christ* and *The Pope's Descent into Hell* on canvas at 18 *pfennig* per *elle* for the castle at Torgau, and the *golschen* used for the latter ceiling paintings serves as support for numerous portraits of princes. The canvas from St. Gallen used for portraits was not described in detail. In 1546, a large-scale picture of a tournament costing the considerable sum of 30 *gulden* was painted on canvas at 16 *pfennig* per *elle*. The year before, Cranach charged the same price when painting cartoons on canvas for a carpet maker.

The written sources examined do not allow a direct comparison between production costs for a wooden painting support and those for canvas and strainer of the same size. What is certain, however, is that the woven material was cheaper. In 1536, Cranach charged 16 *groschen* for a panel of unspecified size (app. II, 204).²⁸ In the same year, for the same price, he obtained approximately ten *ellen*, that is, four to five square metres of Ulm canvas (app. II, 208). Nevertheless, at the time Cranach in fact charged around one *gulden* for canvas in connection with a life-size, full-length portrait! Moreover, the strainer was added to the cost of the canvas. In 1537, the painter charged 2 *gulden* for 8 strainers for the ceiling paintings in the Chamber of Mirrors; that is, the members for one painting measuring some 3.75 square metres cost 5 *groschen* and 3 *pfennig* (app. II, 225). In an invoice from the same year, a carpenter was paid about 4 *groschen* to produce a frame from the painter's own wood (app. II, 227). From these records, we can see that Cranach charged the court for canvas imports and strainers separately from his own artistic output, which supports the view that he did not paint on canvas to save on his own expenses.

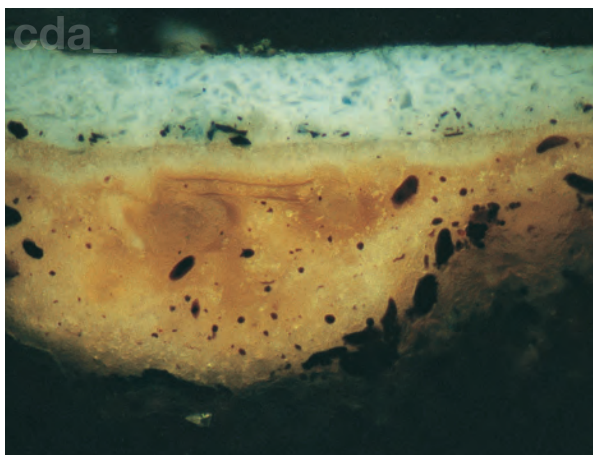
Preparation of the linen and painting techniques

In his travel journal, Albrecht Dürer describes his canvas paintings as *tüchlein*, which can be translated as ‘small cloth’ or ‘fine linen’. Today the term *tüchlein* is used to describe paintings executed in a water-based medium on a fine canvas that may have been prepared with a coat of size and, occasionally, a thin pigmented wash,¹ which is the technique of Dürer’s sixteen surviving canvas paintings.² Cranach usually refers to his painting on canvas as *tuch* (‘cloth’), seldom mentioning the word *tuchlein*.³ In line with his use of words such as *tafelein*, *buchlein* or *menlein*, the German diminutive ending *lein* signifies the smaller size of painting. Thus, in contrast with the prevailing view, Cranach’s description *tuchlein* should not necessarily be equated with the term *tüchlein*-painting as used today.⁴ However, given his familiarity with Dürer’s work and Netherlandish paintings, we cannot discount the possibility that he also painted distemper paintings on very fine canvas. The inventories mention numerous paintings executed in an aqueous medium,⁵ but in the *Christ and the Woman of Samaria* (c.1552, fig. 193) and the *Elector Johann Friedrich I in Everyday Attire* (1578, fig. 195) we found more complex ground layers and pigments bound in drying oil. Both canvases were first sized using a mixture of protein glue and flour paste (fig. 200). The fabric subsequently received a ground layer consisting of glue, paste and calcium carbonate, sufficiently thick to fill the interstices of the weave. The ground was then smoothed and covered by a thin coating of lead white and calcium carbonate bound in drying oil, in order to render the preparation less absorbent.⁶

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Johann Friedrich I the Magnanimous, 1578 (fig. 195).

Cross-section from blue background. The layers are from bottom upwards: size layer containing proteinaceous glue and starch (stained with a solution of iodine-potassium); ground layer containing proteinaceous glue, starch and calcium carbonate; thin white intermediate layer containing drying oil, lead white and calcium carbonate; grey undermodelling layer containing drying oil, lead white and black pigment; bluish paint layer containing drying oil, smalt and lead white.





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Hans Burgkmair, **The Emperor Maximilian in a Painter's Studio**, from **Der Weisskunig**, c.1518. Woodcut, 21.5 × 19.5 cm. Stuttgart, Staatsgalerie, Graphische Sammlung.

These findings are confirmed by an invoice drawn up by Cranach in 1536 for '20 *groschen* for three bushels of flour to strengthen the cloths' (20 *gr für 3 scheffel mel die tücher domit zustercken*, app. II, 204). The mixture of glue and paste as well as the layer structure correspond to the instruction given in the *Liber illuministarum*: 'To strengthen a coarse cloth, take some flour and boil it up with wood glue and strengthen with this, let it dry and then whiten it. If you wish to paint on it with oil paint, then impregnate it with oil...'.⁷ Similarly, Italian treatises on painting refer to flour paste as a component of different kinds of grounds for canvases. Cennini⁸ recommends a *gesso sottile*, to which he added a little starch or sugar. Later, for example, Vasari,⁹ Borghini¹⁰ and Armenini¹¹ took up the practice. To date, analysis has rarely identified the presence of starch in preparatory layers.¹² It has been detected together with glue and gypsum in Correggio's *Allegories of Virtue* (c.1530).¹³ Starch adhesives, derived from flour through a process of heating, develop a high bond strength in conjunction with cellulose fibres. Compared with proteinaceous glue when applied to open-weave fabric, starch adhesives have the advantage of sealing rather than penetrating. However, Volpato refers to disadvantages: 'Flour paste is very bad, because if it is too stiff it causes the colour to crack and scale off, and if it is too weak the damp causes the canvas to decay, and the mice eat it. These persons use it because they prime very bad canvas, which perishes in eight or ten years...'.¹⁴ In damp climates, the hygroscopic starch adhesives are also susceptible to micro-organisms. These characteristics, in addition to the vulnerability of the fabric, may have contributed to the low survival rate of Cranach's paintings on canvas.

Traditionally, canvas was stretched for the application of the paste-glue mix. In this process, distortions associated with tack points or lacing that occurred while tensioning the canvas became fixed. This 'primary' cusping can be found on all investigated canvases, even when the edges have been trimmed (fig. 205). We know little about the type of temporary strainers or panels to which the canvases were fixed. The wording of the invoice '8 *rham, darauf das-selb tuch gemalet*' ('Eight frames on which this cloth was painted', app. II, 225) for the ceiling of the Chamber of Mirrors leads us to assume that temporary and final strainers were occasionally identical. Nor is it possible to discern whether the canvas was first attached with nails (cf. fig. 201) or laced, as was common practice in Netherlandish painting from the seventeenth century onwards.¹⁵ A common feature of all the paintings examined is that the attachment was carried out at points a distance of approximately 7 to 11 centimetres apart. The original tacking margins of the *Elector Johann Friedrich I in Everyday Attire* (1578) survive and the original location of the primary holes

in the canvas can be identified by the pattern of cusping (fig. 205). Since the paint application goes beyond these holes, this suggests that the fabric was attached to the front face of wooden battens or a panel during preparation and painting rather than being folded over the edges of a strainer.¹⁶ Various contemporary illustrations as well as other surviving paintings depict this practice (fig. 201).¹⁷

Cennini recommends the application of ground material with a knife: 'And the less gesso you leave on, the better it is.'¹⁸ The ground should be applied as thinly as possible and smoothed once more when dry. His instructions correspond to observations during a technical examination carried out on the paintings from the Wittenberg workshop. Here the use of white linen had considerable advantages over unbleached linen (see p. 243). The choice of materials and the manner of application in thin layers increased the flexibility of the layer structure and made it possible to remove the canvas from the strainer, roll it up and re-attach it later at the point of destination without cracks in the ground and paint layers of the picture. This practice facilitated transport and because the preparation of the ground was relatively quick it also served an efficient workshop production. However, these paintings may have changed significantly when the white canvas changed its colour with time (cf. fig. 202).

With so few surviving paintings on canvas, it is impossible to generalise either about their preparation or about the painting techniques used. Practices may have varied considerably. Different media were used for different works. The inventories from Schloss Hartenfels, drawn up between 1548 and 1610, refer to numerous pictures painted in water-based media on canvas.¹⁹ Many of the large-scale ceiling and wall paintings but also smaller works such as portraits, a *Judgement of Paris* and a *Last Judgement*, have been carried out in aqueous paint systems. Whether they were based on plant gums,²⁰ animal glues or so-called tempera systems²¹ and applied in thin washes or substantial layers, can not be distinguished. In 1486, one of Cranach's predecessors as court painter, Meister Cuntz, took also delivery of five pounds of wax (4 *groschen* per pound) in addition to different materials and blue pigment, when producing flags and banners.²² The purpose of the wax may have been to provide weatherproof paintings on textiles for use in the open.²³ None of any of these items has survived.

In 1552, Cranach entered in the accounts '20 *floren* for a [Judgement of] Paris on cloth with oil paints' (app. II, 316). The surviving *Christ Blessing the Children* (c.1540/45, fig. 192) and *Christ and the Woman of Samaria* (c.1552, fig. 193)

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Detail from **Christ and the Woman of Samaria**, c.1552 (fig. 193).



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Detail from **Johann Friedrich I the Magnanimous**, 1578 (fig. 195).



are oil paintings.²⁴ Since earlier invoices do not mention the media, we do not know for certain when Cranach first started painting on canvas in oil, or what proportion of the works on canvas were executed in oil or in aqueous media. It is, however, evident that Cranach adopted oil painting on canvas before his first meeting with Titian in Augsburg in 1550/51.²⁵

The picture *Christ and the Woman of Samaria* was underpainted in *grisaille* before being finished mainly with thin layers of oil paint and glazes (fig. 202). This technique is very similar to the method Cranach used on wooden panels such as *St John the Baptist Preaching* (1549)²⁶ and *The Conversion of St Paul* (1549, FR 433). On the canvas portraits of Gregor Brück (1557, fig. 194) and Elector Johann Friedrich I (1578, fig. 203),²⁷ painted by Cranach the Younger, there is no grey undermodelling, as with many portraits painted on panels. No differences in the choice of pigment have been established to distinguish between panels and canvases. For example, smalt, the blue pigment used on the canvas paintings *Christ and the Woman of Samaria* (c.1552) and the *Electo- tor Johann Friedrich I in Everyday Attire* (1578), has also been identified on the *Kemberg Altarpiece* (1565) on a wooden support. While Dürer's paintings seem to conform to late medieval *tüchlein*-painting, it can be established that Lucas Cranach the Elder also painted in oil on canvas, which gradually became the dominant technique in Europe.

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The Spiral Staircase (Großer Wendelstein) with the chamber of mirrors, a part of the Johann Friedrich Wing of Schloss Hartenfels at Torgau.



Presentation and evaluation

Large paintings were removed from the strainer, rolled and packed in crates for transport. In 1550, the elector's secretary, Hans Rudolff, entered a record of a locked 'crate' containing several of Cranach's painted canvases.¹ The aforementioned instruction by the elector that those canvases, which could not be 'hung or put up' in Weimar should be transported to Weyda or Wolfersdorf (app. II, 299) leads us to presume that certain large-scale paintings were, like tapestries, at least temporarily hung on bars.² However, at their final destination, the majority of canvas pictures were mounted on strainers for display ('3 gr ...dem tischer fur 2 rennen zcu machen geben darauff die renner die Juditt unnd Lucretia gespannt'; '14 gr dem tischer von denselben leisten darauff die tuch gezogen sind.', app. II, 83, 208). There is no firm evidence of strainers with wooden panels inserted into the open spaces³ of the kind known to have been used by Mantegna⁴ or in the Netherlands.⁵ Sometimes a local carpenter was commissioned to make strainers that would fit into the architectural surroundings. On the occasion of his visit to Augsburg in 1552, Cranach arranged for a refund of the amount that he had paid the carpenter for 'cloths to be remounted' (app. II, 316). Not one of these original strainers has survived. The stretcher of *Christ and the Woman of Samaria* (c.1552) as well as those of *Gregor*

Brück (1557) and *Elector Johann Friedrich I in Everyday Attire* (1578) date from a later period.

Presumably for reasons of handling, reduction of weight and possible deformation of the canvas, large ceiling paintings were subdivided into sections and the fabric mounted onto several strainers. At Schloss Hartenfels, in the Round Chamber facing the Elbe (*ronthe stuben gegen der elb*), there were two 'pieces of canvas' mounted on 24 strainers, and in the Chamber of Mirrors (fig. 204), the *Waterfowl Hunts* was attached to 8 strainers (app. II, 225, 227).⁶ In the Duke Georg Chamber in the castle at Wittenberg there were 20 strainers. Whereas we know little about the methods of stretching the canvas during the painting process, invoices and technical examination provide information about methods of mounting the canvas on the final strainer. There are repeated charges for nails for this purpose ('2 ß den malern zu den tüchern (nägel nämlich)'; '15 gr fur klein und grosse negel', app. II, 170, 208). As with other paintings of this period,⁷ the canvas of the *Elector Johann Friedrich I in Everyday Attire* (1578) was originally stretched and nailed to the front of the strainer rather than folded over the edges. Stretched in this way, the frame would have covered the nails and the edge of the canvas, which was painted black (fig. 205). The black border, two centimetres wide, may have served as a painted interim frame and as a guide for those responsible for stretching the canvases when the paintings reached their final destinations. Similar black-painted edges can be found on numerous Netherlandish, Saxon and Italian distemper paintings.⁸

In addition to tacking the canvas to its final strainer, the method of stretching the canvas in its decorative frame might also have been practised. Examples of this method survive in Netherlandish paintings of the early seventeenth century.⁹ There are references in Cranach's invoices to both 'battens' (*leisten*) and 'frames' (*rhamen*) on which to stretch canvases. It is possible that this occasionally refers to the decorative frame: '14 gr dem tischer von denselben leisten darauf die tuch gezogen sind.'; '13½ gr vors golt auf die leisten zu vorgulden, auf die leisten Duktials [?], sein die jungfrauen gemalt'; '2 fl fur 8 rham, darauf dasselb tuch gemalet'; '2 fl 3 gr idem von 15 rhamen anzustreichen ufm sal und frauenszimmer, daruf die fursten sind gekontrafet, blaw, schwarz und mit rößlein an der seiten von iglichen 3 gr' (app. II, 208, 316, 225, 239). In support of the suggestion that the strainer and the decorative frame could be one and the same, it is interesting to observe that not one of the invoices lists both types of frame at the same time. But, it also seems possible that, in accordance with widespread contemporary practice, simple mouldings were nailed onto flat tacking margins into a strainer behind the canvas.¹⁰

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Detail from **Electoral
Johann Friedrich I the
Magnanimous**, 1578 (fig. 195).



There are repeated references in documents to stretched canvases of different sizes and subject matter being nailed to ceilings and walls, indicating that they were permanently set in place with nails.¹¹ Only one source from 1508 refers to the use of hooks. In that case, fourteen hooks were inserted into the wall in order to hang a cloth showing the coats of arms of dead princes and bishops.¹²

A letter written in 1491 about Mantegna's painting on canvas in water-based media states 'in doing so they shall be finished sooner, be more beautiful and more durable, and so say all experts in this practice'.¹³ The ability to paint using a fashionable water-based technique on cloth¹⁴ was clearly one of Cranach's skills that was highly valued by the Wittenberg court. As court painter, he was called upon to rapidly execute different commissions originating from a patron who sought to fulfil his personal maxim to decorate his residences for purposes of prestige.¹⁵ The short time it took aqueous binding media to dry offered the promise of rapid completion. In addition, the optical characteristics, size, costs and mobility greatly influenced the esteem in which his paintings on canvas were held.¹⁶ Cranach's move towards oil technique suggests that gradually the advantages of this support were more highly regarded. 'Simple' paintings on canvas represented the principles of the new Lutheran theology and they were valued as pedagogical tools for the religious education of the devout viewer.¹⁷

The prices for wooden panel and canvas paintings alluded to in account books are very difficult to compare because of a lack of precise detail. What is evident is that the level of payment was determined by expenditure in terms of material and time rather than the type of painting. In 1522, Cranach received 2 *gulden* for a picture of *The Judgement of Paris* on wood (app. II, 102), 1 *gulden* for a portrait of the elector (app. II, 102), 5 *gulden* for a large *Virgin* (app. II, 103) and

12 *gulden* for two so-called *teffeleyen* (small panels, app. II, 108). By comparison, in 1524 a portrait of the elector on canvas cost 5 *gulden* (app. II, 121) and a picture of *The Judgement of Paris* and a version of *Aristotle and Phyllis* together cost 16 *gulden* (app. II, 122).

The number of works occurring in the invoices is revealing: in the years 1505 to 1529, more wooden panels than canvas paintings are listed in the available written source materials. In the 1530s, the ratio is more or less balanced and then, in the 1540s and early 1550s, textile supports predominate. The choice of the support was usually the patron's and not the painter's, and the proportion of works Cranach carried out on canvas, from small pictures to large decorative series, suggests that this became the preferred support. More and more high-ranking persons had their portraits painted using this technique. In September 1550, the elector ordered a portrait of his son to be sent 'painted on panels or cloths' (app. II, 302), therefore implying that the two supports were apparently of equal value. During his imprisonment, the elector repeatedly and expressly concerned himself with the cloth paintings placed in safe storage. At Schloss Hartenfels there were a large number of canvas paintings, both in private and in official rooms. Some of the smaller formats were hung higher up or served as *sopraportes*, others were presented side by side with panel paintings. There were textile as well as wooden panel paintings in the Princes' Chamber, Oriel Window Chamber, Bedchamber, the Ladies' Chamber, the Young Men's Chamber, the so-called Bottle Tower and the Chamber above the Spiral Staircase (*Wendelstein*, fig. 204).¹⁸ Canvas paintings predominated in the Great Hall and to appreciate the significance of these works, one must realize that they were also designed to serve the aims of foreign policy.¹⁹ At the time this practice was not singular: in England, Hans Holbein the Younger painted portraits and several large canvases in a water-based technique, for example, the *Triumphs of Riches and Poverty* for the dining hall of the Hanseatic merchants in London and also *The Battle of Théroutanne* for a banqueting hall at Greenwich commissioned by King Henry VIII in 1527.²⁰ His collection also contained a portrait of Elector Johann Friedrich I on canvas, probably painted by Cranach.²¹ In Italy the collections of the Medici and other leading Florentine families included numerous Netherlandish painted cloths, which were also presented next to panel paintings.²²

In the various residences of the Wittenberg court, Cranach's large-scale wall and ceiling paintings merged with the architecture, vivid colours and easel paintings on different supports creating a unity of individual and representative diversity. Canvas paintings were popular with the court, valued for their specific optical and technical characteristics, not just as inexpensive substitutes or practical alternatives.

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IV

Painting on other supports

Parchment

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Lucas Cranach the Elder,
**Portrait of a Man, Perhaps
a Mayor of Weißenfels,**
1515. Parchment on panel,
42.2 × 28.3 cm. Staatliche
Museen zu Berlin, Preußischer
Kulturbesitz, Gemäldegalerie.

Judging from preserved works, Cranach and his workshop members rarely painted on parchment. Examples which survive are a disparate collection of portraits as well as various coats of arms painted over a fairly long interval of time. Amongst them are the *Portrait of a Man, Perhaps a Mayor of Weißenfels* (1515, fig. 206),¹ *Gerhard Volk* (1518, FR 126),² the *Portrait of Martin Luther As an Augustine Monk* (c.1523/24),³ the heads of *Christ and the Virgin* (c.1516/20, fig. 207)⁴ and, from a later period, the *Head of the Virgin* (c.1540)⁵ as well as the *Portrait of a Man* (1545)⁶ ascribed to Cranach the Younger. These are neither studies for portraits of the kind surviving in considerable numbers on paper supports or, as in the case of a head of Luther,⁷ on parchment, nor are they highly official portraits by Cranach when he was the court painter. Accordingly, judgements of the paintings on parchment have differed widely in the past. The *Christ and the Virgin* in Gotha has been interpreted both as a 'workshop model' and as '*The Intercession of the Virgin*', in other words, a finished work.⁸ What these portraits have in common is that they were predominantly executed in an oil medium. In the choice of this binding medium they differ, for instance, from the *Crucifixion* in Cranach's so-called *Stammbuch* (family chronicle) of 1543⁹ or that of the *St Catherine* (c.1530).¹⁰ These latter works derive more from the tradition of illumination in watercolours or body colours on parchment and do not figure in these investigations. If the number of items on parchment in Cranach's surviving work is limited, references to such works in accounts and letters is even less prevalent.¹¹ Compared with his contemporaries, however, Cranach was not an exception in occasionally choosing parchment. Albrecht Altdorfer, Hans Burgkmair, Albrecht Dürer, Niklaus Manuel gen. Deutsch, Hans Holbein the Younger, Giovanni Bellini and Jan Gossaert also painted on animal skin.¹² What is significant is that this material was so often used for portraits. For example, the surviving examples of Dürer's oil painting on parchment are without exception portraits.¹³

There are numerous examples north and south of the Alps from the twelfth to the early fifteenth century where wooden panels were covered with animal skin.¹⁴ It is often assumed that this would have disguised the faults in

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Lucas Cranach the Elder, **Christ and the Virgin**, c.1516/20.

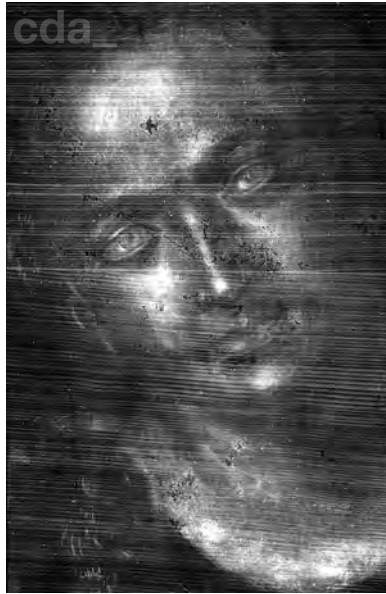
Parchment on panel, 34.2 × 52.7 cm. Gotha, Schlossmuseum.



the panel and reinforced the joins. It may also have been intended to reduce later cracking of ground and paint layers.¹⁵ Another reason to use parchment might be its convenience and portability when not attached to a panel, as is assumed to be the case with Holbein's portrait of Anna of Cleves.¹⁶ In the course of this research it was not possible to establish for certain whether Cranach's works on parchment were glued to a wooden panel before being painted or not.¹⁷ Köhler asserts that the *Portrait of a Man, Perhaps a Mayor of Weißenfels* (1515, fig. 206) was not originally mounted on an auxiliary support.¹⁸ Its history shows that it was at one point attached to wood since it has been transferred from wood to canvas and then once more attached to a wooden support. The badly damaged edges of the painting prove that it was for some time either not attached, or very inadequately attached, to a support. On the other hand, the lack of obvious cracks in the flesh paint suggests that the parchment was laid on an auxiliary support early on. A report of a restoration detailed in 1956¹⁹ describes the transfer of the portrait of Luther on parchment (c.1523/24) from beechwood to a beech plywood board. As Cranach also painted *Luther As Junker Jörg* (c.1521/22) on beech, the parchment of the other portrait might well have been attached to a beech wood panel originally. The parchment with the *Head of the Virgin* (c.1540) in Munich is glued onto paperboard. The supplementary support for the Gotha *Christ and the Virgin* on parchment is an old oak panel, which according to dendrochronology

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Christ and the Virgin,
c.1516/20 (fig. 207). Detail of
X-radiograph.



logical examination could be contemporary (fig. 207).²⁰ It is not necessarily original and it is unusual because Cranach rarely used oak (see p. 48). On the reverse of the panel with the portrait of Gerhard Volk on parchment there are inscriptions, possibly dating to the sixteenth century and indicating that it is the original support.²¹ Technical examination of this picture could perhaps shed further light on whether the parchment was mounted on the auxiliary support before painting.

The parchment of the *Portrait of a Man, Perhaps a Mayor of Weißenfels* has only a very thin preparatory layer filling the pores of the skin. It is white or, as a result of a few red pigment particles, tinged pink and contains traces of calcium, silicon, sulphur and potassium. Since from its earliest use, the pores of the parchment were filled with pumice, lime, chalk or clay during manufacture to create a suitable surface for painting, it seems possible that we are detecting traces of such a treatment.²² Similarly, microscopic examination of the paintings revealed no substantial ground layer²³ on either the portrait of Martin Luther or the *Christ and the Virgin*. These observations tend to support the hypothesis about Dürer's paintings advanced by Heimberg that the parchment is to be regarded not so much as an independent support or a protective device for the joins of the panel, but rather as a preparatory surface, equivalent to a ground for painting.²⁴ Over successive generations, painters were aware of and had appreciated its qualities as a material for their drawings as

well as their watercolours and paintings in body colours. The semitransparent hue of the animal skin and its compact surface may have been particularly useful in refining flesh tones and may have been the reason for its increased use as a support for portraits. One of the earliest portraits on parchment is that of Duke Rudolf IV of Austria (c.1365).²⁵ Paintings by Altdorfer,²⁶ Dürer, Deutsch²⁷ and others²⁸ were also painted directly on ungrounded animal skin. At the time in Flanders and Italy, portraits painted on parchment or paper were also incorporated into larger pictures;²⁹ as far as Cranach's surviving work is concerned, there was no evidence of this practice.

As well as painting, Cranach worked in pen and ink on parchment. For example, in 1515 he illustrated some of the pages of a prayer belonging to Emperor Maximilian I.³⁰ At the same time, he sketched the *Translation of St Mary Magdalene* in black ink on parchment.³¹ The *Portrait of a Man, Perhaps a Mayor of Weißenfels* (1515, fig. 206), was painted directly over this ink sketch with no further underdrawing discernible. The face was captured with particular speed. It appears as if Cranach, driven by an insatiable creative urge, had paid little attention to either the type or the preparation of the support and wasted no time obliterating the pen and ink drawing before fixing the facial features with paint. As a result of the increasing transparency of the flesh tones, the drawing of the Magdalene is visible today even in normal light. There is an obvious discrepancy between the lively and assured brushstrokes of the face and the somewhat mechanical execution of clothes, hands and book, suggesting that the portrait was executed in two distinct phases. Whereas the face was finished off wet in wet – for instance, the eyelashes were traced in the flesh paint while it was still not dry – the painting of the ornamental fittings on the book using the sgraffito technique definitely required the full drying time. These observations support the theory that in Cranach's workshop there was a fluent transition between portrait study and finished portrait (see pp. 301-311). Furthermore, the differences in style and painting technique between the face and the hands lead us to hypothesise a division of labour in completing the picture.³²

The heads of *Christ and the Virgin* on parchment (c.1516/20) may be a surviving example of a workshop model. Unlike the portrait of Martin Luther (c.1523/24),³³ there is no brush underdrawing.³⁴ The faces are executed in a particularly careful and painstaking technique (fig. 208). The X-radiograph reveals a distinct 'relief' formed with sweeping brushstrokes characteristic of the master. In contrast to the heads, there is hardly any modelling in the dresses. The work might well have been intended to serve as a model

for numerous pictures. This suggestion finds confirmation in that there is a slight variant of the female face used for the *Head of the Virgin* in Munich (c.1540),³⁵ which also appears in another completed painting of the Madonna.³⁶ A link has also been established between the head of Christ and the picture *Christ and the Woman Caught in Adultery* (c.1520, FR 129).³⁷ Schade's hypothesis that the heads of *Christ and the Virgin* might be a version of *The Intercession of the Virgin* after Robert Campin's painting³⁸ found no further confirmation through the examination and restoration carried out by Möller.³⁹ It is more likely that the heads represent a link between portrait studies on paper and finished paintings on panel.

In the case of the *Portrait of a Man* (1514, FR 62) and *Johann Friedrich I of Saxony and His Wife Sibylle of Cleves* (1532),⁴⁰ the coats of arms have been painted on sheets of parchment and glued to the reverse of the wooden panels.⁴¹ Early in his career, Cranach painted coats of arms directly onto the thinly grounded verso of portraits (see p. 222), he later glued on illuminated prints. The use of parchment here could be linked to his drive for efficiency. It may be that patterns were copied by overlaying a semi-transparent sheet of parchment and tracing them.

Parchment was very suitable for stencils and tracings. An instruction in the Tegernsee Manuscript, for example, refers to parchment as a material used in the production of patterns (*patrone*)⁴² and in the catalogue for the exhibition in Kronach (1994), the drawing of *St Catherine* (c.1530) with perforated outlines was interpreted as a pounced cartoon and attributed to the Cranach workshop.⁴³ The support is a re-used sheet of parchment from a fifteenth-century liturgical manuscript. The text, which has been for the most part erased, is covered by a thin lead white ground on which the drawing was first laid down in silver point and lead stylus and then completed in what was originally pink, but is today brownish brush painting. The architectural background was subsequently overpainted in indigo. Contour lines as well as the sides and the upper edge of the frame were perforated with a needle. As the pinpricks actually follow the lines of the overpainting, there are doubts as to whether the drawing was originally executed specifically for use as a stencil.⁴⁴



Paper

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Lucas Cranach the Elder,
Portrait Study of a Man,
 c.1510/15. Paper, 26.8 × 18.7 cm.
 London, The British Museum.

Although paper was a common support for painting in Cranach's workshop, the technical examination of these works does not fit the scope of this research. Amongst others, the numerous illustrations in the Spalatin Chronicle (c.1530) belong to this category.⁴⁵ The paint was applied in both semi-transparent and opaque effects using aqueous media. Occasionally highlights have been applied in silver and gold-coloured metal powders. Numerous studies painted on paper served as a preparation for panel and canvas paintings. There is evidence that the studies of dead poultry in Dresden (fig. 15) were used in several paintings around 1532.⁴⁶ The majority of the surviving portrait studies on paper are pictorial records drawn in front of the sitter.⁴⁷ The use of paper and paints that dried quickly enabled the painter to rapidly record important physiognomical features. Other items of work on paper such as *The Heads of Three Young Women* (c.1530/32)⁴⁸ could be copies of important elements of paintings intended for multiple use (see p. 299). In contrast to parchment, no finished oil paintings on paper have yet been associated with the Cranach workshop.⁴⁹

The head studies were executed in various techniques. Whereas the *Portrait of a Peasant* (c.1506)⁵⁰ and the *Portrait of a Man* (c.1510, fig. 209)⁵¹ are drawn directly onto good-quality paper without further preparation, the sheets of paper used for the later works in Reims were coated with a thin calcium-based ground and a yellowy tint made from a mixture of ochre and lead white.⁵² In addition, the binding media used apparently varied between aqueous systems and those containing drying oils. What is needed is a closer inspection of the paper itself⁵³ and a systematic study of the pigments and binding media used for a comprehensive comparison with the finished panel paintings.

Metal

The painting and gilding of metals were also part of Cranach's duties as a court painter. According to the invoices, this included painting coats of arms on copper sheet, making so-called 'iron flaglets' (*eiserner fenlein*) and also the emblazoning of gutters, lanterns and bronze reliefs (app. II, 128, 165, 253 et al.). The accounts transcribed do not give any details of paintings on sheet metal. However, in 1990, Bünsche published the picture *Christ Blessing the Children* on copper, presuming it to have originated from Cranach the Younger's workshop around 1560.⁵⁴ It is apparently unique among the surviving works of the painter's family. With its relatively large format (56.5 × 76.0 cm) and its com-

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Lucas Cranach the Elder, **Gable Wall with Balcony and Soldier**, c. 1510. Drawing on paper, 20.9 × 31.5 cm. Weimar, Kunstsammlungen.



paratively early origin, this painting is a striking example of the use of copper plates as a support. Although Leonardo's treatise on painting, written around 1492, alludes to permanent painting on copper,⁵⁵ the practice of oil painting on copper support only became widespread in sixteenth-century Italy. The practice then became common in northern Europe. For example, Johann Rottenhammer, Bartholomäus Spranger, Hans von Aachen and Adam Elsheimer painted on metal plates.⁵⁶ The copper was first hand-beaten. Hammer marks are clearly visible on the reverse of the Gottorf panel of *Christ Blessing the Children*. In addition, there are parallel scratch marks, presumably produced by a tool similar to a toothing plane, that roughened the surface. Bünsche established that the plate was first covered with a thin whitish layer and subsequently with a lead white ground. On these preparatory layers he found traces of red and black dry media underdrawing covered by thin paint layers that include various corrections.⁵⁷

Mural painting and architectural decoration

In his eulogy, printed in 1509, Christoph Scheurl uses a common *topos* to extol Cranach's ability to deceive the viewer with elaborate paintings that the viewer takes the image to be the real thing. Two of Scheurl's examples refer to paintings in the *Veste* in Coburg.⁵⁸ They are a life-size stag and a set of antlers. Research has so far interpreted these paintings to have been murals,⁵⁹ despite the absence of firm evidence. They are equally likely to have been large-scale canvas paintings, since in the same context Scheurl mentions the picture of the wild boar, which the elector sent to Emperor Maximilian I. Although the possibility of there being wall paintings by Cranach from the years 1506 and

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Workshop of Lucas Cranach the Elder, detail from Grottesque-style frieze, 1537. Wall painting in the Chamber of Mirrors of Schloss Hartenfels at Torgau.



1507 in the *Veste* in Coburg cannot be ruled out, the eulogy on its own cannot be taken as evidence.⁶⁰

The surviving designs for illusionistic facade decorations incorporating figurative images (fig. 210),⁶¹ as well as a letter from 1521, do provide firm evidence that the Cranach workshop executed wall paintings. Writing to the elector, Wolf Metzsch reports that in a new house at Torgau ‘there are several places in the hall where the painting has fallen off’. He requests that ‘Master Lucas sends us one of his journeymen who would have at least eight days work...as there are no longer any painters at Torgau who could adequately paint such paintings’ (app. II, 100). This record indicates that there were painters in the Cranach workshop who were conversant with the appropriate techniques of mural painting.

Subsequent invoices point to extensive painting and decorative work undertaken by the Cranach workshop on both the interior and exterior of the castle at Torgau: ‘to paint the whole building outside and inside’ (app. II, 195), ‘thereafter we worked on the oriel outside and inside as well as in two of the chambers...’ (app. II, 272 et al.). In contrast to the ‘whitewashers’ (*tüncher*) employed there at the same time, we may imagine that Cranach and his workshop members created a lively display of wall decorations.⁶² The fact that large amounts of pigment and binding media are listed in the castle building accounts does allow the possibility that figurative wall paintings were carried out. However, in contrast to wooden panels and canvas paintings, not a single wall painting appears by title in the accounts, therefore we must assume that these were in fact rather non-figurative decorative wall and ceiling decorations.

The grotesque-style frieze in the Chamber of Mirrors of the castle at Torgau is the only certain surviving example of the activities of the Cranach workshop

in the field of wall painting (fig. 211).⁶³ In 1537 two journeymen, Pael Ryß and Hans Rentz, as well as an apprentice by the name of Bartel, worked for three weeks in the Chamber of Mirrors. During this time they were required to finish the painting, gild the ledge and carry out work on the frieze below. Cranach himself only spent four days there when he brought the canvas paintings (see p. 240). The original decorative elements of the room were a lime-plaster floor containing pulverized bricks, a beamed ceiling covered by the large canvas painting and possibly wall hangings or heavy curtains around the windows. The grotesque-style frieze ran around the whole room as a border beneath the sandstone ledge. It consisted of acanthus tendrils along with cornucopias, goblets with vine leaves, garlands and several animal, human and cherub heads merging into tendrils. Noll-Minor describes the technique of the frieze as follows: 'On a first lime wash containing some ochre to fill the pores of the architectural elements, the ledge decorations and the grotesque-style frieze were underpainted in lime-bound greyish black and the astragal and the chamfer with ochre. The painting was completed with azurite [in glue medium] and oil gilding'.⁶⁴ She continues: 'It is possible to make out a differentiation of the background through black heavy shadows in the grey underlay [vegetable black] indicating the intention to produce a relief-like effect. The tendrils and structural elements silhouetted against this background are accentuated by variable black drawing on a uniform ochre basis tone.'⁶⁵

In 1994, the investigation and restoration of the house at 4 Markt in Wittenberg by Schmidt and Kestel produced new findings. Cranach acquired the property in 1512, selling it in 1518. Three years later he took possession of it again. The high artistic standard of the decorative work in the house suggests that it was carried out by his workshop, although so far no archival evidence of this has been found.⁶⁶ The ceiling decorations are remarkable. Large illusionistically painted coffered ceilings are covered with opulent ornamentation in the form of tendrils, leaves and grotesques. They have been executed on thin lime plaster that covers the beamed ceiling. As a basic tone for the coffer panels, large-particle-size azurite was applied over a grey underpaint (vegetable black). The lively, bright orange-coloured ornamentation was painted with red lead, another red pigment (which was not further characterised), and lead-tin yellow. In another room, set against a blue background (once again azurite on grey underpaint), foliage painted in grey tones (malachite) spreads across rectangular frames.⁶⁷

Noll-Minor identifies the combined application of lime- and glue-bound paints in the Chamber of Mirrors⁶⁸ and Schmidt also suspects the use of glue-

or casein-bound *secco* painting at 4 Market Place.⁶⁹ So far there is no evidence of traditional true *fresco* painting, which has so often been suggested by researchers.⁷⁰

Judging by the accounts, the Cranach workshop worked predominantly in a glue-based technique in the rooms of Schloss Hartenfels. There are repeated charges for glue in large amounts (see p. 167). Technical examination also proves the use of oil media for gilding work in the Chamber of Mirrors. Since Cranach's invoices mention fairly large amounts of linseed oil and varnish, it is possible that oil paints or mixed binding media were used to decorate architectural elements.

The surviving account books document a much wider spectrum of pigments than have so far been identified by analysis. These have already been dealt with in detail in chapter II. The palette for wall painting is slightly different to that employed for panel painting. No doubt, as a result of experiences with varying durability of the mineral green pigments, they are more common than *verdigris*, which is preferred in panel painting. In contrast to panel painting, there is a tendency to use materials of inferior quality, such as 'low blue' (*gering blau*), 'ash blue' (*ascherblau*) or 'blue for the first lay in' (*blaw zum ersten mit anzustreichen*) in greater quantity (cf. table 5). However, given the few surviving examples, it is difficult to define mural painting techniques in a comprehensive way. Individual findings do indicate some correspondence with panels, for instance, we find examples of grey underpainting with a top layer of large-particle-size azurite bound in glue on both walls and panels (see p. 178).

The results thus far make it clear that Lucas Cranach the Elder not only employed a striking diversity of materials, but availed himself of almost the entire range of contemporary painting techniques, utilising all of them with considerable artistic dexterity. Using widely differing binding media and pigments, he painted on wood, textiles, paper, parchment, metals, stone and plaster, both inside and out. He also tackled the skill of glass painting (app. II, 191). Thus Cranach not only created individual furnishings, but also entire room decorations of impressive variety. The scope of his activity extended well beyond that of contemporaries such as Dürer or Grünewald. The diversity of his duties at the Wittenberg court and the workshop organisation are the subject of the next chapter.



Contracts, commissions and marketing

‘Anyone producing a picture at a fixed price [...] cares more about its being finished than its actual beauty. Anyone, however, expecting payment in accordance with its beauty cares more about that very beauty than the speed with which it is produced.’

Jacob of Lausanne¹

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Petrarca-Master, **Painter’s Studio**. Woodcut from **Von der Artzney bayder Glück des guten und widerwaertigen**, Augsburg (1532).

It was to humanist, educated circles in Vienna that Cranach the Elder owed his artistic influences, his commissions and possibly the beginnings of his fame as a painter. It is not known who commissioned the early religious pictures or when he started working for the Elector of Saxony, Friedrich III the Wise. The assertion that he was engaged in work on the *Veste* in Coburg as early as 1501 has been refuted.² The order for payment of 40 *gulden*, recorded in Torgau on 14 April 1505, marks the beginning of his work as court painter in the services of the Saxon elector (app. II, 2).³ From then on, for more than four decades, Cranach worked in the electorate capital, Wittenberg (fig. 213), about which Luther once remarked that its inhabitants lived *in termino civilitatis*, on the edge of civilisation.⁴ The court painter received an annual salary of 100 *gulden*, an allowance for winter and summer clothing, a horse, and board and lodging (app. II, 13 et al.).⁵ Only the most powerful courts offered terms as generous as these, and they indicate the elector’s interest in attracting an experienced painter to Wittenberg. For Cranach, the move to court marked more than a change in social conditions, it represented a great professional advancement and it had considerable consequences for his artistic production. In the rarefied atmosphere of the court, his art developed in such a way as to set it apart from mere craftsmanship.⁶ At the Saxon Electorate Court, Cranach was required to meet extensive demands; his works were in fact a means of ensuring the princes’ reputation. For Friedrich III the Wise, the exchange of gifts became increasingly important; Cranach’s paintings were presented for example to the Queen of France,⁷ to King Henry VIII of England⁸ and in 1508 the court painter was sent to Emperor Maximilian I in the Netherlands.⁹ Current judgement of Cranach’s artistic output is based above all on his surviving panel paintings, drawings, woodcuts and book illustrations. At the time,

however, he took responsibility for almost the entire aesthetic ambience of the court and, working closely with other craftsmen, he applied his skill to furthering the splendour and modernity of the various building projects. The receipts for payment issued by the court chamberlain's office provide a picture of the broad duties required of him (cf. app. II). At times the workshop was devoted almost exclusively to the decoration of the castles at Coburg, Lochau, Altenburg, Wittenberg, Weimar and Torgau (fig. 220). Cranach was called upon to supply not only easel paintings and large-scale altarpieces, but also to produce huge wall and ceiling paintings on textile supports, and he devoted time to the architecture, especially the polychromy on both the interior and exterior (see chapters III and IV). Under Cranach's guidance, the façades of houses, towers and gates were painted, gilded and inscribed. During the painting and decorating of the Johann Friedrich Wing of the castle at Torgau (erected between 1533-1536 by Konrad Krebs), he supervised the work of carpenters, woodturners and woodcarvers. Whitewashers (*tüncher*) and painters coated and embellished walls, doors, staircases and windows. The Cranach workshop supplied designs for glaziers, carpet weavers, lamp makers, locksmiths and goldsmiths. It was responsible for drawing and painting chandeliers, gilding deer horns, framing silk embroidery, supplying curtains, painting tables, benches and chests, and decorating an organ (cf. app. II).

Everyday duties even included providing decorative features for court celebrations, tournaments, court journeys and military engagements. In 1527, the Cranach workshop carried out painting work totalling 221 *gulden* just to provide the decorations for Johann Friedrich's wedding (app. II, 152). Hundreds of coats of arms and flags were printed and painted on paper, textile and metal. Almost everything that required painting or design came within the workshop's sphere of activity. Cranach and his assistants were responsible for embellishing items of equipment and ornamentation for use during tournaments, jousting contests and the like, including insignia of various kinds, armour, helmet crests, shields and halberds. They worked on carriages and painted sleighs. Monkeys, pigs' heads, 'men with long necks' (*menner mit den langen halsßen*) and the Pope along with cardinals and bishops (*der babst mit den cardineln und bischoffen*, cf. app. II, 154, 235 et al.) were produced for pre-Lent celebrations. Working to coloured designs, tailors made up costumes to be worn at court, and twice a year all servants were fitted out with new clothes.¹⁰ His activities as a designer included creating stone and wooden models for medals, medallions and memorial stones as well as drawings for the production of cannons showing 'outrageous, hideous portraits' (*unverschämten, scheußlichen bildnissen*)¹¹ that were used by 'iron cutters'

(*eisenschneider*) and bronze casters in Freiberg, Nuremberg, Augsburg and Innsbruck.¹² In 1538, he even supplied a mould for making gingerbread. In addition, there is evidence of his involvement in restoration work. In 1521, his help was sought to restore the paintings in a new house at Torgau (app. II, 100) and in 1545, he reworked five panels in the chapel of the castle (app. II, 272).

In addition to his duties as court painter, Cranach was an ambassador of sorts, extending the court's interests and public relations by accepting commissions for others. The workshop furnished numerous Saxon town and village churches with new altarpieces.¹³ Cranach also extended his activities far beyond the court: he was at the same time in the service of the opponent of the House of Wettin and Martin Luther, in both dynastic and theological terms, Cardinal Albrecht of Brandenburg, probably one of the most powerful dignitaries of the German Reformation, whilst also working for another notable opponent of this religious movement, Duke Georg the Bearded of Saxony. Between 1520 and 1525, the Cranach workshop produced a cycle of paintings depicting saints and the Passion of Christ consisting of 16 altarpieces and several individual panels (142 in total) for Albrecht's cathedral chapter and his official residence in Halle.¹⁴ Furthermore, Cranach also benefited from the general phenomenon, that more and more members of the merchant class and the bourgeoisie were commissioning works in addition to the aristocracy and secular and religious authorities.¹⁵

Examination of the wooden supports for paintings revealed that Cranach standardised his production. Most likely, he produced numerous works for sale to a general market and a broad class of clients without their being commissioned (see chapter II). Individually designed pictures must have been costly because of the time needed to make them, whereas standardised works could be produced quickly and hence more cheaply. Cranach may have sold the paintings from the workshop or on the open market, for example at the international fair in Leipzig. On non-commissioned works, stamps and signs had great significance since they represented a guarantee of quality. Jacobs has shown that, in the case of south Netherlandish carved altarpieces, stamping was especially common on non-commissioned art.¹⁶ Although the intended destination of few works is known with certainty, it is an attractive hypothesis to suggest that Cranach's serpent trademark established a standard of quality and was particularly important for gifts outside the court, commissions from the outside and work for the open market.¹⁷

In addition to his salary and an allowance for further expenses, Cranach received payment for any work undertaken on behalf of the Saxon Electorate Court (cf. app. II). When Johann Friedrich I renewed the appointment in 1552, he specifically stated that the painter was to execute ‘our own work with all diligence, and because of the money we pay him out of grace and favour, to let us have whatever work he paints for us at a somewhat lower price than he would seek from a stranger...’ (app. II, 317). Bills were settled once the work had been completed, usually on fixed dates for payment. Charges were made either for the individual works or on the basis of weeks for activities outside the workshop. Disagreements over the prices charged were apparently rare and scarcely a single invoice survives, which the elector found exorbitant. At Michaelmas in 1535, Cranach did not receive the full sum for the work supplied: ‘after my gracious lord felt that the charge for the work was too high’ (*nachdem meinen gnedigsten hern bedunckt das die arbeit zu hoch angeschlagen*, app. II, 179).

In the early years, the court chamberlain reimbursed the painter for the costs of painting materials and supports promptly and separately from the charges for the painting work.¹⁸ Gold coins were dispatched from the court to a gold beater in Leipzig and other metal leaf used was also reimbursed separately (see p. 115). In 1513 Cranach invoiced a painting with the comment that it was ‘his own paint’ (*bey seiner aygener farbe*, app. II, 56). By the 1520s with the introduction of standard formats, wooden panels were no longer produced separately for each commission and accordingly were hardly ever charged for separately. Comments like ‘such gold was all his own’ (*solch gold ist alles sein gewesen*, app. II, 197) are proof that Cranach had ever-increasing reserves of material at his disposal, and thus became less and less dependent on individual commissions. It was mainly when it came to extensive decorative programs, such as during the building of the castle at Torgau, that he drew up separate invoices for canvas and pigments. In the case of easel paintings the cost of supports, painting materials and the actual painting work were merged into one price without the court chamberlain receiving a breakdown of the individual items. The possibility cannot be discounted that by selecting less expensive pigments and more and more roughly finished wooden panels that Cranach even increased his profit (see chapter II). Surviving invoices and surviving paintings tally much too rarely to be able to draw firm conclusions about the level of reimbursement that Cranach received for the actual painting work.



Studios

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Unknown artist, **View of Wittenberg**, from the **Reisealbum des Pfalzgrafen Ottheinrich**, c.1537. Paper. Würzburg, Bayerische Julius-Maximilians-Universität (Delin. VI, 14).

The artist's studio in the castle at Wittenberg

‘There are in fact so many and such great masterpieces that every time I come to you, which is often enough, I am at a loss to know what to look at first, something new appearing every day. Wherever one turns, in every nook and cranny there is a picture.’¹ This is how Christoph Scheurl described Lucas Cranach the Elder’s studio in the Wittenberg castle in 1508. A university professor, he was certainly not just using a *topos* from antiquity in this context.² As today only about five or six panel paintings survive from the years 1508 and 1509, his comment is an indication of the scale of loss. It was common practice for painters at any time to have several ongoing projects at various stages of completion. The inventory of Filippino Lippi’s workshop on his death in 1504, as well as the one of Mathis Nithart’s workshop from 1528 record works in various states from the bare wooden panels, panels prepared with white ground alone, those with underdrawings, and through to panels listed as begun but not finished.³

In the years 1509/10, a tiled stove was installed in the painter’s studio (*malerstube*) at the castle (app. II, 39). Presumably this was the workshop where, apart from temporary arrangements in Lochau and Coburg, Cranach did the bulk of his work in these early years. No details of the size and position of the studio in the now-defunct castle are available. The court painter and his

two apprentices shared it along with other artists. According to Christoph Scheurl, the sculptor Conrad Meit also worked there.⁴ Scheurl also mentions frequent visits to this workshop by the Elector Friedrich III and his brother. It is not clear from Scheurl's account whether this is an indication of a close link with the life of the court or merely an attempt to raise the artist's status.⁵ The size of the studio apparently imposed spatial limitations on Cranach's creative activity and the continually growing volume of commissions. In 1508 he received his personal coat of arms (the highest possible honour), and only a few years later he left his studio within the castle and settled in Wittenberg. Presumably this new location offered greater entrepreneurial freedom.

The Houses at Markt 3 and 4

In 1510, Cranach was even paying *Basteisteuer*, a special tax for the Wittenberg bastion and in 1512 he became the owner of two adjoining houses on Market Square (today Nos 3/4).⁶ In the same year, extensive building work was undertaken; this, it is presumed, was to be the painter's new workshop. It is, however, not possible to prove with any certainty the existence of any features of the building from the period before 1520.⁷ In theory, at least, the fact that the houses fronting the market faced north made it possible to set up a studio with appropriate unvarying light from the north in a house, which was several storeys high, but Cranach's concern about the quality of the light is a matter for speculation only. What was certainly important was the existence of enough sufficiently large windows since bad weather and the shortness of winter days would have severely restricted working hours.⁸ Even artificial sources of light restricted the painter's ability to work and incurred additional costs. During the building of the castle at Torgau, Cranach received 1 *gulden* 11 *groschen* 7 *denaren* for 'light' when there was insufficient daylight for a full working day before 18 October 1535 (app. II, 195). In the weeks leading up to the New Year of 1536 this was about 1 *gulden* and 9 *groschen* a week for approximately 20 pounds of *licht* – probably candles of tallow or wax, which was burned to produce light. At the same time, the price was about the equivalent of one week's wage for his sons Hans or Lucas (app. II, 205, 218).

It can be assumed that it was in this new workshop that Cranach produced his first surviving large work commissioned outside the court. The *Neustadt Altarpiece* was appointed in 1511 and completed in 1513. Including the crest it reaches an impressive overall height of some seven metres (fig. p. 2, fig. 215). The size of shrine and panels (2.82 metres in height), requisite trial assemblies with sculptures and stylistic variations indicate that the painter would have needed large rooms and an increasing number of collaborators.

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Wittenberg, **Cranachhof**
at No. 1 Schloßstraße. The
building in the centre was prob-
ably the painter's studio.



Cranachhof at No. 1 Schloßstraße

In 1518, Cranach acquired what survives today as *Cranachhof* at No. 1 Schloßstraße (fig. 214).⁹ It was to play an essential part in the success of his commercial enterprise. The property is situated on the southwest corner of the market square in Wittenberg. It consists of a front-facing house on four floors with a gated side entrance and six outbuildings interlinked to create a spacious inner court. It is no longer possible to fully reconstruct the building as it had been at the time of Lucas Cranach the Elder and the Younger. The layout of the various parts of the house will also have to remain for the most part hypothetical even after more recent investigations by Großmann.¹⁰ The two- and three-storey buildings on the east and south wing were possibly the painter's studio. The buildings concerned cover a similar surface area of some 175 square metres on the ground floor. There is a gateway entrance in the southern building as well as a room extending over two floors. These features make this building seem particularly suitable for the production of large-scale wooden panel and canvas paintings. The floors of the building, some 25 metres long and 7 metres wide, are lit by windows set in the long south and north walls. Today the south façade of the building has ten windows and a doorway on the ground floor and eleven windows on the first floor.¹¹ Even the originally perhaps slightly smaller number of openings would have ensured that some of the painters had places to work in good daylight. If so, this lends further credence to a parallel drawn by Grimm about the studio scene in a picture painted a hundred years later by Jan Brueghel I, *Pictura Painting Flowers* (c.1620).¹² It depicts a large studio with at least six painters working at their easels. The easels are set up at regular intervals at 90 degrees to large windows. No comparable studio scene is known to exist in the Cranach family's

surviving work. It is possible, however, that individual prints or paintings contain elements with which the painters were familiar from their own living and working environment. There is, for example, the picture of St Jerome (1525, FR 185) who is sitting in a room with a solid wall, joists and a beamed ceiling. The layout of the beams corresponds to a ceiling found in the east wing of the *Cranachhof*.¹³

The buildings adjoining the painters' studio provided sufficient space for storerooms and workshops used by carpenters, woodcarvers, *zubereiter*, block cutters, printers and book illustrators. It is also possible that apprentices and journeymen were lodged in the guestrooms of the main house. High-ranking visitors included the exiled King of Denmark, Christian II, and Joachim I of Brandenburg. We can also envisage there being a shop, or at least a shop window, where pictures may have been exhibited for sale. The move from the castle into the town was accompanied by a marked change in the quality and quantity of production (see chapter II). When the *Cranachhof* came into use from 1518/20 it is possible to detect a significant rise in the production of panel and canvas paintings (see chapter III).

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Lucas Cranach the Elder
and workshop, **Neustadt**

Altarpiece, 1511-13. Retable
approximately 700 × 535 cm.
Painted surface of the shutters
268.5 × 100 cm. Neustadt/Orla,
Evangelische Stadtkirche
St. Johannis.



Partnership and workshop members

Carpenters

Late medieval altarpieces were usually the result of co-operation between carpenters, woodcarvers, professionals for preparation and gilding work (*zubereiter*), locksmiths and painters. The duties of the carpenters (*tischler*) could extend from not only making the supporting structure, shrine, panels and frame moulds but also carving the crest.¹ There was no clear distinction between their duties from those of the other wood-workers (*zimmermann* and *bildschnitzer*).² Investigation into the painting supports used by Lucas Cranach the Elder has revealed that during the more than four decades that he worked in Wittenberg, he employed several carpenters with different working methods. We know a few of them by name. In 1507 a Michel Tischer made the panels for an altarpiece of St Anne to be painted by Cranach (app. II, 18). This particular task can possibly be linked with the preserved predella *The Fourteen Helpers in Need* (c.1505/07) at Torgau.³ As with almost all panels produced between 1505 and 1510, this predella follows a characteristic production method (see p. 60, figs 34, 35), suggesting that Michel Tischer prepared the majority of panels used by the court painter during these years. If this is the same person as the Meister Michel Tischer who, among other things, produced doors, windows, shutters and panelling at Schloss Hartenfels between 1514 and 1517 (app. II, 63),⁴ then we have here some explanation as to why he always glued the planks of the early panels with the grain oriented parallel to the shorter dimension of the panel. For centuries this practice has remained in continuous use for the production of shutters, door panels and wainscoting.

However, it is not clear whether Michel Tischer was the only carpenter or joiner working for Cranach at this time. It cannot be ruled out that this construction method was simply a preferred workshop practice. The court chamberlain's accounts between 1505 and 1510 identify several carpenters in connection with the castle at Wittenberg. In the years 1508/09, there were seven carpenters working on 'altars' (*altarien*, app. II, 30). Of particular note is Claus Heffner, carpenter, woodcarver and subsequently master builder, who among many other items, carved a winged altarpiece commissioned by the elector.⁵ In 1508, he received 13 *groschen* for 20 lime wood planks used in the production of a work for the church (app. II, 26).

Cranach received and paid for the panels from the carpenters employed at the court. The account books reveal that at the time as the leading contractor he charged for the carpentry separately from his own work as a painter (app. II, 17, 18). He paid for wooden panels and arranged reimbursement with the

court chamberlain; the carpenters were subcontracted by the painter and the carpenters paid for the wood.

The changes in the production of panels between 1510 and 1512 (see p. 65) may be linked to the fact that at this time Cranach moved from the castle to the town and employed a different carpenter. It has not been possible to identify names with any certainty. In September 1512, in the presence of Lucas Cranach, the wife of master carpenter Hans Zinkeysen from Wittenberg was loaned 20 *gulden* (app. II, 49). Between 1514 and 1515, under the title *des Pfeffinger tischer*, in other words a carpenter working for the court, there is mention of a certain Meister Hansen Tischer of Wittenberg in connection with Cranach (app. II, 59). Records show that from 1518, Hans Zinkeysen was working in Torgau and that he was a master builder by 1523 at the latest.⁶ It is not clear if this was one and the same person. The court chamberlain's accounts also refer to the carpenters Adolf (1514, 1515, 1520, 1522), Anthonio (1519, 1523) and Ambrosius (1526, 1532) in connection with building work in the castle and the production of frames as well as protective cases for panel and canvas paintings by Cranach (cf. app. II). However, there is no evidence that they produced wooden supports for painters. In 1524, Cranach received payment as court painter of one *gulden* and 6 *pfennige* for a model of the tower at Colditz produced by Niklas Tischler (app. II, 124). Finally, it should also be mentioned that wood-turners were also involved in the production of capsule portraits.⁷

In contrast with the early years at court, Cranach in later decades hardly ever charged for wood or carpentry work separately from painting materials and the work involved. The reference to two unpainted panels as part of the furnishings for the castle at Torgau in 1536 might well be connected to the fact that, in this particular case, payment for the work of the painters took the form of weekly wages (app. II, 204, 205).⁸ This fact leads to the assumption that Cranach no longer engaged carpenters merely as a subcontractor but had integrated them into the activities of the workshop. This was not exceptional; a decree issued by the Nuremberg City Council in July 1482 made it possible for painters to employ journeymen carpenters in their workshops.⁹ This assumption seems to be confirmed following the acquisition of the *Cranachhof* at No. 1 Schloßstraße. From around 1520, Cranach increasingly painted on beechwood panels. As a result of dendrochronological investigation, Klein attributes many of the planks to relatively few tree trunks, that is to say that the trunks were used almost exclusively to make panels.¹⁰ Technical examination reveals that a carpenter hired later produced the beechwood supports while another carpenter, who had been hired earlier, continued to produce

lime wood supports using different techniques (see p. 72). Thus it is likely that Cranach bought cleaved or sawn beechwood trunks from which his carpenter produced standard-sized panels. Large quantities of boards for different purposes arrived by raft at Wittenberg on the river Elbe and in 1524/25 the escort invoices also noted beechwood boards (*buchbretter*).¹¹ There is evidence that by around 1528 at the latest, Cranach had control over timber trading and matters of carpentry. Wittenberg City Council paid him 2 *schock* 37 *groschen* and 1 *denaren* for 'a large amount of timber and pieces of woodwork to be used in the building of the Town Hall as well as partly in the building of the barn' (app. II, 157). Whereas in the course of the sixteenth century in other centres of art the tendency was for the carpentry trade to break away from the painters' workshops,¹² Cranach for many years established it firmly under his own roof.¹³

Woodcarvers

Since at least the middle of the nineteenth century, there has been some dispute as to whether or not Cranach sometimes tried his hand at block cutting¹⁴ or wood carving.¹⁵ Until now it has only been possible to guess the degree of his personal involvement. Surviving works and written sources indicate collaboration with various specialists and that he employed block cutters and woodcarvers in his workshop. As was the case with the carpenters, the areas of activity for such craftsmen were not strictly defined. One of the block cutters employed early on by Cranach could have been Symphorian Reinhart, variously described as a *sculptor* and printer.¹⁶ In 1509, there would have been several block cutters working simultaneously on the woodcuts for *The Passion of Christ*.¹⁷ In 1536, Meister Oswald Schnitzer, a carver working in Cranach's workshop, received payment of 15.5 *gulden* for 'printing 700 roses and *flammen* on paper' (app. II, 204). According to accounts in letters written by Anton Tucher (1508, app. II, 29) and the court chamberlain, Pfeffinger (1513, app. II, 55), Cranach himself even produced portraits carved in stone to be used as patterns for coins and medals.¹⁸ In 1525, the court painter wrote that he had a portrait of Friedrich III carved in wood as a model for the monument, apologising for the quality of the beard and promising to finish the bronze cast later with 'flesh paint' (*leipfarbe*, app. II, 128).

It is Scheurl, writing in 1511, who gives the earliest indication of sculptors working in Cranach's workshop.¹⁹ According to him, the now-lost *Double Madonna* in the Schlosskirche Wittenberg was made by Conradi Vangionis (Conrad Meit of Worms) in the court painter's workshop (*in officiana Chronachia*).²⁰ The woodcarver who, working to Cranach's designs, carved the life-size wooden figures as part of the altarpiece in Neustadt between 1511

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Detail from **Neustadt Altarpiece**, 1511-13 (fig. 215).



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Lucas Cranach the Elder and workshop, detail from **Altarpiece of the Virgin**, c.1515/20. Kade, Pfarrkirche.



and 1513, is not known (figs 215, 216). There are also carved and painted retables in Kade near Genthin (c.1515/20, fig. 217)²¹, in Grimma (c.1519)²² and in Klieben near Dessau²³ as well as the *Altarpiece of the Virgin* in the cathedral in Brandenburg (1518),²⁴ they are clearly by different woodcarvers and a comparative investigation would be very desirable.²⁵

Although carved altarpieces placed very particular demands on the collaboration between carpenters, woodcarvers and painters, they offered more opportunities in terms of commission and sales outside the court. This is confirmed by the observation that almost all surviving retables produced in Saxony between 1490 and 1525 are carved, whereas only about five per cent are fully painted winged altarpieces.²⁶ It is not known for certain whether Cranach co-operated with Ciprian Schnitzer, Claus Heffner, Adolf Schnitzer²⁷ or Hans Bildenschnitzer, all of whom were woodcarvers employed at the court.²⁸ No inference with regard to the painter's workshop can be drawn from the invoices. It is very likely that Cranach even employed a woodcarver as subcontractor or collaborator in his own workshop. In 1513, for example, Cranach received the payment for the *Neustadt Altarpiece* (app. II, 53, 54) and in 1520 for 'a large-scale carving of a man' (*groß geschniczt mannes bildt*, app. II, 89). In the 1530s, Meister Oswald Schnitzer, mentioned above, worked in Cranach's studio at No.1 Schloßstraße (app. II, 204, 229, 230). Whilst there he produced, amongst other items, two larger-than-life foot soldiers in stone for the spiral

staircase tower at Schloss Hartenfels (app. II, 229, fig. 204). Cranach sent them by ship from Wittenberg to Torgau where they were reworked by Oswald, who presumably also painted them. The various invoices are impressive indications of Cranach's collaboration with other craftsmen (app. II, 230, 232, 233). There are payments to a goldsmith for two chains, a carpenter for two pikes, another woodworker (*zimmermann*) who had 'hewn' the pikes 'from the roughest of wood' (*auß dem grobsten gehawen*) and also to a lamp maker and another smith for small items (app. II, 233). Furthermore, in 1545, Martin Luther tells of a wooden statue of Prince Johann Friedrich to be finished by Cranach;²⁹ as late as 1560, a woodcarver and joiner from Salzburg, Wolfgang Schreckenfuchs, was employed in the Cranach workshop in Wittenberg.³⁰

Zubereiter

In 1507, Albrecht Dürer passed on the wooden panels for the *Heller Altarpiece* to a *zubereiter*, who applied the ground and carried out the gilding.³¹ Eleven years later Cranach noted on a piece of paper: '1 floren for the *Lucrecia* I made for the small panel from the carpenter and the *zubereiter* and to be gilded' (*1 fl vor die Lucrecia, die ich gemacht hab, vor das tefelein vom carpenter und vom zubereiter und zu vor gulden*, app. II, 77). The *zubereiter* would have been responsible for applying the ground, smoothing it and carrying out gilding work, if so required. Evidently in Cranach's studio, work such as this was not entrusted to just any apprentice or journeyman painters but to a specialist. The *bereiter* or *zubereiter* is seldom mentioned in surviving guild regulations. According to the Prague Ordinance of 1490 each master had at his disposal one painter, one woodcarver and one *zubereiter*.³² The sculptor Bernd Notke employed three [*zu*]*bereiter* between the years 1471/72.³³ In Antwerp, where endeavours to rationalise work by division of labour were particularly marked, *zubereiter* could progress as far as becoming master craftsmen.³⁴ In Strasbourg, there was a dispute about a painter who was only allowed to work as a gilder. In the vehement argument that ensued, the angry painters described the gilder as a common painter whereas the sculptors talked disparagingly about the painters' dispute with the *zubereiter*.³⁵ And when it came to the painting and gilding of an altarpiece for the Maagdedaele Monastery (1525, von den Bergh), we learn that a painter (*faßmaler*) was required to paint the carving and to prepare the shutters so that another painter could complete the paintings.³⁶ This indicates that the work of the *zubereiter* could consist not just of applying ground and gilding but also decorative painting. Ambrosius Silberbarth and Franz Zubereiter are the only *zubereiter* from Cranach's workshop known to us by name. They are mentioned in the building accounts for the castle at Torgau (cf. app. II). Silberbarth's name occurs at

one time among those of Cranach's assistants, later he charges not only for his own paint and gold but also independently for his work. He gilded bosses and a dragon's head, decorated gutters, chests, capitals, pillars and picture frames, worked on the ceiling in the *frauenzimmer* as well as in the adjoining rooms. Instead, no such details of Franz Zubereiter's contributions are given in the documents that have been examined. He was engaged almost continuously on work in Schloss Hartenfels between August 1535 and October 1536 (cf. app. II).

There is nothing in the sources to substantiate the assertions made by Michaelson,³⁷ Emmendörffer³⁸ and Erichsen³⁹ that the *zubereiter* were in fact apprentices or specialist colour makers. Also, the hypothesis frequently drawn upon, that Franz Zubereiter is none other than the painter Franz Timmermann, loses its basis, not only because they worked in different areas, but because of the fact that as early as 1535 Franz Zubereiter was being paid half a *gulden* a week (app. II, 194) while the Hamburg City Council did not send Franz Timmermann to Wittenberg to be trained in Cranach's workshop before 1538.⁴⁰ The name Franz was common in the workshop. There is, for instance, a painter named Franz Maler in the invoices of 1514 and 1527 (app. II, 63, 154). In 1536, there is another mention of a Franz Maler who, as a result of a different payment, cannot be the same person as Franz Zubereiter (app. II, 206). Then in 1542, Cranach pays yet another painter, Franz Schiller from Leipzig (app. II, 250). With this information in mind, doubt must also be shed on the work undertaken by Ost⁴¹ and Emmendörffer⁴² leading to the attribution of the panel *Christ Blessing the Children* (1543) to the *zubereiter* Ambrosius Silberbarth, based on the monogram AS alone.

It may be that Cranach applied coloured grounds to his early surviving work himself. The inferior quality of the white grounds on the panels from the early years in Wittenberg raises the possibility that Cranach left this job to a less qualified assistant. However, from 1518 at the latest, production of his panel paintings was based on a well-organised division of labour widely practised in the sixteenth century between carpenters, *zubereiter* and painters (app. II, 77). The *zubereiter* was probably also responsible for applying preparatory layers to large canvases.⁴³ That experienced specialists did this work is supported by the fact that separation between the wooden supports and ground layers can rarely be observed today.

Apprentices, helpers and journeymen painters

The picture that we have today of painters working in the Cranach workshop and the methods used to train them is still very fragmented. Although individual names have been established and works similar in individual style

have been grouped together since the nineteenth century, and although Schade collated pieces of evidence from the archives in the 1970s, still almost no links have been established between the bulk of the surviving paintings and about two dozen workshop collaborators known by name.⁴⁴ In more than four decades of workshop activity there must have been many more painters employed, and Schade is surely right to talk of ‘scores of young men’ coming ‘to do their apprenticeship in Wittenberg’.⁴⁵ There was a hierarchy of assistants and Schade distinguishes between apprentices (*Lehrjungen*) and journey-men (*gesellen*). The documents also mention hired hands (*lohnknaben*) and helpers (*knechte*).⁴⁶

The first mention of a young apprentice occurs in the summer of 1506; like his master, Cranach, he received court dress (app. II, 13). In the summer of 1509, there were two boys working as Cranach’s apprentices and there is evidence of a third pupil in 1512.⁴⁷ Usually there were two or three boys undertaking their apprenticeship in the Wittenberg workshop, which after a short trial period, normally lasted three years. Hamburg City Council sent Franz Timmermann to Wittenberg in 1538 and until 1541 regularly sent him payment in the form of money and goods.⁴⁸ Acting on behalf of his absent father, Lucas Cranach the Younger also sent confirmation to Duke Albrecht of Prussia in January 1553 that a Heinrich Königswieser had been taken on as painting apprentice for a period of three years, ‘with the willing intention of teaching him portraiture and drawing as well as the preparation of paints and whatever else is necessary to this art’ (app. II, 315, 318). The duke offered to pay Cranach for the apprenticeship premium that was needed to provide the training and material as well as the pupil’s board and lodging. Königswieser himself, by his own admission, received neither premium nor clothing and asked the duke for financial support (app. II, 319). Apprentices Bartel and Alexander occasionally received seven or eight *groschen* a week during the building of the castle at Torgau along with the comment ‘have done as much work as a journeyman’ (*hat als vil gethan als ein gesel*); others were not so lucky (app. II, 218, 227).

Little is known about the teaching the pupils received at the time. They probably began by drawing, and they would also learn how to prepare the paint and eventually how to apply it.⁴⁹ One can certainly assume that pupils would have learned how to mix the dry pigments and binding media on the grinding stone, but it cannot be taken for granted that this would have been one of their daily tasks.⁵⁰ In one invoice, Cranach comments that a helper (*knecht*) ground paint for him (app. II, 272). The apprentices’ training very soon included painting work. After Lucas Cranach the Younger had officially taken on Heinrich Königswieser as an apprentice in January 1553, the boy sent the

duke his first little canvas (*tuchlin*) as early as April of the same year, proof of his newly acquired skills, accompanied by a request for further financial support (app. II, 319). As the costs for the apprenticeship were usually borne by the parents or patrons, it was normal for them to be sent items done by the apprentice. In a letter dated 4 April 1521, Duke Johann Friedrich requests that he be sent a panel by his painter so that he could see ‘all the good things he has been learning’ (app. II, 99), and on 24 April 1545, Cranach sent a *Virgin* to the court chamberlain, Hans von Ponickau, with the comment ‘done by your painter’ (app. II, 269). He must have been satisfied with the progress the boy had made as in the letter he also remarks that he, Cranach, ‘had not helped in any way. The boy did it on his own so you can see how much progress he has made’ (*in gar nichts daran geholfen, er hats allein gemacht, da seht ir wol wie er sich pesert*). Finally, Cranach requests payment of the bills that he had enclosed (app. II, 269). This letter provides further proof that Cranach occasionally involved himself in the work of his apprentices, putting it right, if necessary.

To begin with, the apprentices had to practise by copying the models and panels that would have been in the workshop before being able to work more freely, producing variations of the reference material. Works such as *Lucretia*, bearing the monogram *HD* and dated 1514 (fig. 219),⁵¹ or a version of *Salome*⁵² from the year 1520 offer proof of this approach. Both are copies of Lucas Cranach the Elder’s surviving works (fig. 218). It is, of course, highly improbable that these works by the apprentices would have received the workshop’s quality signature, the winged serpent. On the other hand, it is not unlikely that the apprentices would have signed their first works with their own monogram. If the paintings were sent out as proof of artistic progress with a request for financial assistance, then the signature would have been helpful. The patron could hardly fail to recognise it as the work of the person he was supporting. So it was that in 1521, Duke Johann wrote to Elector Friedrich III with the request that his painter’s panel, which was otherwise not described in any further detail, be picked out from many others (app. II, 99). It is perfectly possible that Cranach required that the pictures be signed with a monogram in order to avoid confusion with any unsigned so-called ‘Cranach product’. However, research has until now always reached the collective conclusion that panels signed with a monogram indicate the latest point at which an apprentice left Cranach’s workshop. For instance, the previously mentioned *Lucretia* of 1514 (fig. 219) was used to date the end of Hans Döring’s activity in the Cranach workshop.⁵³ On the other hand, technical examination of this panel now indicates that this panel may well have been produced in Wittenberg.⁵⁴



218
Lucas Cranach the Elder,
Lucretia, c. 1510/13. Panel,
60 × 47 cm. Private collection.



219 >
Hans Döring, **Lucretia**,
1514. Panel, 40.9 × 33.1 cm.
Wiesbaden, Museum.

By the same token, the two paintings bearing the monogram *FT* and dating from 1534 and 1536 have generated uncertainty. Emmendörffer concludes that Franz Timmermann must have been a pupil of Cranach's even before receiving his scholarship from Hamburg City Council.⁵⁵ If it is assumed that these works were really painted by Franz Timmermann, then it is also possible that in 1538 or later he made copies of existing panels, including details of the year they were painted, in the Cranach workshop. This practice is known to have existed at least from a portrait of Martin Luther (FR 314C). Despite bearing the serpent signature and the date 1533, it can only have been painted, according to the results of dendrochronological investigation, from 1536 onwards at the earliest.⁵⁶ An examination of the paintings in question could prove illuminating.

The principle of training and workshop practice presupposed each other. The young apprentices were certainly fully aware of the challenge and desirability of getting away from mere copying and learning the workshop method. On completion of their apprenticeship, only the most skilled painters might be permitted to produce paintings that received the serpent signature as an indication of quality. Obviously, Cranach could not take on all apprentices as journeymen. To what extent the apprentices were obliged to undertake years

of travel upon completion of their training is not known, but many must have gone off looking for work with another master in another town at the end of their training.⁵⁷ Some returned to their patrons. Hamburg City Council refused to allow Franz Timmermann to settle in any other city on completion of his apprenticeship.⁵⁸ Heinrich Königswieser worked for many years at the court of Duke Albrecht of Prussia.⁵⁹

It is unclear whether a painters' apprenticeship involved any further degree of specialisation. Were there specialists for book illustration, panel painting, large-scale canvases or decorative murals?⁶⁰ Did the same hands which illustrated the Spalatin Chronicle carry out the menial task of house painting at the castle at Torgau? The answers to these questions would allow more detailed conclusions to be drawn about the size of the Wittenberg workshop.

From 1510 onwards, the payment orders refer first to four, then five, then six journeymen, in 1511 there are eight and in 1512 nine of them.⁶¹ In the course of the preparations for the marriage of the subsequent Elector Johann to Margarete of Anhalt, which took place on 13 November 1513, Cranach employed as many as ten journeymen (app. II, 56). Twenty-two years later, when he was working on the decoration work for the castle at Torgau (fig. 220), he had ten assistants working alongside him, including both his sons and two apprentices (app. II, 194). Whilst the payment orders usually refer to journeymen, Cranach himself differentiates between *gesellen* (journeymen) and *knechte* (helpers) in two documents from the years 1544/45 (app. II, 266, 272). The helpers gilded window mouldings, set stars in a window, worked on both sides of an oriel, and ground paint for their master. Was Cranach making a conscious distinction between *knechte* and *gesellen* in this instance? The statute of the Antwerp St Lucas guild of 1442 distinguished between *meestern*, *gezellen*, *knapen* and *knechte*. A master could employ *knapen* and *knechte* for a commission of limited duration.⁶² In Strasbourg, the ordinance of the guild of painters of 1516 decreed that anyone who had not completed the work to qualify as a master craftsman should do so forthwith, otherwise they would only be permitted to have one *gesellen* (journeyman) and one *knecht* (helper) to assist them.⁶³

As a result of a new transcription, the records of accounts in connection with the building of the castle at Torgau reveal differences in the type of payment made (cf. app. II), indicating that there was a clear hierarchy when it came to wages. In 1545, Lucas Cranach the Elder, as a master craftsman, received three *gulden* plus food and travel costs for one week's work (app. II, 272). His sons Lucas and Hans received half that amount, that is, one-and-a-half *gulden* a week (1535-37, app. II, 194, 205, 218). They were thus to be regarded as master craftsmen subordinate to their father since the court chamberlain paid

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Lucas Cranach the Elder and workshop, **A Stag Hunt**, 1544. Vienna, Kunsthistorisches Museum, Gemäldegalerie. Detail showing Schloss Hartenfels at Torgau.



the same sum as they received to master painter Caspar von Grimma (app. II, 206). Among the collaborators described as journeymen, only Hans Abel received a wage of one *gulden* a week (app. II, 194) and master carver Oswald, who was employed in Cranach's workshop, received the same amount (app. II, 219). Hans, Jobst and Paulus Steter, Lucas Mercker, Benediktus, Marx, Pael Ryß, Hans Rentz, Jacob Abel and others, amongst them also Franz Zubereiter and Ambrosius Silberbarth, were paid on average just half a *gulden* a week (app. II, 194, 205, 227 et al.).⁶⁴ In 1545, six others described by Cranach as *knechte* (helpers) also received half a *gulden* in wages (app. II, 272). The varying levels of payment made, as well as the diverse designations given to his collaborators, make it clear that Cranach realised large-scale projects using painters with different qualifications.

During work on the Johann Friedrich Wing, Cranach only came to Torgau for brief periods (app. II, 194, 223, 224 et al.). For many months, he left the day-to-day supervision of the painters to his two sons. Hans worked on the site almost without a break from 15 August 1535 to 14 October 1536. The lower-paid assistants took turns at irregular intervals. Over a period of about three years, the records of payments refer to 11 different names; of these people, only four or five were employed there at the same time.⁶⁵ This leads to the assumption that for simpler tasks Cranach engaged painters on a short-term basis and charged a smaller wage for them than for his regular qualified journeymen. Three of the so-called *lohnknaben* (hired hands) are in fact also mentioned in an order for payment in 1544 (app. II, 265); a few weeks later, the court chamberlain paid out the same amount, describing the assistants as *knechte* (app. II, 267).⁶⁶

It has been proposed that the number of painters employed in Cranach's workshop remained rather stable. Grimm hypothesises, that there were 'for many years ten or eleven fully trained painters...whose work we ought to be able to detect as far as the surface of the paintings'.⁶⁷ This is not supported by this analysis of the documents; in fact, it is clear that as court painter, Cranach ran not only a large but a very flexible workshop, often active in more than one place at time and with a variable number of employees.

While helpers or jobbing journeymen were carrying out decorative work (under supervision) in Torgau between 1535 and 1538, numerous panel and canvas paintings were arriving from Wittenberg. In other words, the master and other qualified painters were producing the items for furnishing at No. 1 Schloßstraße. This means that it is virtually impossible to link the jobbing journeymen by name to the paintings even if it were possible to establish that one or other of them painted on wooden panels or canvas or assisted with the work on them. According to the tax register of 1542, Cranach employed just two master painters, two apothecaries, a taverner and three maids.⁶⁸ At times of highest productivity, he employed both his sons, several qualified journeymen, as many as six workshop assistants and three apprentices plus carpenters, woodcarvers and *zubereiter*. Workshops of this size are by no means unique. As early as 1388, Jean Baumez had 19 assistants working for him in his Paris studio and the practice of realising large-scale projects using jobbing painters was widespread. For instance, in 1496 a master craftsman in Ulm could engage as many jobbing journeymen as he wanted.⁶⁹

The records for payment reveal little information about the journeymen who were qualified to undertake panel painting (and were consequently more highly paid), or about how long they tended to remain in the workshop. Emmendörffer has dealt at length with some of these painters, showing how they developed their skills. Therefore, they will not be discussed here in any further detail.⁷⁰ It is likely that Cranach also occasionally engaged qualified painters who had been trained in other workshops. One of these may well have been Christof Maler von München as early as 1505 (app. II, 5). In 1512/13, Cranach's brother, Matthes, was involved in the production of the large altarpiece in Neustadt/Orla (app. II, 54). It is also possible that Heinrich Vogtherr the Elder, who was born in Dillingen on the Danube in 1490 and who did his apprenticeship in Augsburg, also worked for a short time in the court painter's workshop. There is evidence that he was in Leipzig between 1514 and 1517 and signed the painting *Martyrdom of St Erasmus* with the coat of arms of Cardinal Albrecht of Brandenburg in 1516.⁷¹ It is in this painting that some significant motifs echoing the *Slaughter of the Innocents* (c.1515, FR 70) from Cranach's workshop recur; these are discussed by Emmendörffer.⁷² Technical findings can now go further and suggest that the panel in question was also produced in the Wittenberg workshop. In the upper and lower quarter of the painting, two strips of tow cover the wood, a practice which is found on numerous works produced in the Wittenberg workshop from 1514/15 onwards.⁷³ The painting could thus also be the first evidence of direct contact between Cardinal Albrecht of Brandenburg and Lucas Cranach the Elder.⁷⁴

Although Cranach had a large and flexible workshop at his disposal, he was not responsible for every picture commissioned by the Saxon court. We know of works by Dürer and Burgkmair commissioned by Elector Friedrich III the Wise (app. II, 16) and of other painters who were employed in the electorate residences (cf. app. II). Some of those known by name are Jacopo de Barbari (1505), Paul Maler (1508), Meister Hansen, the court painter (1509?, 1522?, 1527),⁷⁵ a painter of Mühldorf (1513),⁷⁶ Franz Maler of Torgau (1514, 1527, 1536), Schlett Maler (1519), Steffan Schmeltzer, a painter from Wittenberg (1511, 1536/38),⁷⁷ Eustachius Maler of Torgau (1527, 1530/32, 1536/37), Meister Caspar of Grimma (1536), Meister Bastian Maler (1536/38) and Franz Schiller from Leipzig (1542).⁷⁸ Simple jobs such as whitewashing walls were the responsibility of various so-called *tüncher* (app. II, 61, 63). One or the other of these may have been a temporary collaborator or a subcontractor employed by Cranach. Occasionally, the office of the court painter required that other painters be commissioned, their work supervised and subsequent payment arranged. Thus in 1546 Cranach ordered 11 painted canvases from Hans Krell in Leipzig on behalf of the elector (app. II, 279) and in 1524 Hansen Jheger from Aldenburg altered a ceiling painting in the castle at Colditz ‘according to instructions from Lucas the painter’ (*nach Lucas Malers angaben*, app. II, 125).

As court painter, Cranach managed with remarkable adroitness to maintain a high standard of quality by employing several regular collaborators. In addition, he showed himself capable of responding to the volume of orders at any one time by taking on jobbing journeymen or other helpers who were employed on a temporary basis, and by working together with other painters commissioned by the court. In this way, Cranach coordinated a flexible workshop structure capable of functioning simultaneously in very different areas. Investigation shows that there was a division of labour between the various paintings commissioned, the decoration of architectural elements and simple jobs like applying whitewash. The more taxing of these jobs were mostly reserved for Cranach’s master journeymen. Jobbing journeymen and whitewashers were entrusted with simpler tasks such as decorative painting or coating walls. So far it has only been possible to piece together a sketch of the complex nature of the circumstances surrounding the allocation of jobs and terms of employment in the workshop. It becomes apparent, however, that Cranach developed a very efficient and flexible system to respond to a variety of demands by the court and other commissioners. The work of the journeymen and question of division of labour will be dealt with in the following section.



Artistic co-operation and exchange in panel painting

'Art is not made by one artist but by several. It is to a great degree the product of their exchange of ideas with one another.'

Max Ernst

221 <

Lucas Cranach the Elder and workshop, **III-matched Lovers**, c.1530 Panel, 86.8 × 58.6 cm. Nuremberg, Germanisches Nationalmuseum.

222

Lucas Cranach the Elder and workshop, **III-matched Lovers**, c.1530. Panel, 38.8 × 25.7 cm. Düsseldorf, museum kunst palast.

223 <

Lucas Cranach the Elder and workshop, **III-matched Lovers**, 1531. Panel, approximately 51 × 36 cm. Vienna, Gemäldegalerie der Akademie der bildenden Künste.

224

Lucas Cranach the Elder and workshop, **III-matched Lovers**, c.1530. Panel, 19.5 × 14.5 cm. Vienna, Kunsthistorisches Museum.

Serial production and division of labour

Separating the work of Lucas Cranach the Elder and his son Lucas Cranach the Younger was a question that concerned even their contemporaries. Emperor Charles V is said to have confronted the master about it.¹ In the nineteenth century, the view came to be widely held that numerous works were produced by workshop members, resulting in a continuous reduction in the number of paintings attributed to Cranach the Elder himself. Thus the division of labour between the court painter and his journeymen has become the primary topic of research in more recent decades (see p. 36).²

Schade,³ Koepplin⁴ and Erichsen⁵ all agreed that the division of labour in the workshop was less horizontal than vertical, that is to say, specialists in particular motifs (heads, robes, landscapes) did not collaborate on one panel and assistants were entrusted with the task of painting individual sides of shutters or even complete commissions – possibly following the underdrawing by the master. For instance, in Koepplin's view, Cranach left both the design and the painting of the *Neustadt Altarpiece* (1511-13) to his pupils. Grimm, on the other hand, detects a whole range of successive stages and concludes that the master and journeymen were involved both in individual paintings as well as in distinct passages of the paintings. He pieces together a clear sequence in the way a picture was worked up with a division of tasks in terms of responsibility for individual stages of the picture with the involvement of many hands being the norm.⁶

The problem is how, with paintings from one workshop, to distinguish objectively between the various hands. Since the pupils' activity was an integral part of the workshop production, the judgement has to rely primarily on features of style and associated marks of quality. In material, as well as in technique, the works or parts of them do not differ significantly.⁷ Technical investigations expand the possibilities of stylistic analysis with both infrared reflectograms and X-radiographs rendering new assessment criteria. Microscopic surface examination only rarely contributes to clarification of the progression of work or to a delineation of thoughts on the division of labour. The aim in this section is to summarise the few findings from technical investigations that allow conclusions to be drawn about different forms of delegation. It is suggested here that the division of labour in the Cranach workshop takes

various forms, for example, between individual paintings and parts of polyptychs, between the different stages of designing and completing a painting (underdrawing, undermodelling and finishing) and between different passages of a painting. If features of style and quality are uniform and are distinguishable from other paintings, then these may be indicators of the fact that a painting was executed almost singlehandedly by the master himself, or by one of his assistants. The *Ten Commandments* (1516, fig. 64), the *Martyrdom of St Erasmus* (1516, FR 70), the *Virgin and Child with Saints* (1516, fig. 22) and the Darmstadt *Virgin and Child* (c.1516/18) can be regarded as more or less contemporaneous examples of this kind of division of labour. The Darmstadt Madonna differs from works by Lucas Cranach the Elder and others closely associated with him not only in the style of the underdrawing⁸ and the style of painting, but also in the way the paint has been applied. In the face, light and shade have been juxtaposed with exceptional contrast in the course of the first application of paint and only subsequently harmonised with an opaque medium tone. Up to now, the same technique of modelling flesh tones has only been found on the more or less contemporaneous *Virgin and Child with St Anne* (c.1515/16, see p. 207). Generally, the works of Cranach's assistants can rarely be linked with one another; a homogeneous style and technique is not be expected from painters who were skilled in adapting their style to that of the workshop employing them, or who might still have been learning, or who were trained in another studio.

Differing features in style and quality reveal that, when it came to the painting of larger altarpieces, there was a division of labour between the centre panel and the shutters, or between the various permutations of side on display. Less competent assistants were usually delegated the side, which was on display every day.⁹ For example, the painting on the versos of the centre panel, standing wings and the predella box of the *Neustadt Altarpiece* differs in both style and technique (fig. p. 2, figs 188, 215). The individual painters cannot be recognised from the underdrawings of the retables examined, so it may be concluded that there was a division of labour at various stages in the production process. Again and again, different people were responsible for the underdrawing and the working up. For instance, the painter of the two panels depicting Adam and Eve (c.1512) follows the outlines that have originally been drawn confidently in great flourishes rather clumsily and with obviously less understanding of form.

There is no doubt that the division of labour between different passages of a picture takes many forms. Close visual inspection of the alternate overlapping of individual areas of colour did not enable confirmation of the clear sequence of work, as observed by Grimm, who has suggested that passages

of dark colours were first blocked in, followed by a modelling of light and shadow and subsequently finely drawn details (see pp. 207-211).¹⁰ His hypothesis about the division of labour at these different stages of the painting process thus loses its validity. The possibility that a similar form of delegation did exist cannot, however, be discounted. A fixed working sequence allowed many opportunities for collaboration. It is perfectly possible that two different colleagues took on, for example, the *grisaille*-like undermodelling and the working up in colour. However, the alternate overlapping of various areas of colour and the relatively even 'growth' of different passages of the picture makes it very unlikely that there were specialists in the Cranach workshop concentrating solely on painting landscapes or solely on figures, taking turns as though on a rotating conveyor belt.

For example, the patterns of the gold brocade robes on the triptych with the *Resurrection* (c.1509) were drawn by an experienced hand at a very early stage. The subsequent modelling of the folds of the robes is hesitant, almost clumsy. Is this an instance where the master did not trust the assistant with the drawing of the brocade pattern, preferring to carry it out himself? By comparison with other areas of the picture, this pattern required a particularly steady hand with corrections well nigh impossible. Woermann detected a discrepancy in quality between the heads and the clothes in the *Duke Heinrich the Devout of Saxony and the Duchess Katharina of Mecklenburg* (1514, figs 68, 241),¹¹ and he suspected that journeymen had helped with the painting of the magnificent robes. In this instance it is quite evident that, when compared to other examples, the quality of the drawing of the pattern of the brocade is not up to the usual standard (figs 225, 226). On examination, similar differences between heads, hands and clothing become apparent in other portrait paintings.¹² Thus, division of labour could have come about as a result of the different degrees of difficulty of the commission, the significance of individual areas within the painting as a whole, and time constraints and costs in carrying out parts of the painting. The head of St Catherine on the *Prague Altarpiece* (c.1520) is modelled in noticeably thick layers of paint and the text in the open book laboriously written. Most of the letters in black have been subsequently outlined in white paint, further delineating shape (fig. 227). By comparison, the writing in the books of the other saints reveals the hand of a specialist (fig. 228). The letters here are evenly shaped; there are no corrections in white paint. It is difficult to attribute these figures to the master or to one of his journeymen. It is conceivable that, better at painting portraits, this painter did not possess the skill of a specialist when it came to lettering. The *Elector Johann the Steadfast* (1526, FR 311B) might provide further confirmation of a division of labour between painting and lettering: although the text, the date



225
Detail from **Duchess Katharina, Spouse of Duke Heinrich the Devout of Saxony**, 1514 (fig. 68).



226 >
Detail from **Duchess Katharina, Spouse of Duke Heinrich the Devout of Saxony**, 1514 (fig. 68).

and the signature appear to the viewer to have been carried out in the same green paint, under the microscope it is possible to differentiate between the mixtures of paint and the time of application. It was only after the portrait had been completed with the serpent signature and date as well as a final coating (which survives in parts) that the lettering, which is undoubtedly authentic, was added at the upper left. Another example of this division of labour, which depended on specialisation, is evident in the lettering, which was written or printed on paper and then glued to the panel (see p. 126).

Later corrections or additions do not demonstrate such a division of labour. The headdress of St Margaret on the *Altarpiece with the Martyrdom of St Catherine* (1506) has been reworked at an advanced stage of painting (figs 253, 256). The hand of the person doing the reworking reveals itself to be far superior in



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Lucas Cranach the Elder
and workshop, detail from
**Altarpiece of the Virgin
Glorified**, c.1520. Prague,
Collections of the Prague Castle.

228 >

Detail from **Altarpiece of
the Virgin Glorified**, c.1520.
Prague, Collections of the
Prague Castle.

style and quality to that of the first person, which leads us to suspect it to be the work of the master. Amendments in flesh tone, drawing of hair and landscape details are common.¹³ Three large animals have been added at a later stage to the London *Adam and Eve* (1526, fig. 178). Whether it was the hand of the same or a second painter who re-worked the composition is unresolved (see p. 213). Such corrective interventions are more rarely detected in X-radiographs of later works.

The examples quoted suggest that there were very different forms of division of labour in Lucas Cranach's workshop. They vary in their dependence on different factors such as qualifications and time constraints, the task, format, use of patterns and models and not least, the importance of the commissioner. What is not discernible is a co-operative painting process whereby the various assistants are assigned a clearly defined individual task in the manner of assembly-line production.

The winged serpent is the trademark and 'stamp of quality' of paintings produced in the workshop. Its use confirmed that the work in question conformed to the master's artistic concepts and standards of quality. The division of labour in the Cranach workshop was such that different collaborators were authorised to sign and date a painting. Comparison of contemporaneous serpent signatures (cf. figs 229-240) leaves no room for doubt that different hands were entitled to apply the trademark. There are differences not only in the shape of the serpents but also in the characteristics of handwriting in the numbers of the various dates.¹⁴ As post-dating was also apparently carried out, this restricts comparisons,¹⁵ so that it has not been possible to identify the painters in question more clearly. However, apart from Lucas Cranach the Elder, his son Lucas Cranach the Younger was probably one of them for many years.

229

Detail from **Duchess Katharina, Spouse of the Duke Heinrich the Devout of Saxony**, 1514 (fig. 68).



230 >

Detail from **Portrait of a Man, Perhaps a Mayor of Weißenfels**, 1515 (fig. 206).



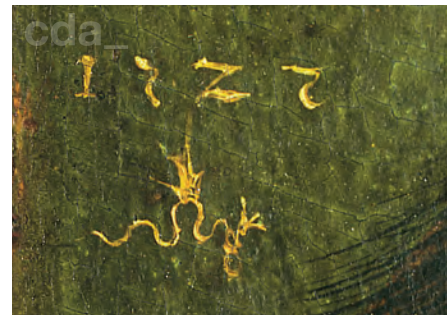
231

Lucas Cranach the Elder, detail from **St Leopold of Austria**, 1515. Vienna, Kunsthistorisches Museum, Gemäldegalerie.



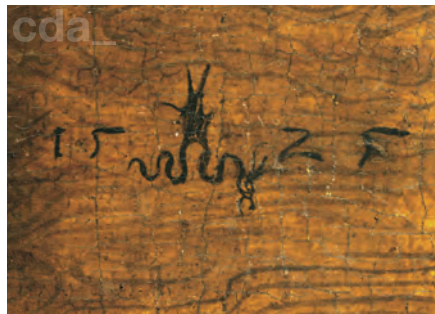
232 >

Lucas Cranach the Elder and workshop, detail from **Electeur Friedrich III the Wise**, 1525. Darmstadt, Hessisches Landesmuseum.



233

Lucas Cranach the Elder and workshop, detail from **Cardinal Albrecht of Brandenburg as St Jerome**, 1525. Darmstadt, Hessisches Landesmuseum.



234 >

Lucas Cranach the Elder and workshop, detail from **St Mary Magdalene**, 1525. Cologne, Wallraf-Richartz-Museum – Fondation Corbout.

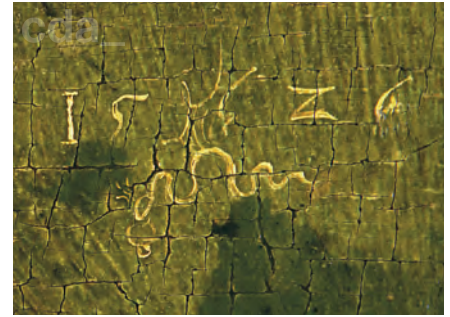
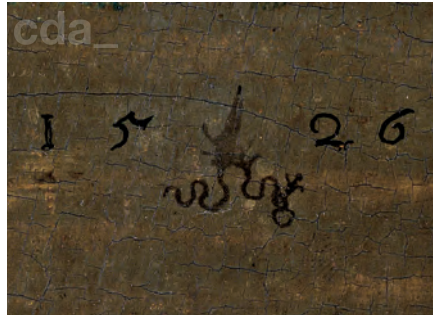


Cranach's personal involvement

Closely connected to the question of the division of labour within the workshop is the question of the extent of the master's personal contribution. About a century ago, researchers found it difficult to link the early works with Cranach.¹⁶ Currently, the fact that they were painted by the master himself has been undisputed.¹⁷ However, of the works produced after 1505, recent research attributes only the most competent to Cranach.¹⁸ In this context it is more difficult to determine his activity than the study of *craquelure* by Schuchardt¹⁹ suggests: if the master painter's workmanship had really been

235

Lucas Cranach the Elder and workshop, detail from **Portrait of a Young Woman**, 1526. St. Petersburg, State Hermitage Museum.



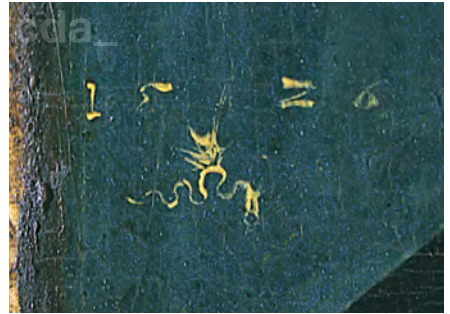
236 >

Lucas Cranach the Elder and workshop, detail from **Electeur Johann the Steadfast**, 1526. Otterlo, Stichting Kröller-Müller Museum.



237

Detail from **Adam and Eve**, 1526 (fig. 178).



238 >

Lucas Cranach the Elder and workshop, detail from **Princess Sibylle of Cleves**, 1526. Weimar, Kunstsammlungen.



239

Lucas Cranach the Elder and workshop, detail from **Picture of a Nude Boy**, 1526. Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister.



240 >

Detail from **Martin Luther**, 1526. Eisenach, Wartburg-Stiftung (fig. 57).

discernible from the *craquelure*, this would have closed the issue. At present, Grimm's estimate that 90 to 95 per cent of the *oeuvre* was painted by journeymen²⁰ contrasts with a written source from 1550. In this, Lucas Cranach the Younger admits in a letter to Duke Johann Albrecht I that, in the absence of his father, he did not feel capable of realising a commission on his own.²¹ Therefore, according to this, in 1550 composing the design was still mainly the responsibility of the father.





242

Detail from **Count Palatine Philipp of the Rhine**, c.1520/22 (fig. 46).

243 >

Detail from **Portrait of a Man, Perhaps a Mayor of Weißenfels**, 1515 (fig. 206).

244 >>

Detail from **Portrait of a Man with a Fur Hat**, c.1510 (fig. 13).

241 (page 296)

Detail from **Duke Heinrich the Devout of Saxony**, 1514 (fig. 68).

Comparative analysis of a considerable number of infrared reflectograms led Sandner to the conclusion that Lucas Cranach the Elder drew the designs not only on paper, but also on the actual painting's support. There are only a very few paintings that have been examined in which his involvement in the underdrawing can be ruled out with any certainty.²² However, his workshop collaborators probably adopted not only Cranach's way of painting, but also his style of drawing. For this reason, Grimm attributes several examples of underdrawing to workshop collaborators,²³ but he does not establish the criteria for determining the master's contribution to preliminary drawings and the painting process with any certainty. The hypothesis that different types of underdrawing are preparatory for different painting procedures has barely been examined (see pp. 105-113).

Cranach certainly left the task of painting to his journeymen more often than the task of underdrawing. Based on the quality of the over 1000 surviving works, the highest standard paintings may be attributed to the master and the weak ones to the journeymen or apprentices. However, this leaves a large number of works occupying a less clearly definable middle ground in which stylistic analysis is of very limited assistance. Another problem in using quality as a criterion for establishing the hand of the master is that the possibility of a skilled and experienced journeyman achieving a high standard cannot be discounted. This was, after all, the essence of the assistant's ability. Conversely, the master himself might be obliged to adapt his own method when correcting a passage executed by a journeyman in order to avoid awkward or disturbing visual inconsistencies. Thus it could be that the head of the workshop occasionally had to make his contribution at a lower level of quality. Additionally, insufficient attention has been devoted to the different physical condition of the paintings.²⁴ Often the practice of attributing a painting is based on an incorrect assessment of its present appearance: for example the failure to recognise extensive overpaint. The ageing of the painting's structure and numerous interventions by restorers can complicate the interpretation of the image.

Since Cranach varied his techniques in the earliest paintings attributed to him, there is no consistent and definitive autograph style or quality that can be used as a hallmark of his work. In paintings clearly by his hand he differentiates individual figures by different methods of paint application and varying speed. In the panel depicting St Francis (c.1502/03, fig. 32), for example, different techniques of modelling have been used as an artistic device to differentiate between the saint and the resting fellow friar (see pp. 195-196). Later on, the works from his workshop are characterised by experimental variation in painting techniques. New stimuli and varied demands are reflected in differences in the speed and quality of elaboration. Examples here are the *Fourteen Helpers in Need* (c.1505/07, fig. 34) in Torgau, compared with the *Martyrdom of St Catherine* (c.1508, fig. 40) in Budapest or the *Last Judgement* (c.1520/25, figs 264, 266) in Berlin (see chapter II *Techniques of painting*). Grimm's attribution of the Torgau panel to a journeyman²⁵ is not borne out by technical examination. The 'assistant' responsible for this work would clearly have surpassed the court painter in artistic contrivance and speed of execution. To judge all the works of the first decade by the delicately elaborated *Martyrdom of St Catherine* (c.1508) means negating changes in quality as a result of specific commissions as well as his artistic rivalry with Dürer who painted the *Martyrdom of the Ten Thousand* for the Schlosskirche at Wittenberg in 1508.²⁶ If we take into account the fact that, when working on churches and castles, Cranach also considered the location of display and thus different elevations and distances for the viewer,²⁷ then the comparison of the paintings on their own without any knowledge of the proposed site for hanging or setting up is bound to fail. If a work was to be produced for display at a considerable height,²⁸ this could influence the style of painting, calling for effectiveness, homogeneity and also a simplification. As described above, there are numerous indications of the master and his journeymen taking turns in their involvement in a work. Assistants took part in works done by Cranach, and in turn, Cranach took part in works done by the assistants. Master and journeymen were active to differing degrees in various stages and areas of the picture. There is no doubt that the extent to which collaborators were involved in the overall work was enormous. Any attempt to delineate the work of Cranach alone clearly founders when it is understood that the whole aim of the workshop practice was to eliminate the possibility of separating hands as a result of differences in quality.

Patterns, replicas and variants

In line with the tradition of medieval workshop practice, Cranach possessed an extensive store of patterns and models, some his own, some of foreign

invention. Individual motifs and compositions were in use for decades. Schade,²⁹ Erichsen,³⁰ Tacke³¹ and Montout³² have thoroughly analysed this stock of material, of which fragments still survive. Their exhaustive findings were the starting point for these technical examinations, which have contributed primarily to the question of the portrait study and its use.

Presumably, Cranach noted compositions by other masters, observations of nature, architectural drawings and his own ideas for pictures in a portfolio or pattern book like the one that survives from his son Hans.³³ The few preserved drawings by the father are mainly practical preparations for paintings. In accordance with their designated use, a distinction should be made between *muster*,³⁴ or contract designs for commissioners, and the reference material, which would have been constantly consulted by the master and his assistants. For example, it is likely that Cranach himself drew the surviving scale models of altarpieces with folding shutters for Cardinal Albrecht of Brandenburg (fig. 18).³⁵ Copies produced by less well-versed assistants, variants or drawings, which were made after the painting had been completed, augmented the workshop's stock of materials³⁶ or they formed the assistants' own stocks. When carrying out the large commission for the *Stift* in Halle, the person drawing on the actual panels changed the compositions to such an extent that the preserved models cannot all be regarded as binding contract designs (*Visierungen*). The compositions of surviving paintings such as the *Lamentation* (c.1520/25)³⁷ differ so much from the workshop models that it is safe to assume that they were copied freehand.³⁸ Other drawings point to the assumption that technical devices were used to transfer the designs. Rectilinear grids are ruled on several surviving drawings;³⁹ these were traditionally used by the painters for purposes of transfer and proportional enlargement.⁴⁰ However, on Cranach's panel paintings, no evidence of such squared grids has been found. Possibly this method was applied for large-scale canvas paintings or tapestries.

The store of graphic patterns was likely augmented by workshop models drawn or painted in colour. Just a few studies of portraits (figs 209, 247)⁴¹ and game on paper (fig. 15)⁴² survive, along with paintings on parchment, such as the ideal portraits of *Christ and the Virgin* (c.1516/20, fig. 207).⁴³ Even among these items, a preparatory study for a picture cannot always be distinguished from a workshop copy intended for re-use later.⁴⁴ The assistants drew on the wealth of patterns in the collage-like montage and variation of *sujets*. Serving as reliable guides, patterns were a constant guarantee of quality and could be used again and again over many years. Some of these workshop patterns and

245

Lucas Cranach the Elder,
St Jerome, c.1515. Panel,
 67 × 57.5 cm. Mexico City, JAPS
 Collection.

246 >

Lucas Cranach the Elder and
 workshop, **St Jerome**, c.1515.
 Panel, 51.3 × 37.7 cm. Staatliche
 Museen zu Berlin, Preußischer
 Kulturbesitz, Gemäldegalerie.

models can be recognised in the paintings, drawn to scale, others reduced or enlarged, as a mirror image or with slight alterations.⁴⁵

In addition to individual details complete panel paintings were also kept in the workshop store. Production of workshop copies was part of the training for the apprentices as well as part of the journeymen's practice. A *Salome*, attributed to Hans Kemmer,⁴⁶ fits into this category. The painting is dated 1520 and bears the monogram *HK*. It is a copy of Cranach the Elder's panel from around 1510.⁴⁷ The likelihood that ten years later the work was still to be found in the workshop cannot be discounted. The various differences in form, proportion, colour and detail, particularly in the robe, however, suggest that the panel was produced not next to the original, but after a workshop model, which was less elaborated.

Koepplin⁴⁸ noted that, apart from portrait series, it was not workshop copies but rather variants of the same subject that were produced in the Wittenberg studios (cf. figs 221-224). Cranach seems to have encouraged small variations



each time a composition was repeated. However, there are also a number of surviving pairs of pictures among which are works by qualified journeymen (and occasionally a prototype from the master's hand) rather than simply copies by apprentices (cf. figs 245, 246). To name but a few of the surviving examples, there is the panel of *The Penance of St Jerome* in Bremen (c.1515) and in the Georg Schäfer Collection;⁴⁹ there is also a *St Jerome* in Mexico City (c.1515, fig. 245)⁵⁰ and a version in Berlin (fig. 246).⁵¹ Whereas the first pair hardly differ in measurement, the painting in Berlin is reduced in size⁵² and adapted to a standard format (C), leading to the assumption that it was transferred freehand from the signed version or another version. The surviving examples are evidence that prototypes and copies of various compositions were kept in the workshop as models to be copied again or varied, depending on the commission as well as the skill of the workshop assistants.⁵³

Portrait study and portrait painting

Various surviving portrait studies on paper and parchment⁵⁴ and several paintings worked up from these prototypes⁵⁵ reveal a practice that was usual in the Cranach workshop (figs 209, 247, 248). The preliminary head study was executed in the presence of the sitter, recording portrait-likeness and physiognomic detail in colour. It is often produced with wonderful freedom and great speed leaving the clothing only briefly sketched. The model was either traced or transferred freehand, dimensions were adjusted and clothing varied as appropriate. The portrait painting could then be worked up from such a study without further recourse to the sitter. The procedure appears to have been fairly flexible. Portrait studies allowed division of labour in the execution and could be re-used. A head study of Elector Friedrich III wearing a wire cap was apparently in use for several years. The same likeness can be found on the retables in Dessau (c.1510, fig. 249), in Copenhagen (c.1510/12, FR 36), in Neustadt/Orla (1511-13, fig. 250), in Coburg (c.1515, FR 64B), in Zwickau (c.1518, fig. 251), on a lost portrait painting (c.1515, FR 64) as well as on *The Virgin on a Crescent Moon* (c.1516, FR 83).⁵⁶ Here the workshop model was obviously adjusted to the scale on the paintings by freehand transfer.⁵⁷ Two portraits of Duke Ernst IV of Brunswick-Grubenhagen (c.1542/46), from which there is a head study in Reims,⁵⁸ also occur on panels in larger and smaller scale, respectively. Other paintings bear evidence that contours and volumes were transferred by tracing. For instance, in the case of Hans Luther (1527, figs 247, 248)⁵⁹ and Duke Ernst of Brunswick-Lüneburg (c.1537/40),⁶⁰ the portrait studies sketched in body colour on paper and the accompanying portrait paintings executed on wood are identical in size and facial details.

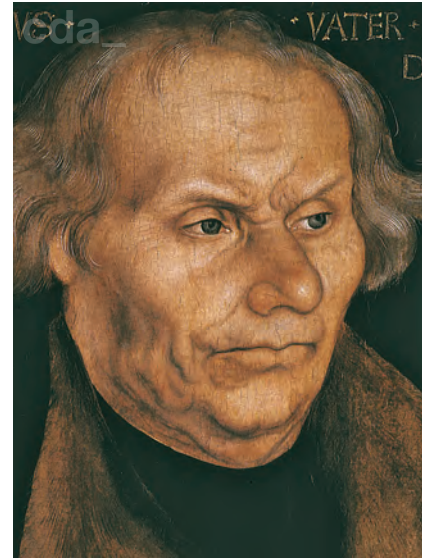
247

Lucas Cranach the Elder,
detail from **Portrait Study of
Hans Luther**, c.1527. Vienna,
Albertina.



248 >

Lucas Cranach the Elder and
workshop, detail from **Hans
Luther**, 1527. Eisenach,
Wartburg-Stiftung.



Furthermore, several portraits painted in series or variants appear to be based on the same head study.⁶¹ The use of standard formats would have facilitated repeated re-use of prototypes. Examples of such paintings include the portraits of Elector Johann the Steadfast in Weimar and Otterlo (c.1526)⁶² and the double portraits of the electors Friedrich III the Wise and Johann the Steadfast from the years 1532/33 (fig 102).

Fine, firm lines of underdrawing are characteristic of tracing using a stylus to transfer black pigment from the reverse of a study to the prepared panel (fig. 88).⁶³ The examined portrait studies⁶⁴ do not, however, give any indication that they were used directly as tracings; there are neither slightly incised lines to indicate the use of a stylus, nor pinpricks. The absence of this evidence⁶⁵ suggests that there must have been an intermediary tracing made from the original study in colour and that this tracing was subsequently blackened on the verso and used to transfer the portrait. Instructions for the manufacture and the use of 'oil-tempered transparent paper' are given in the Nuremberg *Kunstabuch*⁶⁶ and by Boltz von Ruffach: 'If you wish to make a copy of a drawn or painted item, lay paper over it in such a way that the outline and the hatching and everything shows through and you can make an accurate copy of the original piece.'⁶⁷

As yet there is no conclusive evidence for Lucas Cranach the Elder's use of pouncing⁶⁸, a technique that involved pricking the outlines of a drawing on paper, laying the pricked drawing on the ground layer and dusting charcoal



249

Detail from **Princes'****Altarpiece**, c.1510 (fig. 4).

250 >

Detail from **Neustadt****Altarpiece**, 1511-13 (fig. 215).

251 >>

Lucas Cranach the Elder and
workshop, detail from **Zwickau****Altarpiece**, c.1518. Zwickau,
St. Katharinenkirche.

or other pigment through the holes by means of a pounce bag.⁶⁹ The pricked cartoons depicting portraits of Martin Luther and Katharina von Bora belong to a later period,⁷⁰ and even the perforated drawing of *St Catherine* was apparently not conceived as a stencil for a painting.⁷¹ Examinations have revealed pinpricks following not only the outlining but also the flat overpainting of the architectural background. Since the frame drawn on the image is also pricked, it is unlikely that it was used for a painting (see p. 259). On the *Virgin and Child with Saints* (1516), the lines of underdrawing dispersed in dots might well be the beading effect of an aqueous medium on an oil-based isolating layer.⁷² Occasionally macro-infrared reflectograms also reveal traces left by a drawing stylus or tracing on the *imprimatura* that give an impression of individual dots.⁷³ In macrophotographs, these lines disperse in up to four dots per millimetre;⁷⁴ from a technical and practical point of view, there would be no point in producing such a stencil.

Excursus: 'A Portrait of a Young Lady' – painted by Lucas Cranach the Elder?⁷⁵

In the past, art historical research has tried to provide evidence for the assumption that Lucas Cranach the Elder painted leading personalities of the time on the *Altarpiece with the Martyrdom of St Catherine* from 1506. The identity of some figures has been the subject of controversy for many years.⁷⁶ *A Portrait of a Young Lady* (fig. 252) in the Germanisches Nationalmuseum in Nuremberg is directly related to the image of St Margaret on the right shutter

252

Lucas Cranach the Elder,
Portrait of a Young Lady,
 c.1500/06. Panel, 42.1 × 33.7 cm.
 Nuremberg, Germanisches
 Nationalmuseum.



253 >

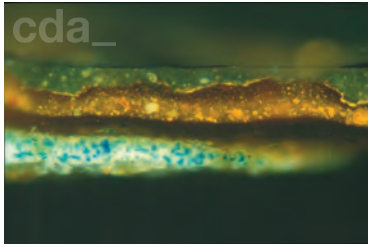
Detail from **Altarpiece with
 the Martyrdom of
 St Catherine,** 1506 (fig. 77).



of the altarpiece (fig. 253). Since 1882, the portrait painting has been recorded in the inventory of unknown authors.⁷⁷ The central issue here is whether we are dealing with an early work by Lucas Cranach the Elder, a painting after the same preliminary study or a copy of a section of the retable. If this portrait was used as a *modello*, then it is of particular interest to know what the court painter's intention was.

We see the half-length portrait of a young woman in a sumptuous robe. The headdress, in the shape of plaits with a wide golden band, identifies the sitter as a woman of marriageable age.⁷⁸ Both the costume and the jewellery hint at wealthy origins. The light blue background and the inscription *Magdalena von Bu[ü]ritz* were later overpainted with a dark blue-green colour. On the top left the words *AETATIS SUAE XXI 1523* and a coat of arms were added. These latter additions were preserved when, between 1981 and 1987, the light blue background was uncovered and the present condition of the painting was achieved.⁷⁹

The support of the portrait consists of a wide plank of lime wood. At some later point the lower edge of the picture had been cut by several centimetres.⁸⁰ The underdrawing was executed with a dry black medium (possibly black chalk or charcoal) on the ground, which is a pink layer containing lead white, red lead and calcium carbonate. Some forms are drawn confidently with a single line while others are drawn with strokes of varying length, overlaid and



254

Portrait of a Young Lady,

c.1500/06 (fig. 252). Cross-section from inscription.

The layers are from bottom upwards: blue paint layer containing azurite and lead white; transparent varnish layer; ochre-coloured mordant layer and gold leaf; discoloured blue overpaint. The ground layer is not present in this sample.



255 >

Detail from **Portrait of a Young Lady**, c.1500/06 (fig. 252).

256 >>

Altarpiece with the Martyrdom of St Catherine,

1506 (fig. 253). Infra-red reflectogram detail.

repeated to achieve more precision. The painting materials detected were not only in common use in the Cranach workshop but also in later centuries. Details such as the Virgin with the unicorn are drawn on a layer of gold leaf (fig. 259). Increased transparency of the lead-white-based flesh paint, presumably due to the change of the binding medium's refractive index and the formation of metal soaps during aging, has affected the expression, leading to a sharper outline of the eyes and the nose, which makes the face appear more stern. The final modelling was achieved with thin, medium-rich layers of glazing that are now abraded, perhaps due to harsh cleaning methods in the past. In addition, the appearance that was originally intended has obviously changed due to many small paint losses (fig. 255).

The inscription *Magdalena von Buritz* is written in ochre-coloured mordant and gilded with gold leaf (fig. 254). The style of lettering makes it probable that it was executed in the seventeenth century. This would support the supposition that the portrait could be a later copy. However, the first inscription has been applied over a layer of varnish (fig. 254) and the pigmentation of the mordant differs from the gilding of the parts of the robe and the headdress. This means that the authenticity of the description *Magdalena von Buritz* is not certain. The question as to whether there is any link between the inscription and the person depicted remains unanswered for the time being. Von Buritz is a family of Austro-Hungarian descent.⁸¹

If the Nuremberg portrait is extended by four to five centimetres on the lower edge, in line with the width of the other bevelled edges on the reverse, the format becomes obviously narrower than Cranach's Viennese dual portraits, but corresponds to the proportions of the large *Crucifixion* of 1503. Given the different places that Cranach stayed before being appointed court painter in Wittenberg, a comparison of the wood species and panel-making techniques would likely prove unproductive. It is possible, however, to draw conclusions by comparing the panels of the Wittenberg workshop as, in the early years, these were remarkable for their specific forms of production (see p. 57). The support used for the Nuremberg portrait is not typical of the early Cranach workshop at court.

The pink ground used in this portrait is unusual. As described in chapter II (see p. 97), according to the present stage of research into Cranach's surviving works, only the *St Jerome* (1502) and the *Holy Family* (1504) have a light red ground. On the *St Jerome*, like the *Nuremberg Portrait of a Young Lady*, red lead, white lead and calcium carbonate were detected as components. Furthermore, Cranach often preferred a light red *imprimatura*, which in many instances turned out to be a mixture of lead white and red lead. According to investigations undertaken until now, Cranach's interest in experimenting with both grounds and *imprimature* of different colours can be traced back mainly to the years of travel and the early years at court. However, there are also red lead grounds to be found in panel painting of later periods, for example with copies of Dürer's works from the late sixteenth and early seventeenth century.⁸²

No chalk or charcoal drawings similar to those on the *Portrait of a Young Lady* have been detected so far on Cranach's early panel paintings. He laid out the composition of the *Altarpiece with the Martyrdom of St Catherine* with a brush and a black liquid medium (fig. 256). The contours of forms and details are confidently defined. During the painting process, various passages were distinctly changed. While the face of St Margaret follows the preliminary drawing, her plaited hair originally was pinned up much higher than is visible on the surface. Moreover, infrared reflectography reveals a wide headband and the hairline on the temple in the underdrawing (fig. 256). The X-radiograph shows that at some later stage parts of the headdress were covered with foliage or they were reworked in brown paint. Cranach unified the form, adding the strand of hair curling down on one side and correcting a string of pearls with a black ribbon that runs round the head. These details are an important indication that either both works were executed after a *modello* that is no longer preserved, or that the *Nuremberg Portrait of a Young Lady* dates from before the *Altarpiece with the Martyrdom of St Catherine*.

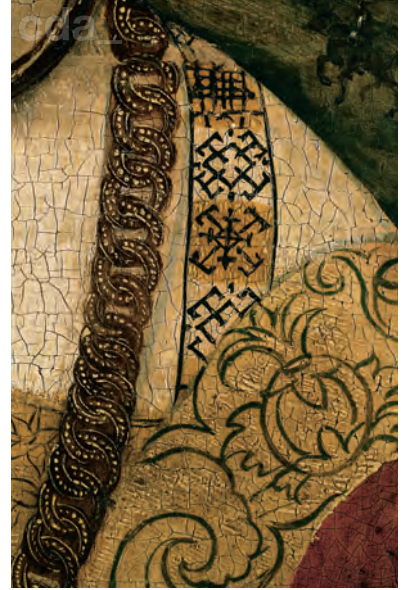
257

Detail from **Portrait of a Young Lady**, c.1500/06 (fig. 252).



258 >

Detail from **Altarpiece with the Martyrdom of St Catherine**, 1506 (fig. 253).



259

Detail from **Portrait of a Young Lady**, c.1500/06 (fig. 252).



260 >

Detail from **Altarpiece with the Martyrdom of St Catherine**, 1506 (fig. 253).



If images of the paintings of the young lady and of St Margaret are superimposed in their original size, the outlines of the heads and of the left shoulders appear almost to coincide. The right shoulder of St Margaret, the anatomy of which barely makes sense, was made thinner because of the tight arrangement on the narrow vertical format of the altar wing. In the half-length portrait, the woman was painted in a sitting position, her right arm leaning on her thigh. The face of St Margaret on the Dresden altar is comparatively smaller and the eyes are a little closer to one another. Consequently, the expression of the face is more childlike. Although it is almost certain that both paintings are based on the same study, it is not clear how the composition was transferred. There is no obvious evidence that pouncing or other technical methods were used.

The two paintings differ not only with respect to the preparation of support, the ground and the choice of the drawing instruments, but also to painting technique. Whereas the flesh tones of the Nuremberg portrait were painted very quickly, St Margaret's facial features appear to be more smoothly modelled, with the application of paint in layers. The execution of the costume and the jewellery on the *Altarpiece with the Martyrdom of St Catherine* remains inferior to the Nuremberg portrait (figs 257-260).⁸³ For example, the golden braid trimming, the embroidery and the jewellery of St Margaret are not gilded, they are painted in ochre and yellow. The green pomegranate pattern on the braid trimming is more simply drawn than on the Nuremberg painting, and the painting of one of the crystal patterns on the strap went wrong (fig. 258). A cross-like pendant, as well as a cross in St Margaret's hand, have been added as symbols for the defeat of the dragon. The different character of the materials depicted is imperceptible. The golden necklace does not correspond to the wearer's anatomy or to the strength of weave of the brocade braid trimming. The second necklace, consisting of rectangular chain-links of the type repeatedly occurring in paintings by Cranach and Dürer around the turn of the century, is missing.

On the altarpiece in Dresden, the bib is also decorated with an embroidered edging (fig. 260). The Virgin, arranged in a mirror image, is facing the central panel, touching the front legs of the unicorn in her lap. The fact that the huntsmen are missing between the necklace and the golden braid trimming (cf. fig. 259) results in a shift of meaning.⁸⁴ Did one of Cranach's assistants not recognise the huntsmen's significance, or indeed overlook them when painting St Margaret's robe?

Two copies of the *Altarpiece with the Martyrdom of St Catherine* by Daniel Fritsch are known to exist from the sixteenth century. They were transferred using pouncing (fig. 262).⁸⁵ In addition to the loss of the painterly quality, a different understanding of St Margaret's garment is apparent. A thin silk shirt, indicated in bright folds, is closed up to the saint's neck. The strap with the crystal pattern is positioned on the shirt. The remains of these white-blue folds exist on the Dresden version (fig. 261). There the X-radiograph reveals clear signs of damage in the area of the breast. On the Nuremberg painting, the shoulder is covered only with a semi-transparent white silk fabric (fig. 257), as a result the embroidered straps with the crystal pattern take on the obvious function of braid trimming for a shoulder piece.

The choice of the painting materials as well as the quality of the painting with its heightened understanding of function and detail make it unlikely that the Dresden *Martyrdom of St Catherine* served as a prototype for the Nuremberg

261

Detail from **Altarpiece with the Martyrdom of St Catherine**, 1506 (fig. 253).

262 >

Daniel Fritsch, detail from a copy of the **Altarpiece with the Martyrdom of St Catherine**, 1586. Wörlitz, Gothisches Haus.



portrait. Recognition of this fact offers grounds for the assertion that the *Portrait of a Young Lady* could be a work by Lucas Cranach the Elder.

In order to avoid time-consuming sittings for the model, the study for a portrait called for a rapid painting technique on the part of the painter. Use of a tinted ground helped meet this requirement. With the application of highlights and shadow tones, the volumes were easier to model on a medium flesh tone (a pale reddish colour) than on a white ground.

The rapid completion of the face on a quickly applied ground and the somewhat carelessly prepared painting support of the Nuremberg portrait convey the impression that this could have been a painted study.⁸⁶ The Nuremberg portrait is less representative than the surviving Viennese double portraits of Johannes Cuspinian and his wife Anna (1502/03, fig. 19) and of a scholar and his wife (1503, figs 26, 181) with their rich landscape backgrounds. The format is smaller and the background is just painted blue. Even though single portraits of women were very rare in those times, there is no evidence to suppose that this painting was part of a diptych. The assumption that the *Portrait of a Young Lady* might be a study painted in front of the sitter is, however, countered by the detailed execution of the robe.⁸⁷

In Cranach's early paintings the flesh tones are rich in colour and tone and the modelling of details is assured. The surviving portraits differ clearly from each other in the application of paint. During this period Cranach uses quite different techniques. Nevertheless, the execution of the Nuremberg portrait seems somewhat rough by comparison. This difference is less apparent when comparing the saints on the wing versos of the *Altarpiece with the Martyrdom of St Catherine*. Rieffel and Schade suspected that a journeyman was involved in the execution of the shutters.⁸⁸ The difference in speed and care visible in the X-radiographs could support this hypothesis. It is conceivable that the painting of the Nuremberg picture also involved an early assistant. Perhaps the painting of St Margaret and the *Portrait of a Young Lady* could be traced back to the same pattern.

Although technical examination cannot positively exclude a later date, paintings with closely similar techniques were executed before 1505. Could it be that Cranach was accompanied to Wittenberg by an assistant, who was involved in the Nuremberg portrait? There is evidence that as early as 1505 Christof Maler von München and a journeyman were employed in the court painter's workshop (app. II, 5).

What we can be sure of is that in 1506 the *Portrait of a Young Lady* (either in its present state or another version) was used by Lucas Cranach the Elder in Wittenberg as a pattern for the painting of St Margaret. The underdrawing of the altarpiece was clearly based on the portrait and was altered and developed in the course of painting. A comparative examination suggests that assistants were involved in the execution of less important elements of a picture such as garments and headdresses. These indicate the use of patterns and display less understanding of the forms. Alterations in the position of St Margaret's head and obvious corrections suggest Cranach's involvement, particularly in painting the faces. As the technical examination establishes that individual sections of a picture were not completed independently of each other, the master and his assistants must have alternated working on the painting. Similarly, van Mander described the workshop practice of Frans Floris (1519/20-1570) in his *Schilderboeck*: 'Frans set his journeymen to do the underpainting, after he had indicated to them his intention somewhat with chalk, letting them get on with it, after having said: Put in these or those heads; for he always had a good few of those to hand on panels.'⁸⁹

There are well-known examples of donor portraits being used as models for saints: Elector Friedrich III the Wise and his brother Duke Johann can be found on the wings of the Frankfurt altarpiece from 1509 as members of the holy kin-

ship.⁹⁰ The use of the portrait of a young woman as a pattern for a female saint is of particular significance. A portrait had a representative function and as such it was of public interest, which suggests that if we knew who this young woman was, we would possibly have further clues to a greater understanding of the *Altarpiece with the Martyrdom of St Catherine*. However, we do not have an explanation for the fact that the woman painted as a saint is depicted as being younger. Nor do we have a monogram, which, as on other panels, might have helped the viewer to identify her.⁹¹ There must be doubts as to whether the painting of the Virgin with the unicorn served to identify a particular sitter because of the widespread use of this iconography elsewhere.⁹² Was this same person, who was then depicted in the role of St Margaret, recognisable anyway? Some portraits were perhaps determined as part of the commission. However, in other works, the depiction of actual likenesses would certainly have aroused the curiosity of Cranach's contemporaries. It is 'the highest accolade... to paint people and to paint them in such a way that they can be recognised by everyone and seem to be alive'.⁹³ This remark made by Christoph Scheurl in his speech of 1508 and often regarded as an early tribute to the portrait painter is doubly appropriate here. Cranach was at pains to produce lifelike figures on the *Altarpiece with the Martyrdom of St Catherine*. Precisely painted portraits may have served like a 'pattern book' for this purpose. Cranach's rational working method – he was renowned for being a fast painter – and his desire for verisimilitude, even going as far as naturalist *trompe-l'oeil* effects, are no doubt reasons for his using the portrait of a young lady as a pattern for the painting of St Margaret.⁹⁴

Artistic exchange

In addition to the designs and models of his own creation, Cranach worked with numerous inventions by other master painters. Research has revealed a good number of more or less obvious borrowings in terms of style and motif.⁹⁵ In the early years, Cranach often used prints by other artists as patterns for his own compositions. He also knew how to make exact notes of the form and colour of painted works and incorporated these into the workshop's collection of reference materials. The most impressive example is the copy of the *Last Judgment* by Hieronymus Bosch,⁹⁶ which Cranach executed around 1520/25; this was probably not from the original but from a detailed colour study (figs 263–266). He also had a few originals by his contemporaries: panels by Barbari and Dürer were among the stock left in the studio on his death.⁹⁷ Moreover, Cranach used models by other painters as well. There is a payment to Peter Spitzen in Brunswick for lending the Wittenberg court painter portraits of the Dukes of Brunswick, painted on cloth (app. II, 256).

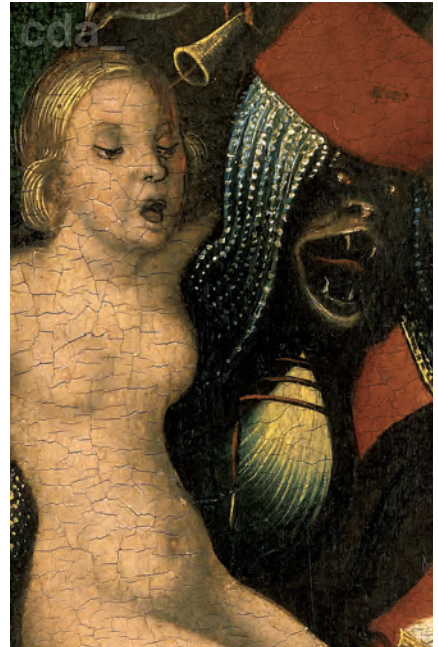
263

Hieronymus Bosch, detail from **The Last Judgement**, c.1500/08. Vienna, Gemäldegalerie der Akademie der bildenden Künste.



264 >

Lucas Cranach the Elder and workshop, detail from **The Last Judgement**, c.1520/25. Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie.



265

Hieronymus Bosch, detail from **The Last Judgement**, c.1500/08. Vienna, Gemäldegalerie der Akademie der bildenden Künste.



266 >

Lucas Cranach the Elder and workshop, detail from **The Last Judgement**, c.1520/25. Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie.



Conversely, numerous painters outside Wittenberg, including former workshop assistants, drew on Cranach's own wealth of designs. Grimm was the first to draw to public attention the portrait painting of Count Philipp von Solms, dated 1520.⁹⁸ On the basis of the monogram *H.D.*, he attributed this to Hans Döring, one of Cranach's pupils. Technical examination, particularly the rendering of flesh paint, supports this hypothesis.⁹⁹ It is known that by 1520, Hans Döring was no longer working in Wittenberg, but was already in Wetzlar in the service of the count depicted in the portrait. Features of the support indicate that it was produced outside the Wittenberg workshop.¹⁰⁰

However, the former pupil drew on Cranach's study of a portrait, dated c.1520, for his painting. If the outlines and inner forms of the painting and the study are superimposed, both works coincide for the most part.¹⁰¹ Therefore, it seems that the painting was executed with the aid of this study of the portrait, a copy or a transfer drawing of the same, or a finished portrait painting. In addition, Döring used the portrait of the count on the retable in Nieder-Weidbach whilst members of the Wittenberg workshop used it for St Sebastian on the altarpiece in Eichstätt. The last two portraits are painted to an obviously smaller but also matching scale. The existing findings make various conclusions possible: either Döring left the Wittenberg workshop at a later point than has hitherto been assumed¹⁰² and was able to take studies, copies or transfer drawings with him, or Cranach let his former pupil have or borrow them after he left the studio. Either way it is thus proved that portraits painted by Cranach also found a use outside the Wittenberg workshop.

Pacher, Dürer and Cranach

Benesch,¹⁰³ Weinberger¹⁰⁴ and Burke¹⁰⁵ have already pointed out stylistic resemblances as well as a few examples of the adoption of certain motifs between Michael Pacher, his pupil Marx Reichlich and Lucas Cranach the Elder. This drew attention to Salzburg where documentary evidence shows that Pacher and Reichlich worked there between 1495 and 1498. Bierende has also detected a Salzburg motif in Cranach's early *Crucifixion* (c.1500, fig. 17).¹⁰⁶ In depicting the rectangular keep and its battlements, in front of which to the right stands an outer castle, also with battlements, he has reproduced the *Trompeterschloss* fortress similar to the illustration in the *Schedelsche Weltchronik*.

New technical findings now lend support to the hypothesis that Cranach visited Salzburg and contacted the Pacher workshop. The materials that Cranach chose and his artistic techniques provide an indication that he not only studied Pacher's works after they were finished but also had access to Pacher's workshop practices, possibly even developing his own skills there. Michael Pacher produced his last great retable for the high altar of the Stadtpfarrkirche (now the Franziskanerkirche) in Salzburg. There is evidence that he was in that city from 1495, presumably moving there along with the workshop by this date at the latest.¹⁰⁷ The retable was already in position and the work practically completed in the summer of 1498 when Pacher died. This monumental work, which cost the considerable sum of 3300 *gulden*,¹⁰⁸ must have involved the participation of a large workshop. The only elements that survive are a fragment of a shutter showing *The Scourging of Christ* and *The Betrothal of the Virgin* and a panel depicting *Joseph Cast into the Well*.¹⁰⁹



267
Detail from **St Valentine and a Kneeling Donor**, c.1502/03 (fig. 33).

268 >
Michael Pacher workshop,
St Barbara, c.1500. Panel,
44.5 × 35 cm. Innsbruck, Tiroler
Landesmuseum Ferdinandeum.



In addition to general stylistic similarities between Cranach and Pacher that have been noted elsewhere,¹¹⁰ attention can be drawn to a shared taste for a particular purple colour found in the robe of *St Barbara* (c.1500, fig. 268), which is attributed to the Pacher workshop,¹¹¹ and Cranach's *St Valentine* (c.1502/03, fig. 267),¹¹² as well as a certain warmth of tone in painting landscapes.¹¹³ In his later years, Pacher was concerned with defining a new relationship between figure and landscape,¹¹⁴ and the *St Barbara* (c.1500) is reminiscent of Cranach's earliest works. This hypothetical relationship based on style and motifs¹¹⁵ can be substantiated by technical evidence. Methods of underdrawing,¹¹⁶ paint application and modelling in Cranach's early works all recall Pacher. A lively brushwork with broad, alternately spreading and stippling application of paint¹¹⁷ as well as an often diverging distribution of light and lead white are typical of both painters. This is visible in the flesh paint of the fragments from the Salzburg retable (cf. figs 269, 270). The modelling differs strikingly from the hatching technique used by Rueland Frueauf the Elder, who also worked in Salzburg. It also differs from the meticulous application of paint in Dürer's works.¹¹⁸ In Pacher's *Scourging of Christ*, the heads of the thugs are modelled in

269

Michael Pacher, **The Betrothal of the Virgin**, before 1498.

Vienna, Österreichische Galerie.
Detail of X-radiograph.



270 >

Fourteen Helpers in Need,

c.1505/07 (fig. 34). Detail of X-radiograph.



brown glazes and finished with sharply applied highlights. The same practice can be found in the faces of Cranach's Saints Valentine and Francis (c.1502/03). These techniques are not sufficiently characteristic to suggest the necessity of direct transmission from Pacher to Cranach; rather, they indicate how widespread comparable technical practices were,¹¹⁹ and, while the present findings do not prove Cranach's activity in Michael Pacher's large workshop, they do indicate a level of artistic exchange previously unexamined between contemporaneous south German and Austrian panel painters,¹²⁰ which certainly warrants further investigation.

The nature and the degree of association between Cranach and Dürer is controversial. Both artists were about the same age and Cranach's early works reflect a close scrutiny of Dürer. Drawing inspiration from his woodcuts as much as his paintings, Cranach reworked numerous motifs in new contexts.¹²¹ Koepplin rejected the suggestion that Cranach even actually worked in Dürer's workshop.¹²² Erichsen, however, has argued that the degree of access to Dürer's paintings implies that Cranach could well have been present in his studio.¹²³ Possibly, like Dürer, he spent a period in Michael Wolgemut's workshop¹²⁴ and conceivably he spent time in Nuremberg both before and after his stay in Vienna.¹²⁵

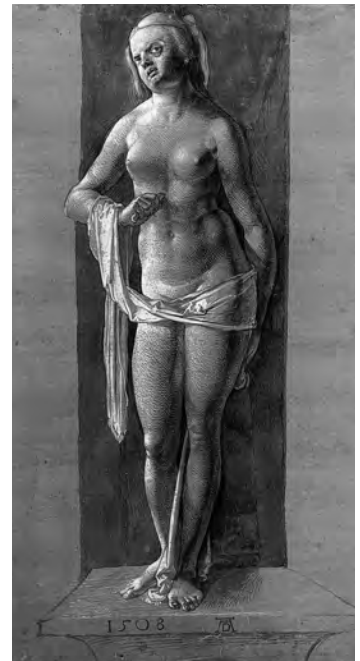


271
Albrecht Dürer, **Oswolt Krel**,
1499. Panel, 49.7 × 38.9 cm.
Munich, Bayerische
Staatsgemäldesammlungen.

272 >
Albrecht Dürer, **Jesus among
the Scribes**, 1506. Panel,
64.3 × 80.3 cm. Madrid, Museo
Thyssen-Bornemisza.

273
Detail from **Martyrdom of
St Catherine**, c.1508 (fig. 40).

274 >
Albrecht Dürer, **Lucretia**, 1508.
Drawing on paper, 42.3 × 22.6
cm. Vienna, Albertina.



Technical evidence lends support to a connection at the workshop level. A striking example of shared practice is the use of reddish grounds and *imprimatura*. For the portrait of Oswolt Krel from 1499 (fig. 271), Dürer chose a reddish mixture of red lead and lead white, the same ground that Cranach used in 1502 for *St Jerome* (fig. 81); this ground remains exceptional within the work of both artists (see p. 97). Judging from the preserved works, Cranach applied a reddish *imprimatura* on a white chalk-glue ground for the first time on the *Crucifixion* from 1503 (fig. 27); this technique was also used by Michael Wolgemut and Albrecht Dürer only a few years earlier (see p. 103). Dürer chose this particularly efficient painting technique again when he painted his *Jesus among the Scribes* (1506, fig. 272), which was completed in five days. He modelled volume using the application of highlights and shadows over a medium flesh tone rather than a white ground. This was also a technique preferred by the quick-painting Cranach. Since the use of a red ground or *imprimatura* could not be deduced visually from the finished painting, this indicates familiarity with workshop practice routine at the time.¹²⁶

However, it seems that this borrowing was mainly one-sided and Dürer barely responded to the challenge,¹²⁷ whereas Cranach pursued the artistic competition even while he was court painter in Wittenberg. Dürer painted the *Martyrdom of the Ten Thousand Christians* for the Saxon Elector Friedrich III between 1507 and 1508.¹²⁸ Cranach finished the Budapest *Martyrdom of St Catherine* (fig. 40)¹²⁹ of approximately the same size and proportion at about the same time. It probably relates to a further meeting of both artists. As the features of the wooden support for the *Martyrdom of St Catherine* differ noticeably from those of other Wittenberg works (see p. 65), it seems likely that the panel was produced outside the workshop, perhaps even in Nuremberg.¹³⁰ This assertion is supported by the observation that Cranach probably used motifs of the *Heller Altarpiece*, which were being produced at the same time in Dürer's workshop (1507/09).¹³¹ In addition, Cranach gave this work special attention in terms of composition and technical execution. The preliminary design on the panel appears to have been drawn in a concentrated way and with shadows partially deepened by hatching (fig. 87). This is reminiscent of Dürer's urge for precision.¹³² Subsequently, Cranach applied the reddish *imprimatura*.¹³³ In the course of the painting process, the composition was corrected again; the colour, plasticity as well as the materiality were modelled with an extraordinary sensibility. Some passages of paint were accentuated in a graphic way with a pointed brush, which again reveals a direct relation to Dürer's meticulous painting (figs 273, 278).

275 (page 319)

Lucas Cranach the Elder,

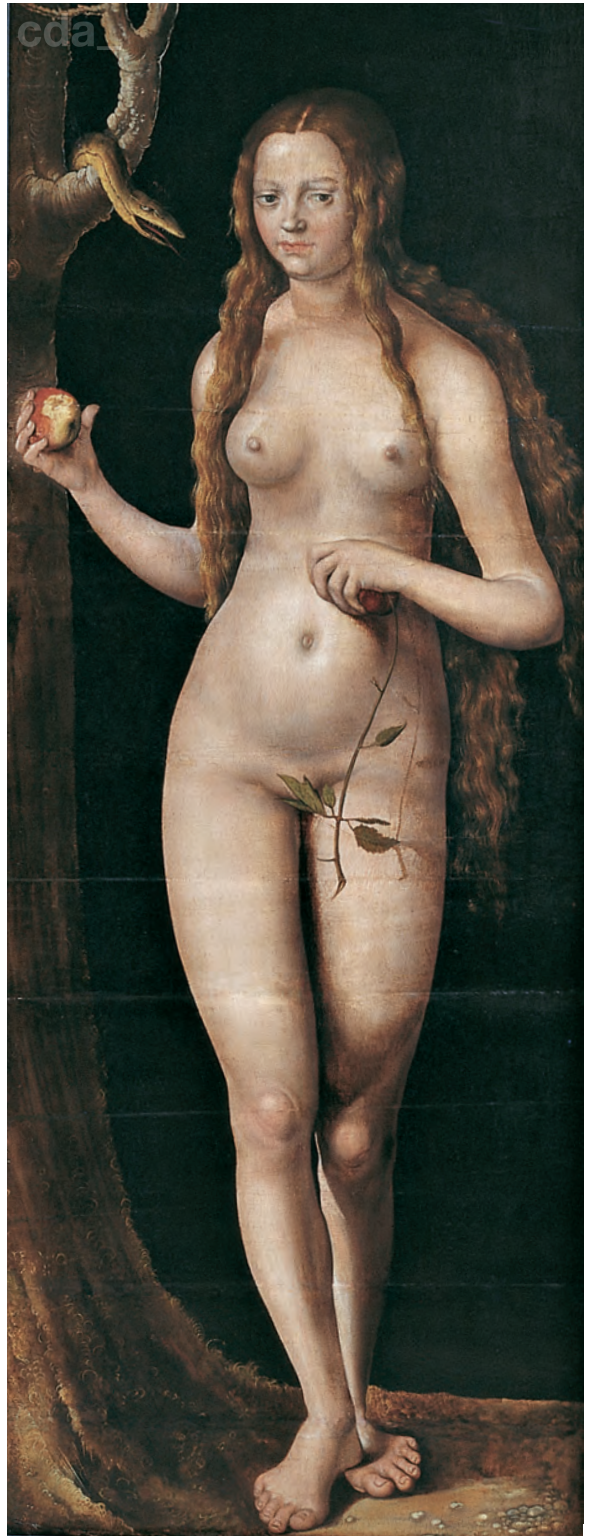
Adam and Eve, c.1508/10.

Panels, each 139 × 53.5 cm.

Besançon, Musée des Beaux-Arts et d'Archéologie.

Most likely Cranach had also studied Dürer's depiction of Adam and Eve from 1507.¹³⁴ This is evident in his earliest version of the same subject today in Besançon and until now disregarded by research (figs 275-277).¹³⁵ Cranach relied on similar design elements: the progenitors are painted on two separate panels and stand on stony earth in front of a black background. Some details, such as Adam's legs and feet – including their illumination – appear almost identical on Cranach's version. Possibly Cranach also knew Dürer's drawing of Lucretia from 1508 (fig. 274).¹³⁶ The motif of her right hand plunging the dagger into her chest appears to be reused on Cranach's Eve in a different context: here Eve holds an apple in her left hand in almost the same pose. The technical features of the two panels by Cranach are comparable to his early Wittenberg works: the planks are joined in cross-direction to the largest dimension of the panel and the *imprimatura* was applied with a brush more than three centimetres in width. An impulsive black brush underdrawing delineates individual forms without determining conclusively the borders for the rapid application of paint. Eve's right foot was initially positioned adjacent to the left one, an almost mirror image of Dürer's *Lucretia* (1508). This close relationship supports the assumption that Cranach developed his earliest version of Adam and Eve as a synthesis of Dürer's inventions¹³⁷ as well as his own ideas probably between 1508 and 1510.

It would, of course, be all too simple to explain Cranach's artistic development from Pacher's or Dürer's work. Although his compositions and techniques are connected to their painting, they are nevertheless formed without doubt by his own artistic merit as well as numerous other stimuli and influences.¹³⁸ The many references to Netherlandish panel painting, which appear in his work as a result of the journey of 1508, should be borne in mind.¹³⁹ What is new in this exploration of Cranach is the recognition that there was apparently an exchange between these painters, which went beyond the appropriation of motifs and elements of style and took in aspects of the use of materials and the techniques of painting. This level of technical exchange leads to the conclusion that the painters met each other in their workshops.



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Detail from **Adam**, c.1508/10
(fig. 275).

277 (page 231)

Detail from **Eve**, c.1508/10
(fig. 275).







VI

Summary

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Detail from **Martyrdom of St Catherine**, c.1508 (fig. 40).

The history of the reception of Lucas Cranach the Elder's artistic practices is characterised by different perceptions and fluctuating interest. During his lifetime, the speed of execution and the lifelike nature of his painting were much admired, and, with the general rediscovery of German old masters in the eighteenth century, interest grew regarding the durability of his pictures. Only later did aspects such as the working process and division of labour within the workshop become the subject of art historical research. During the twentieth century, technical examination and instrumental analysis began to be widely applied to his work. As an integral part of this research, a considerable number of paintings by Lucas Cranach the Elder and his workshop were examined for the first time using a broad range of analytical methods. Evaluation of these results was undertaken in conjunction with an analysis of documentary sources and the practices of his contemporaries. The aim was to extend our understanding of the technical and artistic production processes in Cranach's workshops.

Investigation into the interaction between different crafts in the course of the production of paintings and altarpieces shed light on the influence of non-artistic factors. The discovery that any change in the carpenters employed brought about a modification of techniques in the production of wooden supports has led to revised dating and provided insight into the original correlation of paintings. A completely new view of many pictures results from the evidence that Cranach carried out numerous commissions in standard formats. The majority of the surviving paintings produced between 1520 and 1535 can be categorised in a system of six format groups. Because of this we now understand that Cranach compelled himself and his assistants to harmonise designs within predetermined vertical and horizontal limits of the panel. Because different subject matter can be found within one standard format and the same themes appear also in different format groups, production without specific commission was presumably part of the court painter's regular practice. Cranach replaced the medieval unity of panel and frame with a non-uniform sequence of operations. The frame could either be produced at the same time or upon completion of a painting, in accordance with the commissioner's wishes.

The results of technical examinations and the evaluation of written sources bear evidence of carefully planned and co-ordinated stages of work from the first step – the production of the wooden panel – to the final step of packing in a case for transport. An analysis of display practices demonstrates that Cranach took into account not only the designated location of a work but also the position of the viewer, an aspect that until now has barely been reflected in the public display and viewing of his paintings in museums and galleries.

In his early years, Lucas Cranach's search for new forms of expression corresponded with continually changing materials and techniques. The preparation of wooden panels is characterised by many – possibly experimental – variations. Pink-coloured grounds and light reddish *imprimature* not only enabled the painter, who was celebrated for his speed, to model flesh tints rapidly, they also provide evidence of more intensive artistic exchange with his Nuremberg contemporaries.

While serving as the Wittenberg court artist, he made full use of a great wealth of different painting materials. By deploying different precious metal leaves and powder in varying ways, he exploited numerous modes of decoration. The value of gold versus the artistic virtuosity of depicting it with paint were frequently reconsidered. New analytical results broaden our knowledge in terms of the variety, production, sources of supply, quality, prices and application of altogether more than 25 different colourants used in the painter's workshop. This demonstrates that Cranach had a far wider range of pigments at his disposal than it has hitherto been possible to establish for his contemporaries Dürer and Grünewald. Pigments and binding media vary both within single works and across different commissions. The choice is influenced not only by traditions, the commissioner's wishes and his financial resources, but also by local sources, as well as artistic exchange and trade. For example, Cranach used fluorite only on a few panels painted in Vienna, and the use of ultramarine apparently remains restricted to a short period after his visit to the Netherlands. In the second decade of the sixteenth century, Cranach reverted to more traditional combinations of material and extended his range of painterly effects by using various gilding techniques as well as aqueous and oil paints simultaneously on his panel paintings. This diversity of material diminishes with the serial picture production of later years where more finely ground pigments predominate. As a result, the paint layers are often extremely thin.

Investigation of the layer structure reveals, for the first time, evidence of Cranach's constant search for both the most appropriate and the most efficient techniques. Usually each form was built up separately in several layers.

Starting with the flesh painting, which showed the greatest variation in technique, Cranach gradually worked up the whole image uniformly rather than completing one area after another in sequence. Cranach's brushwork in flesh painting is predominantly rapid and vigorous. Changes in composition are rare and, compared to Dürer, he was definitely a 'quick painter'. But in other cases, areas of flesh are built up laboriously in many layers and often the paint is stippled with a blunt bristle brush. This technique, which was particularly easy for Cranach's collaborators to copy, became the predominant method for modelling flesh tones in his workshop in the second decade. While Cranach himself appears to have preferred methods to complete a single painting rather quickly, with increasing workshop production, the use of more traditional and time-consuming practices also increased. This can only be understood as efficient in the context of serial picture production. Cranach absorbed an enormous wealth of practices; he developed and varied them with consummate ease to fulfil both the commissioners' expectations and his own ideas on painting. Several technical solutions, as well as forms of organisation, foreshadow later developments or occupy a unique position in the history of art.

This research offers a re-evaluation of Cranach's canvas paintings. Preserved invoices show how inadequately the few surviving examples represent their early popularity and the range of subject matter. In the 1530s, Cranach painted almost as frequently on canvas as on panels and, in the following decades, the cloth support even predominates in his invoices. Between 1505 and 1553, more than 200 paintings were listed as being on textile supports and as many items again, which were intended for temporary use. In addition, during this period the workshop used more than 1200 *ellen* (c.500 square metres) of linen as a painting support. Account books and contemporary weavers' ordinances have been consulted, as these document the different origin and varying quality of the cloth. Proteinaceous and oil-based paint media were identified by instrumental analysis, and technical particularities such as, for example, preparatory layers containing starch, were investigated in the context of contemporary painting. The use of a textile support was in accordance with Cranach's quest for efficient workshop organisation and canvas paintings were popular with the court, as they were valued for their specific optical and technical characteristics, not just as inexpensive substitutes or practical alternatives.

Cranach's invoices reveal that he painted not only on wood and textiles but deployed almost all techniques of painting for his time with great artistic finesse. He created not only individual items of furnishing but also decorations of complete rooms of impressive diversity. The range of his activity

extends far beyond that of his contemporaries Dürer, Holbein and Grünewald. The research shows that Cranach was particularly adroit at maintaining high standards of quality by employing several collaborators permanently, in addition to reacting to the level of commissions at any one time by engaging jobbing journeymen on a temporary basis or co-operating with other painters commissioned by the court. In this way he organised a workshop that functioned simultaneously on very diverse levels and in different areas. Close examination of the panel paintings suggests that there were different forms of division of labour in the workshop. This varied according to the competence of the workshop assistants, time constraints, the commission, the format, the use of preliminary studies and models, the significance of individual passages within a painting and, not least, the eminence and standing of the commissioner. There are numerous indications supporting the idea that the master and his journeymen were involved on an alternating basis even within a given painting. However, it was not possible to discern the existence of a co-operative painting process in which different assistants were allotted a clearly defined or consistent repetitive task as part of a 'conveyor-belt production'. The attempt to make a clear distinction of the individual contribution founders on a workshop practice, the aim of which was to eliminate any separation of hands by ensuring imperceptible differences in quality.

As a result of this research, knowledge of how portrait studies were used in Cranach's workshop has been considerably enhanced. What is of particular importance here is the discovery that a *Portrait of a Young Lady*, hitherto disregarded by earlier researchers, served as a model for St Margaret on the right wing of the *Altarpiece with the Martyrdom of St Catherine* (1506). The rational working method of such a rapid painter as Cranach and his quest for realistic representation are investigated as possible reasons for the integration of the portrait into the altarpiece.

The vast number of results from technical examination and instrumental analysis, as well as comparative evaluation with written sources, have allowed a detailed characterisation of the wide spectrum of materials and techniques employed in Cranach's workshop. On the basis of this information it was possible to designate works which, because of obvious divergences, in all probability did not originate in the Wittenberg workshop. It will only be possible to distinguish clearly between the unique features of his techniques and general contemporary practice when more analytical results from his contemporaries become available for comparison. This research deals with the question of where Cranach could have found stimuli for his choice of material and his

techniques of painting. In addition to stylistic similarities, the technical findings suggest that there was an exchange between the young Cranach and the older Michael Pacher in Salzburg. Also, an artistic exchange between Cranach and his Nuremberg contemporaries Michael Wolgemut and Albrecht Dürer was obviously not restricted to the appropriation of motifs and elements of style, but took in aspects of use of materials and techniques, which at the time could not have been identified in the finished painting. This level of technical exchange leads to the conclusion that Cranach called in on these well-known workshops during his years of travel and took a good look at not only ideas for subjects but also the materials and techniques employed there. There is no doubt that his own techniques and artistic practices were shaped by his personal artistic talent as well as numerous other stimuli and influences.

By drawing together aspects of research in the fields of art history, philology, science and technology, it has been possible in the present study to elucidate the influence of materials and techniques as well as economic factors on the production of art, and thus considerably broaden our understanding of Lucas Cranach the Elder's works. It is hoped that this example will stimulate intensified co-operation between the various disciplines in the future. There is no doubt that scientific and technical evidence, like historical evidence, continually needs to be re-examined and, where appropriate, re-interpreted in the light of new discoveries.

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Lucas Cranach the Elder and workshop, detail from **Cardinal Albrecht of Brandenburg as St Jerome**, 1525. Darmstadt, Hessisches Landesmuseum.



Notes

Preface

1 Herberts 1957, 1.

Chapter I

Cranach's practice of painting in the judgement of history

¹ Selected primary documents are collected in appendix II and are referred to in the text in the following way (app. II). Full references for all works cited in footnotes are given in the bibliography. For each painting, only the date is provided; full information is available in appendix I.

² Cf. Heiland 1953; Ladendorf 1953.

³ Here an effort was made to take into account literature relevant from my point of view out of the immense and almost overwhelming number of publications since the second half of the nineteenth century.

⁴ Scheurl 1509 (*Schuchardt* 1851, I, 27-35)

⁵ Cf. Plinius XXXV, 77, 95. The realistic form of painting is also the subject in the writings attached to the letter of dedication by Christian Baivarius (Köhler 1794, 179), in the description by Philipp Engelbrecht in 1514 of a marriage bed painted by Cranach the Elder (Lüdecke 1953 A, 56-57) and in the poem of lament of 1536 by Johann Strigel on the death of Hans Cranach (*Schuchardt* 1851, I, 103).

⁶ Scheurl 1509 (*Schuchardt* 1851, I, 34).

⁷ Cf. Dürer writing to Jacob Heller on 4 November 1508 and 21 March 1509 (*Faensen* 1963, 100).

⁸ 'Quid referam expressum per mille exempla Lutherum' Strigel 1536 (*Schuchardt* 1851, I, 105).

⁹ Melanchthon *Zwei Bücher von den Anfangsgründen der Redekunst*, 1532 (*Lüdecke* 1953 A, 77).

¹⁰ 'Sed mester Lucas est ein grober maler', Luther 1545 (*Kugler* 1852, 49).

¹¹ Lüdecke 1953 A, 138-139.

¹² 'Maister Lucas churfürstlicher Moler zu Wittenberg hat under anderm auch dis lob gehabt das er den besten samet soll gemalt haben darumb das er in schwartz noch schwertzer und aufs allerschwerzist hat molen kunnen...', Neudorffer 1555 (*Schuchardt* 1871, 85-86). See pp. 162, 192.

¹³ Gunderam 1556 (*Lüdecke* 1953 A, 84-88).

¹⁴ '...nachmachen, abreißen, nachmalen, abmodlen, illuminieren und Patronieren', Mylius, Leichenpredigt from 27 January 1586, printed Wittenberg 1586 (*Arnold* 1998, 145-176; *Lüdecke* 1953 A, 93).

¹⁵ Cf. Goldberg 1980.

¹⁶ Daniel Fritsch of Torgau, for example, copied the *Altarpiece with the Martyrdom of St Catherine* (1506) in 1586 (Wörlitz,

Gothisches Haus) and 1596 (Berlin, Tempelhof, Alte Kirche).

¹⁷ He ranked him among the 'good masters' whose works have been mostly lost but are still to be found in engravings (*Mander* 1617 A, 10).

¹⁸ *Sandart* 1675, 74.

¹⁹ *Christ* 1726, 344.

²⁰ *Christ* 1726, 346-347.

²¹ Cf. Goldberg 1997, 112-122.

²² *Reimer* 1761, 33-34.

²³ *Hagedorn* 1762, 742; cf. *Wagner* 1988, 16-17.

²⁴ Cf. *Berger* 1912, 47-63.

²⁵ *Fiorillo* 1803; cf. *Holst* 1934, 26-27, *Nadolny* 2005.

²⁶ *Meusel* 1780, 63.

²⁷ Cf. *Knirim* 1839, 112; *Fernbach* 1845; *Losos* 1988, 123.

²⁸ 'The immortal likeness of his spirit Luther brings out himself, his mortal features however the wax of Lucas'. Cf. *Wex* 1996, 8; *Warnke* 1984, 37-39; *Strehle, Kunz* 1998, 144.

²⁹ Cf. *Köhler* 1794, 192.

³⁰ Cf. *Heller* 1821; *Kugler* 1847; *Schuchardt* 1851; 1871.

³¹ His few remarks on technical details were wrong. The images of the electoral family are not painted upon a 'gold ground' which presumably at that time was a characteristic feature of old German masters (*Meyer* 1813, 3). Cf. also the wrong description of the paintings of the *Leipziger Bilderfund* of 1815, *Heiland* 1997, 155.

³² *Lucanus* 1828, 9.

³³ *Goethe* 1830 (*Heiland* 1997, 10-19).

³⁴ *Morgenblatt für gebildete Stände*, 22 March 1815, No. 69, 273-274 (*Heiland* 1997, 155).

³⁵ Cf. *Holst* 1934, 32, 43.

³⁶ '... nicht wenig hierzu trug die glückliche Wahl gut getrockneter Tafeln von Lindenholz bei, die er gut zu grundieren verstand, und die von Würmerfraß und Restauratorenhand bis auf den heutigen Tag verschont geblieben sind', *Schadow* 1825, 96. The technique was also valued by art-loving writers of this time. Concrete comments remained the exception, however. Cf. *Schopenhauer* 1822.

³⁷ Cf. *Voigt* 1820, 242-265; *Förstemann* 1836, 1837.

³⁸ *Schuchardt* 1851, I, 89.

³⁹ *Schuchardt* 1851, II, 8.

⁴⁰ *Schuchardt* 1851, I, 120.

⁴¹ *Kugler* 1852, 47.

⁴² *Kugler* 1852, 67.

⁴³ *Eisenmann* 1877, 34.

⁴⁴ *Lindau* 1883, 234.

⁴⁵ Cf. *Meyer* 1813, 3-5; *Schadow* 1825, 96-99; *Howard* 2003, 1; *Nadolny* 2005, 1028-1033.

⁴⁶ Cf. *Knirim* 1839, VIII; 1867 *Pettenkofer* expressed this necessity (*Eibner* 1922, XIII).

⁴⁷ Cf. *Rees-Jones* 1990; *Goltz* 2002, 86-88.

⁴⁸ *Cremer* 1895, 81; cf. numerous publications of the *Deut-*

sche Gesellschaft zur Beförderung rationeller Malverfahren in Technische Mitteilungen für Malerei since 1884.

- ⁴⁹ Friedländer 1899, 238-249.
⁵⁰ Cf. Ladendorf 1953, 182-185.
⁵¹ Woermann 1900, 88.
⁵² Flechsig 1900, 7.
⁵³ Michaelson 1902, 2-4.
⁵⁴ Friedländer 1902, 228.
⁵⁵ Friedländer 1902, 228.
⁵⁶ Cf. Friedländer 1902, 2.
⁵⁷ Ameseder 1910, 80.
⁵⁸ Heidrich 1909, 8.
⁵⁹ Roch 1910, 268.
⁶⁰ Benesch, for example, describes the cloak of *St Francis* (c.1502/03) as painted on a reddish-brown ground, and mentions 'clear layers of varnish' to the 'thickness of several millimetres' between the different paint layers of the foliage (Benesch 1928, 98).
⁶¹ Flechsig 1900, 9-33.
⁶² Cf. Friedländer 1919, 84; Glaser 1923, 96; Schenk zu Schweinsberg (*Schade, Schuttwulf* 1994, 18).
⁶³ Klein 1994 A, 195.
⁶⁴ Friedländer 1909, 276.
⁶⁵ Raehlmann 1910.
⁶⁶ Eibner 1909, 421-422.
⁶⁷ Doerner 1921, 187-191; Wehlte 1946, 164-166.
⁶⁸ Gronau 1972, I, 137.
⁶⁹ Cf. Sandner, Ritschel 1994, 188; Grimm (*Grimm, Erichsen, Brockhoff* 1994, 348); Giebe, Schölzel 1996, 71.
⁷⁰ Decker 1983, 50.
⁷¹ Guratzsch 1997, 66.
⁷² Benesch 1928, 1.
⁷³ Michaelis 1989/90, 131.
⁷⁴ Degen 1953, 195.
⁷⁵ Riemann 1972 A.
⁷⁶ Staatliche Museen zu Berlin 1980, 47.
⁷⁷ Old entry in the Conservation Report on the *Altarpiece with the Martyrdom of St Catherine*, Staatliche Kunstsammlungen Dresden, Gemäldegalerie Alte Meister, unpublished.
⁷⁸ Giebe, Schölzel 1996, 72.
⁷⁹ Bünsche 1995, 59.
⁸⁰ Koepplin, Falk 1977, 53-54.
⁸¹ Guratzsch 1997, 60.
⁸² Mahn 1972, 276-277.
⁸³ Zaglmaier 1988, 25-30, fig. 48-54; Barkowsky 1980, 76-77.
⁸⁴ White, Pilc 1995, 88-89; Campbell, Foister, Roy 1997 B, 40-43.
⁸⁵ Faber 1914.
⁸⁶ Bode 1921.
⁸⁷ Goltz 2002, 90-92.
⁸⁸ Brandmayer 1930; Wolters 1932.
⁸⁹ Wolters 1938, 53.
⁹⁰ Today the collection contains X-radiographs of more than

75 panel paintings by Cranach the Elder, Cranach the Younger and by the workshop. The material is kept in the Landesamt für Denkmalpflege, Sachsen-Anhalt in Halle/Saale.

- ⁹¹ Cf. Roy 1998, 2.
⁹² Couto, Valadares 1938, 49-54.
⁹³ Since c.1928 paintings are examined in ultraviolet light (Nicolaus 1978, 35-37).
⁹⁴ Benesch 1928, 78, 81.
⁹⁵ Cf. Nicolaus 1978, 45; Hollanders-Favart, Schoute 1979; Asperen de Boer 1998, 21-22.
⁹⁶ Riemann 1972 A; Mairinger 1972; Gronau 1972; Schade 1972 A; Schade 1974, 48-49; Schade 1977, 11-12.
⁹⁷ Hentschel 1948; Degen 1953; Kostrov 1954; Wennig 1954.
⁹⁸ Scheidig 1953; Lüdecke 1953 A; Schade 1974.
⁹⁹ Giesecke 1955, 191.
¹⁰⁰ Schade 1961/62; Schade 1972 A, B.
¹⁰¹ Schade 1972 B, C.
¹⁰² Riemann 1972 A, B.
¹⁰³ Gronau 1972.
¹⁰⁴ Cf. Grate 1961; Hutter 1972; Schade 1972 A; Börsch-Supan, (*Koepplin, Falk* 1974, 413-419).
¹⁰⁵ Cf. Bach, Decker 1973; Bjerre 1974; Cadorin, Beillon 1976; Cadorin 1977; Staatliche Museen zu Berlin 1980; Riemann 1980; Bünsche 1990; Magirus, Kelm, Eisbein, Mühlfriedel 1992; Bünsche 1993; Mieth 1993; Möller 1999.
¹⁰⁶ Schütz 1972; Köhler 1973.
¹⁰⁷ Koepplin, Falk 1974, 12.
¹⁰⁸ Friedländer, Rosenberg 1932.
¹⁰⁹ Koepplin, Falk 1974, 12-13; cf. Grimm 1994, 33, note 30.
¹¹⁰ Giesecke 1955, 187.
¹¹¹ Koepplin, Falk 1974, 12. On painting technique, one still refers to Benesch's comments of 1928. The condition of the works was not always well established so that, for example, Cranach's *Self-portrait* (1531), was wrongly taken to be a fragment of a larger panel (see p. 47).
¹¹² Cadorin, Veillon 1976.
¹¹³ Klein, Bauch 1981, 1983; Klein 1994 A, B, 1998, 1999.
¹¹⁴ Grimm, Konrad 1990; Lübbecke 1991; Hoffmann 1992; Hand, Mansfield 1993; Montout 1994; Löcher, Gries 1997; Schneckenburger-Broschek 1997, Brinkmann, Kemperdick 2005.
¹¹⁵ Grimm, Erichsen, Brockhoff 1994.
¹¹⁶ Cf. Nicolaus 1978, 20; Cadorin 1977.
¹¹⁷ Grimm 1994, 42.
¹¹⁸ Tacke 1994, 51-66.
¹¹⁹ Sandner, Ritschel 1994, 186-193.
¹²⁰ Asperen de Boer 1970.
¹²¹ Sandner 1994, 1995, 1998 B.
¹²² Cf. Chanu 1995; Ritschel 1995, 1996; Schawe 1995; Beck 1995; Bünsche 1995; Giebe, Schölzel 1996; Campbell, Foister, Roy 1997 B; Heydenreich 1997, 1998 A, B, 2000; Schawe 1998; Bünsche 1998 A,B.

¹²³ Cf. Barkowsky 1980, 75-80; Zaglmaier 1988, 25-30; Holm, Nurminen 1988.

¹²⁴ Cf. Tuurnala et al. 1991; Wagner, Neelmeijer, Schramm 1994; Neelmeijer, Wagner, Schramm 1994, 1995; Noll-Minor 1996; Campbell, Foister, Roy 1997 B; Schmidt 1998; Heydenreich 1997, 1998 A, B, 2000.

¹²⁵ Cf. chapter II, p. 129.

¹²⁶ Cf. Lücke 1998.

¹²⁷ Cf. Klein 1994 A, B, 1998, 1999. This does not exclude mistaken identification of wood species even in more recent times. For example, Ritschel 1996, 14, named beech to be the support for the *Altarpiece of the Holy Kinship* (1509) although it is, according to my examination, lime wood which was later thinned and reinforced with beech wood. Cf. also Brinkmann, Kemperdick 2005, 204.

¹²⁸ Sandner, Ritschel 1994; Grimm 1994, 1998; Sandner 1998 B.

Chapter II

Panel painting

The wooden support

¹ Cf. Löcher 1985 B; Schneckenburger 1973.

² Cf. Huth 1923, 15; Hellwag 1924, 346; Verougstraete-Marcq, Schoute 1989, 12.

³ Cf. Rosenberg 1960, 20-21.

⁴ Cf. Tacke 1994, 54.

⁵ Cf. Koeplin, Falk 1976, 496, No. 346.

⁶ This kind of coordination is clearly visible in the *Neustadt Altarpiece* (1511-13) in *St. Johannis* at Neustadt/Orla. Cf. also Koller, Wibiral 1981, 177.

⁷ Sächsisches Staatsarchiv, Dresden, Loc. 9126, Artillerie- und Bausachen 1576-1584, Bl. 446; Schade 1974, 452, No. 529; Löcher, Gries 1997, 171.

⁸ FR 4 (56-55.8 x 41.4-41.6 cm).

⁹ FR 6, 7 (60.3-60.1 x 45.4-45.2 cm; both panels trimmed at the sides c.0.3 cm).

¹⁰ FR 8 (54.0 x 39.0 cm); FR 9 (52.6-52.4 x 36.2-36.4 cm).

Both panels were trimmed along the edges to a varying degree. Due to preserved ground edges the original measurements of c. 54 x 40 cm can be reconstructed. In this, Koeplin's assumption that the panels in their untrimmed state were the same size as those of the Cuspinian portraits, is thus not confirmed. Cf. Koeplin 1964, 66.

¹¹ FR 10 (70.8-70.5 x 52.9-52.5 cm).

¹² Cf. Koeplin, Falk 1974, 163.

¹³ Pythagorean numbers (after Pythagoras of Samos) result when three connected whole positive numbers a, b, c, make up the equation $a^2 + b^2 = c^2$, e.g. $3^2 + 4^2 = 5^2$.

¹⁴ Cf. Koeplin, Falk 1974, 276-280.

¹⁵ FR 77, 379, Sup. 6A.

¹⁶ It remains an open question whether the largest preserved panels from the Wittenberg workshop, along with contemporary Flemish altarpieces, relate to the lengths in which boards were traded. It is more than likely that, apart from the wishes and financial means of the commissioner, the characteristics of the material and workshop capacity set upper limits for the largest panels. Cf. Verougstraete-Marcq, Schoute 1989, 16-17, 77. The centre shrine of the *Neustadt Altarpiece* (1511-13) is 282 cm high and 225 cm wide, the wings with frame have a dimension of 282 x 112.5 cm. Assuming that one *elle* is equivalent to around 56.6 cm, then the width of the shrine would be 4 *ellen* and the maximum length of boards 5 *ellen*.

¹⁷ FR 64D, 91, 100, 156 et al.

¹⁸ Cf. Wittmann 1998, 178-179; Schade 1999, 52. A few *tondi* show religious as well as historical and allegorical scenes from mythology and antiquity (cf. Koeplin, Falk 1974, 276-280, Löcher 1985 B, 39).

- ¹⁹ FR 166, *Portrait of Emperor Charles V*, Eisenach, Wartburg-Stiftung.
- ²⁰ Cf. Pohl 1971, 37-44.
- ²¹ FR 84, cf. Burke 1936, 43.
- ²² More than 210 panels were investigated (Friedländer, Rosenberg 1978, Nos. 140-350), winged altarpieces, diptychs or parts thereof, and *tondi* excluded. The measurements are mainly based on Friedländer and Rosenberg. Inaccuracies result from this, since trimming has hardly been taken into account and little agreement existed as to whether it is the painted surface or the size of the panel which is given as measurement. For a more precise evaluation, most panels would have to be measured again. The formats (A-F) were named by the author (cf. Heydenreich 1998A).
- ²³ Cf. Alberti 1957; Pfeiffer 1975 and appendix *Measurement and Coinage*.
- ²⁴ Klein 1994 A, 197.
- ²⁵ Grimm 1994, 42.
- ²⁶ In order to achieve a consistent size in all models, the corner points are marked with pinholes, in other words a stencil was transferred onto the individual sheets with a needle. Using a ruler and a pen, the holes were then connected to each other. Cf. Tacke 1992, 236-237; Tacke 1994, 54-55.
- ²⁷ Berlin, SMBPK, Kupferstichkabinett, Inv.-No. 387 and Munich, Bayerische Staatsgemäldesammlungen, Alte Pinakothek; Tacke 1992, 137-138; Tacke 1994, 63-64.
- ²⁸ According to Friedländer, Rosenberg 1978.
- ²⁹ By the fifteenth century, altarpieces in the southern Netherlands had already been standardised and it can be assumed that standardisation was also applied to panels made for use as painting supports. In the late sixteenth century this practice was widespread. Cf. Campbell 1998, 23; Bruijn 1979; Jacobs 1989; Wadum 1998, 160, 182-83; Wetering 1986, 13-17; Kirby 1999, 20. In England, for example, Anthonius Mor painted several portraits on panels of the same size. Campbell 1990, 65.
- ³⁰ Schade 1993 B, 9, 45, according to the result of an investigation by the conservators Anke and Jan Großmann, Dresden, on 27 February 1992. Schade considers the date to be c.1800. A recent examination confirmed that the composition of the ground and the painting materials on the extended board differ from those on the larger part of the painting.
- ³¹ Grate 1961; Erichsen (*Grimm, Erichsen, Brockhoff* 1994, 359).
- ³² FR 123, 124, 155, 199, 200, 329 et al.
- ³³ FR 76, 214A, 303 et al.
- ³⁴ FR 311A et al.
- ³⁵ Koepplin (*Koepplin, Falk* 1974, 76-78, No.25).
- ³⁶ Friedländer, Rosenberg 1978, 111, No. 214A.
- ³⁷ I am grateful to Jutta Waschke, Landesamt für Denkmalpflege Rheinland Pfalz, Mainz, for the joint examination.
- ³⁸ Schade 1972 D, 368-375.
- ³⁹ The species given by Schütz 1972, 17, Cadourin, Veillon 1976, 443, Koller 1984, 287 and Schütz 2000, 123 are incorrect. Current identification was carried out by Peter Klein.
- ⁴⁰ Hutter 1972, 39 without documentation on the method of identification.
- ⁴¹ The investigations by Koller show that spruce is the wood most frequently used in the alpine regions and those along the Danube for panel paintings between 1300 and 1580 (Koller 1999, 38). The panel in the Angermuseum at Erfurt bearing the legend of St Barbara (c.1530/40) is said to be of spruce, but for this we have no definite results.
- ⁴² *Altarpiece of the Virgin* (1518), Brandenburg Cathedral, *Altarpiece of the Virgin* (c.1513/20), Kade (here the shrine is made of coniferous wood and the shutters of deciduous wood).
- ⁴³ FR 47A, 48, 49, 64D, 77, 78, *Crucifixion*, Dessau, St. Johanniskirche, *Crucifixion*, Bremen, Stiftung Ludwig-Roselius-Museum, Inv.-No. LR2356.
- ⁴⁴ Dessau, St. Johanniskirche. (cf. Mieth 1993, 28), Bremen, Stiftung Ludwig-Roselius-Museum, Inv.-No. LR2356 et al. Cf. also Grimm, Konrad 1990, 180; Kolb 2005, 264.
- ⁴⁵ FR115 and the *Posterstein Crucifixion*, Gera, Kunstgalerie.
- ⁴⁶ FR 379, Sup 6A; Weimar, Stadtkirche St. Peter and St. Paul.
- ⁴⁷ Koepplin, Falk 1976, 683.
- ⁴⁸ While Friedländer and Rosenberg mention oak as the supports for FR 152 and 338 in 1978, Klein identified them as beech (examination of 15-21 July 1980 and Klein 1994 A, 195).
- ⁴⁹ Friedländer 1919, 84; Glaser 1923, 96; Koepplin, Falk 1976, 679-683; Friedländer, Rosenberg 1978, No. 27, 28, 56; Schade, Westheider, Schuck 2003, 166. The identification of oak is not sufficient to prove that panels were made in the Netherlands. Also in 1509, Master Hansen, for example, receives 'Two oakwoods from Cuntzen Balbirer ... for the panel for the new altar' (app. II, 36). The support of the *Portrait of a Woman* (c.1508) shows a wide bevelling on the reverse, corresponding to many sixteenth-century Dutch panels (cf. Wadum 1998, 160-161). The coat of arms on the ring finger of the *Man with a Rosary* (c.1508), apparently that of the Dutch family of Sixte Hillegom, would support the view that both pictures were painted in the Netherlands.
- ⁵⁰ Cf. Lübbecke 1991, 194 and Koepplin 2003 A, 68, fig. 33 (here contradictory beech and lime wood).
- ⁵¹ Kisters, F., personal communication 14 July 2003.
- ⁵² Cf. Klein 1994 A, 196, cf. chapter IV.
- ⁵³ Cf. Klein 1994 A, 196.
- ⁵⁴ Campbell, Foister, Roy 1997 B, 17. As a contradiction, Bünsche 1998 A, 61 and Bünsche 1998 B, 31 names oak as being the support for a portrait of Elector Johann the Steadfast (c.1532) at Schloss Gottorf, although, according to Bünsche (*Grimm, Erichsen, Brockhoff* 1994, 355-256), only the text was mounted onto an oak panel extension and the actual support, according to details given by the author, is beech. In Bünsche 1998 B, 31, oak is also named as being the support for a portrait of Martin Luther (c.1543).

⁵⁵ Sold in Vienna, Dorotheum, October 1996; cf. Mairinger, F., *Bericht über die naturwissenschaftliche und maltechnische Untersuchung eines Gemäldes: "Kreuzigung", bezeichnet L. Cranach d.Ä. (U 681)* of 4 June 1996, unpublished.

Friedländer, Rosenberg 1978 seem to have confused this painting (fig. 218) with the panel in Indianapolis (FR 218).

⁵⁶ Eisenach, Wartburg-Stiftung

⁵⁷ Cadorin, Veillon 1976, 443.

⁵⁸ Koepplin, Falk 1974, 304, No. 200.

⁵⁹ Cf. Klein 1994 A, 196; Klein 1994 B, 215; Klein 1998, 113.

A portrait of Martin Luther (dated 1525 and marked with the serpent signature), painted on oak, in private ownership, turned out to be a forgery despite a report by Friedländer: 'This portrait of Luther, of which I have seen the original, in my opinion is a signed work by Lucas Cranach the Elder, dated 1525. M.J. Friedländer, Amsterdam, 3.7.53.' (Marijnissen, R.H., personal communication, 7 June 1995).

⁶⁰ Klein 1998, 114.

⁶¹ Cf. Cadorin, Veillon 1976, 443; Klein 1994 A, 194-200.

⁶² Cadorin, Veillon 1976, 443.

⁶³ Koller 1984, 287.

⁶⁴ Klein 1998, 114.

⁶⁵ In Antwerp, frames were also made of beech wood. For altar panels or other large works, the panel makers never used beech wood, only oak (Wadum 1998, 160).

⁶⁶ The boards of the 100 panels examined so far can be attributed to a small number of trees (Klein 1999, 33).

⁶⁷ Klein 1994 B, 210.

⁶⁸ Klein 1994 A, 197; Klein 1999, 32.

⁶⁹ Bünsche 1995, 56.

⁷⁰ So far, no examination has been carried out on portraits FR 143, 143 B (about 1520/21), for which Koepplin, Falk 1976, 687, No. 606 name beech as support. The details given by Schütz, 1972, 17, Cadorin, Veillon 1976, 443; Friedländer, Rosenberg 1978, 88; Koller 1984, 287; Ritschel 1996, 14 and Schütz 2000, 123, regarding FR 1, 10, 18 and 97 are incorrect. Ritschel's data on FR 18 refers only to the new support.

⁷¹ Hoffmann 1992, 25-27, fig.7.

⁷² FR 145, 146, 155 et al.

⁷³ Klein 1994 A, 197-199.

⁷⁴ Private collection; Ost 1993, 131-140 (see p. 282). Further works painted onto beech in the Cranach workshop later on: FR 424 (1544); *The Agony in the Garden* (1546), Bünsche 1995, 55 and *The Sermon by John the Baptist* (1549), Jacobi 1986, 854.

⁷⁵ Klein 1998, 113; Cf. Grimm, Konrad 1990, 176.

⁷⁶ *The Saviour*, private collection; *Duchess with Child*, dated 1535, Weimar, Kunstsammlungen, Inv.-No. G 1028a; *Portrait of a Boy in a Red Cloak* (dated 1526), Duchov Palace, cf. Restauratorengruppe r64 1965.

⁷⁷ Cadorin, Veillon 1976, 443; Klein, 1994 A, B; Klein 1998, Klein 1999.

⁷⁸ For example, in describing the panel showing the *Martyrdom*

of *St Catherine* (FR 11), the catalogue accompanying the exhibition *Kunst der Reformationszeit* (Staatliche Museen zu Berlin 1983, 77) mentions 'three boards joined vertically'. In contrast to this, Grimm, Erichsen and Brockhoff (1994, 299) identify it as a 'Wood panel consisting of two vertical boards'.

In fact, there is no doubt that the panel consists of four boards joined vertically.

⁷⁹ Friedländer, Rosenberg 1978, 15-17.

⁸⁰ Koepplin (Koepplin, Falk 1974, 116, 120).

⁸¹ Schade 1974, 15.

⁸² Koepplin (Koepplin, Falk 1974, 19); Schade 1974, 15.

⁸³ The term centre board is used according to Nutsch 1980, 65 where a distinction is made between side, centre and core boards.

⁸⁴ The term tow (*werg*) is used here as a technical term to describe fibrous materials (cf. Grimm 1960, 312-320), which could be vegetable fibres (flax, hemp etc.) but also animal products (silk fibres, hair etc.).

⁸⁵ According to Greber, the name *Schrobhobel* or *Schropphobel* is known at least since the eighteenth century. Depending on the area, it was also named *Schuepf*-, *Schärf*-, *Scharp*-, *Scharf*-, *Schürf*-, *Schrot*-, *Schripf*-, *Schripp*-, *Schrubbel*- and *Schrubbhobel*. A *Schropphobel* from among the tool collection of the Elector August of Saxony is known to have been dated 1570. It was used for the first smoothing of rough surfaces. Its base is flat and the iron of the blade is rounded (Greber 1956, 178, 204, 384-385).

⁸⁶ Cf. Koller 1999, 39.

⁸⁷ Koepplin (Koepplin, Falk 1974, 120).

⁸⁸ Cf. Bartl, Gärtner 1997; Goldberg, Heimberg, Schawe 1998.

⁸⁹ Koepplin (Koepplin, Falk 1974, 116).

⁹⁰ Schade 1974, 19-20.

⁹¹ Cf. Schawe 1998, 160.

⁹² According to Hutter 1972, 39.

⁹³ Koepplin, Falk 1974, 181.

⁹⁴ Before 1510, boards of more than 20 cm in width are the exception.

⁹⁵ Except for FR 17 and FR 64A.

⁹⁶ Cf. Straub 1984, 135-136.

⁹⁷ FR 12-16, 18-22, 25, 29, 32, 34, 36, 37, 39, 44, 59.

⁹⁸ Given the almost identical width of the boards, the assumption that the portrait of the boy was painted subsequently to an already existing portrait of the father could not be confirmed. *The National Gallery Report April 1991-March 1992*, London 1992, 16.

⁹⁹ A shortage of wood in the sixteenth century was reflected in modified building regulations, demanding a more sparing use of the material (Wiegmann, H., personal communication); cf. also Hellwag 1924, 298.

¹⁰⁰ For example the central panel of the *Erection of the Cross* by Peter Paul Rubens in Antwerp Cathedral (460 x 340 cm) was made of boards glued in the direction of the shorter dimension of the support because at the time the maximum available

length of boards amounted to approximately 12 Antwerp feet (28.68 cm), i.e. approximately 340 cm (Verougstraete-Marcq, Schoute 1989, 78).

¹⁰¹ Cf. Heydenreich 1998 A; Raft, Koller 1999, 25-28.

¹⁰² Theophilus (*Ilg* 1874, I, XVII).

¹⁰³ Cf. illustration of a *Schraubenwinde* (fig. 13) in *Schauplatz der Künste und Handwerke* 1765, 72.

¹⁰⁴ Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister, Inv.-No.1869.

¹⁰⁵ Halle 1764, 56 'The glue clamp consists of two strong boards one of which has two vertical pins and into which the other board, drilled with two holes, can be lowered. If one wants to glue together two boards at the edges, one has to put them between two of those glue clamps and, because they never fill exactly the space in such a glue clamp, one has to drive in between boards and clamp a few slanting wedges which press closely together the narrow edges of the glued boards.' Cf. Roubo 1769, pt.1, pl.18. Presumably at the beginning of the sixteenth century, a glue clamp with wooden screws was also known. Cf. Hellwag 1924, 438, 465; Verougstraete-Marcq, Schoute 1989, 30.

¹⁰⁶ There are a few examples in southern German, Austrian and Venetian panel painting, but even in those regions this method is rare. In northern German panel painting, this technique is widespread before 1400. Albrecht, U., personal communication. Cf. also Koller 1984, 283-284; Bartl, Gärtner 1997.

¹⁰⁷ The painting was transferred from wood onto canvas and is in poor condition.

¹⁰⁸ Koepplin assumes that this little altarpiece was made outside the Wittenberg workshop (Koepplin, Falk 1974, 32). Erichsen proposes that it was a diplomatic gift (*Grimm, Erichsen, Brockhoff* 1994, 151) and Schnackenburg, Grimm (*Grimm, Erichsen, Brockhoff* 1994, 315) as well as Schneckenburger-Broschek 1997, 53-58, suggest that it is the first preserved commission from another court.

¹⁰⁹ Cf. Straub 1984, 149-150; Verougstraete-Marcq, Schoute 1989, 67-69.

¹¹⁰ Fenyö 1955, 68-71.

¹¹¹ Friedländer, Rosenberg 1978, 68, No.11.

¹¹² Schade 1974, 37.

¹¹³ Grimm (*Grimm, Erichsen, Brockhoff* 1994, 299-301).

¹¹⁴ Their position was carefully marked with score lines. Score lines are also all round the edge to mark the notches for fixing the panel in a rebate frame.

¹¹⁵ Up to now, canvas glued over joins had only been identified on the following panels: FR 38A, 47A, 91, 143, 143B, *Christ Falling on the Way to the Cross*, Berlin SMBPK, Gemäldegalerie, 564B; *Altarpiece of the Virgin* (1518), Brandenburg, Cathedral. There is evidence of dovetailed cross-battens with a few panels in the Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister, Dresden (FR 71, 91, 96A et al.), but their authenticity has not been proved (Schlegel, A., personal communication).

¹¹⁶ In 1536, the transport by cart between Wittenberg and Torgau (c.50 km) cost between 12 and 18 *groschen*. At the same time, Cranach prices a wooden support complete with case at 16 *groschen* (app. II, 205, 222-224, 237, 280).

¹¹⁷ Cf. chapter V, p. 317.

¹¹⁸ Cf. Bartl, Gärtner 1997, 44, 226, 432, 435, 557; Goldberg, Heimberg, Schawe 1998.

¹¹⁹ Erichsen 1994 A, 157, 164; cf. Restellini 2001, 28.

¹²⁰ Depending on the size of the support, there are also thicker and thinner panels, e.g. FR 68: 0.3 cm; FR 189D: 0.2 cm; *Altarpiece of the Virgin*, Aschersleben 1.9 cm; FR 379: 2 cm. In comparison, the thickness of the boards of coniferous woods varies between 1.3 and 2 cm.

¹²¹ FR 132, *Crucifixion*, Mahlis, Evangelische Kirche et al.

¹²² The widths of the lime panels usually vary between 5 and 25 cm; widths of more than 30 cm were rarely used. Comparing this with coniferous wood panels, more regular widths of between 10 and 25 cm were used. They are almost identical in FR 77, 78, 79.

¹²³ Bartl made similar observations on Franconian supports from the same period (Bartl 1998, 307-308).

¹²⁴ Schade, Schuttwulf 1994, 17, 216.

¹²⁵ This panel belonged to the Cathedral of Wrocław (Breslau), but before 1950 it was replaced by a copy (cf. Stankiewicz 1965). The original was offered to several museums and it appeared on the London art market in 1972, confirmed by an X-radiograph discovered by the author. The present location is unknown (cf. Kretschmann 2001, 39-56).

¹²⁶ While Friedländer, Rosenberg 1978 describe this version as the earliest (c.1510/12), Schade 1974, 459 places the Warsaw panel at around 1510. The *Crucifixion* (FR 92) was most probably painted after 1510 (cf. Brinkmann, Kemperdick 2005, 181-187).

¹²⁷ Besançon, Musée des Beaux-Arts et d'Archéologie, Inv. - No. 896.1.54, not mentioned by Friedländer, Rosenberg 1978.

¹²⁸ FR 303, 409B (cf. Pause, N., Welther-Fischer, S., examination report, unpublished), *Crucifixion*, Dessau, St. Marien; Cranach the Younger: *Colditz Altarpiece* (1584) et al.

¹²⁹ Cf. Verougstraete-Marcq, Schoute 1989, 37-38.

¹³⁰ Cf. Löcher, Gries 1997, 126-128.

¹³¹ The boards are between 26 and 32 cm wide, thickness 2.3 to 2.8 cm. The back was smoothed by jack plane, the iron of which left hollowed scoring up to 2.3 cm in width.

¹³² FR 381H (Eble, A.B., personal communication). Bartl described a 'thin dark concealment of the joins' on FR 398A which could possibly be paper or parchment. Bartl, Gärtner 1997, 154. Cf. also chapter IV.

¹³³ FR 38A, 47A, 91, 143, 143B, *Christ Falling on the Way to the Cross*, Berlin SMBPK, Gemäldegalerie, 564B; *Altarpiece of the Virgin* (1518), Brandenburg, Cathedral.

¹³⁴ Erichsen 1994 A, 164; Scheidig 1953, 160.

¹³⁵ FR 1, 2, 3.

¹³⁶ An exception are possibly the panels with Adam and Eve

(c.1508/10), Besançon, Musée des Beaux-Arts et d'Archéologie, Inv.-No. 896.1.54, not mentioned by Friedländer, Rosenberg 1978.

¹³⁷ Knowledge of the direction in which the boards were joined and the presence of a strip of tow in the upper third leads to the conclusion that this panel was originally an upright format and which was cut by at least 22 cm along the lower edge.

¹³⁸ FR 48, 74A (the mention in Bartl 1997, 130 'along the joins' is not correct), 84, 85, 87, 105, 112, 112A, 115, 119, 119A, 120, 132, 185, 241, *Posterstein Crucifixion*, Gera, *Altarpiece of the Virgin*, Kade et al.

¹³⁹ Helland 1965, 8. Cf. Großmann 1998, Cranachhof Markt 4, fig. 89, 90.

¹⁴⁰ FR 105, 141, 206, 214A, Bünsche 1995, 57 et al.

¹⁴¹ Similar applications of tow on the back, as preserved among others on panels by Altdorfer, Burgkmair and Wertinger, remind us more of the function of cross-battens. Cf. Sandner, Ritschel 1994, 189; Bartl, Gärtner 1997, 27, 118, 551.

¹⁴² Koller 1984, 284; Koller 1999, 42.

¹⁴³ Bartl, Gärtner 1997, 349, 355, 554.

¹⁴⁴ Cf. Wadum 1998, 157.

¹⁴⁵ Oellermann, E., personal communication; Bartl 1998, 308.

¹⁴⁶ Madrid, Prado, Cat.-No. 2179. On other works by Dürer where the boards run vertically, strips of tow cover the upper and lower area near the edges. Perhaps here they were to avoid marks of drying cracks starting at the shorter edges of the boards? Cf. Goldberg, Heimberg, Schawe 1998, 388.

¹⁴⁷ Helland 1965, 8 and Skaug, E., personal communication 13 September 1998.

¹⁴⁸ Cadorin, Veillon 1976, 443.

¹⁴⁹ Hoffmann 1992, 35.

¹⁵⁰ Sandner, Ritschel 1994, 189.

¹⁵¹ Bünsche 1995, 59 and Bünsche, B., personal communication 24 February 1996.

¹⁵² I am grateful to Felicitas Weiße for this analysis.

¹⁵³ The use of vegetable fibres (flax and hemp) was common practice in Spain (Hodge, Spring, Marchant 1998, 74).

¹⁵⁴ 'Item nym die tafel oder das pild oder was du synst von holcz vergülden wilt und lueg ob es nest hab, oder pech clumsen, die schrot her auß und leym ander holcz hin ein...' *Liber illuministarum* fol. 100r, Munich, Bayerische Staatsbibliothek, Cgm 821, c. mid-fifteenth century up to 1512, text according to Bartl 1998, 306, cf. Huth 1923, 55; Straub 1984, 138.

¹⁵⁵ FR 64D, 285, 379 et al.

¹⁵⁶ FR 38A, 47A et al.

¹⁵⁷ FR 64B, 77, 84, 112, 141, 241 et al.

¹⁵⁸ This observation makes a rather unconvincing hypothesis put forward by Tacke even more questionable: he proposes that this work was carried out in 1520 in the Cranach workshop, by the Master of the Pope Gregory Masses, and that another pupil added the portrait of the Bishop at the customer's venue (Tacke 1992, 42-44); cf. also Erichsen (*Grimm*,

Erichsen, Brockhoff 1994, 329-330). Further technical examination may perhaps help to determine more precisely where this panel was made and also shed light on the connection with the wing paintings, today in a different collection (Eichstätt, Bischöflicher Stuhl) showing the Saints Roch and Sebastian.

¹⁵⁹ FR 145, 149, 160 et al.

¹⁶⁰ In comparison with the panels dating from 1506 to 1510/11 the practice of joining in cross direction here can be explained by the more economical use of the usually wider boards.

¹⁶¹ FR 89A, 129, 141 et al.

¹⁶² FR 184, 179, 182C et al.

¹⁶³ Lücke 1998, 19-20. Cf. chapter V.

¹⁶⁴ Michaelis 1989/90, 130; Friedländer, Rosenberg 1978, on the other hand, date the work to c.1520.

Frames

¹ App. II, 243.

² Cf. Schmidt 1954; Löcher 1985 B; Mitchell, Roberts 1996, 8-10.

³ Cf. Dülberg 1990, 20-21.

⁴ Cf. Heyck 1908, 10, fig. 5.

⁵ Giebe, Schölzel 1996, 65.

⁶ Unpublished photograph from a private collection in Berlin.

⁷ FR 19, 23, 47A, 64D, 77, 95, 148, 176, 177, 187, 188, 312B, 313B, 312D, 313D, *Adam and Eve*, Leipzig, Museum der bildenden Künste, Inv.-No. 1269; *Elector Johann Friedrich I the Magnanimous and His Wife Sibylle* (1535), Gotha, Schlossmuseum, Inv.-No. 52/13, 52/12; *Elector Friedrich III the Wise and Elector Johann the Steadfast* (1532), Bildarchiv, Foto Marburg, Neg.-No. 145709, 145710; *Crucifixion*, Mahlis, Evangelische Kirche.

⁸ FR 187, 188, 189D (reconstruction possible on the basis of examination) and Hamburg, private collection.

⁹ FR 10, 11 et al.

¹⁰ Cf. Mitchell, Roberts 1996, 90-91.

¹¹ On the *Kemberg Altarpiece* (1565) from Lucas Cranach the Younger's workshop, wooden nails were inserted laterally into the sides of the mouldings.

¹² The diptych with St Jerome and St Leopold is a notable exception (FR 68). The panels were provided with a bevel on the front side.

¹³ Cf. Schmidt 1954, 6-7.

¹⁴ FR 47A, 64D.

¹⁵ FR 47A

¹⁶ In a letter to Dieter Koepplin dated 19 July 1973, F. Lahusen emphasises that in the course of the restoration of the frame (1971-72), it was revealed that it certainly originated from the time that the painting was produced and that it was reworked at a later date. The new gilding and polychromy covering the whole surface did not allow us to check if the frame's material was the original one.

¹⁷ Mieth, Koch, Günther, Fritsche, unpublished examination

report 1992.

¹⁸ FR 19, 176, 177, 312B, 313B.

¹⁹ Possibly as a result of similar experiences, Dürer gave different instructions for the *Heller Altarpiece*: 'And it would be good if you had the hinges screwed on so that the painting does not vibrate'. (*Und es were gar gut, das ihr die bandt ufschrauben liest, uf das sichs gemäl nit erschellete.*) Decker 1996, 114.

²⁰ '2 gr idem für vier stifte, damit man die tafel, daran das Jüngst Gericht gemalt, hat angeschlagen. 6 pf idem für 1 schlüssel zu derselben tafel, 6 pf vor ein riegel dazu.' ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. 288a Nr 1u, fol. 120r; text after Scheidig 1972, 302. Scheidig's assumption that it might be FR 99 is rightly questioned by Michaelis 1989/90, 130.

²¹ FR 19, 23, 47A, 64D, 95, 148, 176, 177, *Adam and Eve*, Leipzig, Museum der bildenden Künste, Inv.-No. 1269 and *Crucifixion*, Mahlis, Evangelische Kirche.

²² Grimm 1978, 52 describes this shape as a Tyrolean type of frame. Comparable examples are also preserved from different regions. Cf. Sandner 1993, 226.

²³ Cf. Rosenberg 1960, Nos 29, 30, 31, 32; Tacke 1994, 53, 60-61. The drawings do not always differentiate between scotia and ogee moulding.

²⁴ FR 312B, 313B, 312D, 313D, *Elector Johann Friedrich I the Magnanimous and His Wife Sibylle* (1535), Gotha, Schlossmuseum, Inv.-No. 52/13, 52/12; *Elector Friedrich III the Wise and Elector Johann the Steadfast* (1532), Bildarchiv, Foto Marburg, Neg.-No. 145709, 145710.

²⁵ Wittenberg, Lutherhalle (FR 77).

²⁶ FR 77, 88 and the *Posterstein Crucifixion*. According to information kindly supplied by Angela Möller, Dresden, the present frame of the *Posterstein Crucifixion* is a copy. However, the original frame of the same profile and adorned with rosettes is shown by Degen 1953, 195, fig. 3 (the condition in 1870).

²⁷ Cf. the depiction of the Virgin on the painting *Cardinal Albrecht as St Jerome* (FR 186), the *Altarpiece of the Virgin* (1518) in Brandenburg Cathedral and the *Crucifixion* (c.1523) in Dessau. The *cassetta* frame illustrated by Grimm 'of a picture from the Cranach workshop, c.1540. Munich Pfefflerle' (Grimm 1978, 53) is a copy after a frame, dated presumably 1565, although the place where it is kept has not yet been established. (Cf. also the frame of the retable in the Johann-Friedrich-Danneil Museum in Salzwedel). The frame of the *Golden Age* (FR 261) is also a copy of this more recent model, carried out in the twentieth century by the Pfefflerle Framing Workshop. I am indebted to Mr Pfefflerle and Bruno Heimberg, Munich for this information.

²⁸ FR 88 (Photograph in Witt Library, London), *Posterstein Crucifixion*, Gera, Kunstgalerie (Degen 1953, 195, fig. 3).

²⁹ Cf. Dülberg 1990, 95, 274.

³⁰ Cf. Decker 1996, 46-49.

³¹ The verso of this panel has precisely chiselled notches at the outer edges for fixing the panel in a rebated frame.

Also marked with fine incisions and therefore probably made at the same time, the panel was provided with dovetailed battens that, like the engaged frame, counteracted warping.

³² Cf. the woodcut *The Death of John the Apostle*, Sheet 3 of the edition of the book dating from c.1512 *The Martyrdoms of the Twelve Holy Apostles* (*Die Martyrien der heiligen zwölf Apostel*). Strehle, Kunz 1998, 115, fig. 61. Cf. also Rosenberg 1960, Nos 29, 30, 31, 32; Tacke 1994, 53, 60-61.

³³ Cf. Koepplin, Falk 1976, 493-494. Several woodcuts also show this form of frame. The assertion that the frame of the *Virgin and Child* (c.1525, FR 160) could be an appropriate example (Heydenreich 1998 A, 199, Footnote 105) was not confirmed by analysis of the ground material, i.e. calcium sulphate; until now there has been no evidence found that this material was used in the Cranach workshop. The Castle Inventory of 1610 alludes to epitaphs apparently corresponding to the aedicular design 'with gilded columns and crest' (*mit verguldeten röhren und gesprenge*) by Lucas Cranach the Elder in the Schloßkapelle at Torgau (Findeisen, Magirius 1976, 195). In 1520, Lucas Cranach received 1 *schock* 6½ *groschen* for the *Lucrecia mit dem welsn geheuß auf 3 kleinen teflein* (app. II, 95). Whether this refers to the interior design or small aedicular frames remains unresolved.

³⁴ Distel 1889, 156-157.

³⁵ Schade 1974, 55, 385.

³⁶ Löcher 1985 A, 75.

³⁷ Cf. Straub 1984, 143-146; Bomford et al. 1989/90, 20-26.

³⁸ What is presumed to be the original inscription on the frame of the *Crucifixion* in Mahlis *MORTE MIHI VITAM MORTVA VITA DEDIT* is preserved as an overpainting.

³⁹ Cf. Verougstraete-Marcq, Schoute 1989, 62-67.

⁴⁰ Schmidt 1954, 201.

⁴¹ '2 fl 3 gr idem von 15 rhamen anzustreichen ufm sal und frauenszimmer, darauf die fursten sind gekontrafet, blaw, schwarz und mit rößlein an der seiten von iglichen 3 gr.' (app. II, 239); '1 fl vor die 11 ramen mit zinnober anzustreichen.' (app. II, 276).

⁴² *Crucifixion* (c.1523), Dessau, St. Johanniskirche, cf. Mieth 1993, 35 and *Altarpiece of the Virgin* (1518), Brandenburg, Cathedral.

⁴³ This is the result of the great difficulty of proving the original correlations. Cf. Mitchell, Roberts, 1996, 90.

⁴⁴ '13 gr tischerarbeit von 4 ramen zu den conterfectbilderen einzufassen gemacht.' (app. II, 243); '2 fl 3 gr idem von 15 rhamen anzustreichen ufm sal und frauenszimmer, darauf die fursten sind gekontrafet...' (app. II, 239).

⁴⁵ The panel depicting the *Agony in the Garden* (1546) reveals ground up to the edges of the panel. Cf. Bünsche 1995, 58. On the double portrait of Martin Luther and Katharina von Bora (1526, FR 189D, 190D) the ground close to the outer edges has been removed prior to separate mouldings being glued on.

⁴⁶ FR 146, 312B, 313B, 338A, 348, a portrait of Martin Luther (1534, Swiss private collection) et al.

⁴⁷ FR 9, 10, 16, 18, 30, 48, 58, 92, 132B, 285D, 314D et al.

⁴⁸ FR 11, 14, 18, 20, 21, 74A, 86, 122, 168, 191 et al.

⁴⁹ FR 314D, *Elector Friedrich III* and *Elector Johann the Steadfast* (1532), Weimar, Kunstsammlungen; *Elector Johann the Steadfast*, Schloss Gottorf (Bünsche 1998 B, 28-29 et al.).

⁵⁰ Bartl, Gärtner 1997, 27, 194, 529, 557.

⁵¹ A parallel could be drawn with the black subdivisions in the panel of *The Ten Commandments* (FR 77) or the black borders of Cranach's woodcuts. Cf. also chapter III, p. 251.

⁵² A paint sample taken from the edge has as yet not clarified whether this is an original border line or a later addition on this panel. However, there are similar phenomena on several other panels of different provenance.

⁵³ Boston, Museum of Fine Arts, cf. Wetering 1986, 13.

⁵⁴ As yet there is lack of similar observations for comparison to allow assessment of how widespread this practice was at the time. Cranach was not the only one using this technique as document the shutters from the *Altarpiece of the Holy Kinship* of the Pfarrkirche St. Stephan in Mindelheim, executed by Bernhard Strigel and now in the Germanisches Nationalmuseum Nuremberg. With the planks joined vertically there is a barb both top and bottom. On the sides, however, the ground has been applied as far as the edge of the panel (Bartl, Gärtner 1997, 491). The same phenomenon can be observed on the *Sigismund Baldinger* (1545) by Georg Pencz, Kassel, Staatliche Museen, (Brammer, H., personal communication). Other examples are given by Verougstraete-Marcq, Schoute 1989, 52-53 and Wadum 1998, 160.

⁵⁵ Appropriate results exist for the paintings in New York, The Metropolitan Museum of Art (Inv.-No. 46.179.1, 46.179.2) and Weimar, Kunstsammlungen (Inv.-No. G 7, G 8). I owe the results from the paintings in New York and the discussion of this phenomenon to the examinations undertaken by Maryan W. Ainsworth and Daantje Meuwissen.

⁵⁶ The shape of these remains unclear. It is conceivable that they were simple, small hooks with a pointed and a flat, rounded end, which were hammered into another and larger auxiliary wooden support.

⁵⁷ Cf. Bayerisches Landesamt für Denkmalpflege 1978, 35-36 and Decker 1996, 33-34.

The preparatory layers: ground, isolation and *imprimatura*

¹ There is no layer of ground on the portrait of Hieronymus Tedenhamer, a copy after Cranach the Elder (Vienna, Kunsthistorisches Museum). Cf. Koepplin, Falk 1974, 184.

² FR 30, 59, 150, 184 et al.

³ FR 4, 107, 132 et al.

⁴ There is a grey ground at the left edge of the *Virgin and Child with Saints* (1516, FR 85), indicating a later addition, and a ground containing lead white on the *Crucifixion* (Sold in Vienna, Dorotheum, October 1996, lot 175), suggesting that it was

produced outside the Cranach workshop.

⁵ FR 65, 85.

⁶ Cf. Campbell, Foister, Roy 1997 B, 21-22; Burmester and Krekel have made similar observations about works by Dürer (Burmester, Krekel 1998 A, 60-61). Cf. also the instruction to burn chalk in the *Liber illuministarum*, (Berger 1912, 200) and the results of the examination into the production of '*bianco sangioanni*' (Zanardi, Arcangeli, Appolonia 1985).

⁷ Cf. chapter II, p. 133.

⁸ Cf. chapter II, p. 229; Heydenreich 2007.

⁹ Whilst most samples of ground have not revealed any series of layers, it is possible to clearly differentiate three to four layers on FR 47A and FR 65.

¹⁰ Sandner and Ritschel presume that grounded panels were kept in reserve and that a network of cracks had formed before work began on them (Sandner, Ritschel 1994, 189).

¹¹ The notion that it was applied with a spatula, such as asserted by Giebe and Schölzel, would support this explanation (Giebe, Schölzel 1996, 65).

¹² Their function differed from marking the actual surface of the picture, which was carried out on some panels before or after the ground had been applied. Such incised lines could also come about in the course of smoothing the ground of the frame, possibly unintentionally.

¹³ *Liber illuministarum*, Munich, Bayerische Staatsbibliothek Cgm 821, c. mid-fifteenth century until 1512 (Berger 1912, 201).

¹⁴ FR 2, 3, 26, 89, *St Francis Receiving the Stigmata* (after 1515), Nuremberg, Germanisches Nationalmuseum; *Altarpiece of the Virgin* (1518), Brandenburg, Cathedral.

¹⁵ Cf. Scherer 1998, 6.

¹⁶ Carved foliage on ground was used rarely to decorate frames, e.g. on the *Crucifixion* (c.1523), Dessau, St. Johanniskirche (cf. Mieth 1993, 35) and the *Altarpiece of the Virgin* (1518), Brandenburg. Cf. chapter II, p. 84.

¹⁷ Cf. Straub 1984, 168-170.

¹⁸ The *in situ* examination of this panel in the St. Michaeliskirche in Zeitz, did not yield any explanation as to whether the rays might also have been partially modelled in the ground.

¹⁹ Geldorf, Weerd, Heeren, unpublished analysis report 6/2000.

²⁰ The ground was applied without the panel being in a frame and was subsequently smoothed very little. Cf. Heydenreich 1997, 2000.

²¹ Since the Middle Ages, red lead in oil had been regarded not only as a usual ground for stone and wooden carvings but also for furniture or timber associated with building, e.g. roof braces or doors that were exposed to the weather. Cf. Freitag, Koller, Baumer 1995, 275; Huth 1923, 56-57.

²² Cf. Campbell, Foister, Roy 1997 A, 101; De Mayerne 1620 (Berger 1901, 273); Hout 1998, 200; Howard 2003, 128-129.

²³ Bonsdorf 1992, 59. Pink fillings and adhesives made of red lead, lead white and calcium carbonate, respectively, were

also in use for the manufacture and application of relief brocade sheets. A carrier layer made of lead white and red lead was identified on works by Michael Pacher (Koller, Wibiral 1981, 141, 191). In the *Presentation in the Temple* (NG 706) by the Master of the Life of the Virgin, the sheets were attached to the ground using a pink adhesive consisting of chalk with some red lead bound in oil (Campbell, Foister, Roy 1997 B, 33). Further examples from the Multscher workshop and from the southern Swabian, Swiss and Austrian region are given by Krebs 1997, 200-201, 208.

²⁴ Os et al. 1978, 68; Straub 1984, 156, 158; Freitag, Koller, Baumer 1995, 275-276; Strohhammer 1994, 12-15; Scharff 2000, 47-52.

²⁵ A Tyrolean altar retable (1515), Burmester, Koller 1994, 40; Wolf Huber's *Christ Taking Leave of His Mother* (c.1519), Campbell, Foister, Roy 1997 A, 101; Hans Baldung *Portrait of a 29-Year-Old Man* (1526), Bartl, Gärtner 1997, 55. I especially thank Franz Mairinger, Vienna for the chance to view his results of the examination of Austrian panel paintings.

²⁶ Goldberg, Heimberg, Schawe 1998, 237-239 and Burmester, A., personal communication.

²⁷ In 1499 and in 1500, Albrecht Dürer painted Hans, Felicitas, Niclas and Elsbeth Tucher (Weimar, Kunstsammlungen and Kassel, Staatliche Museen, Gemäldegalerie Alte Meister) as well as a *Portrait of a Young Man* (Munich, Bayerische Staatsgemäldesammlungen, Alte Pinakothek; cf. Goldberg, Heimberg, Schawe 1998, 358) on a ground containing high proportions of lead white, indicating a further variation of grounds at that period.

²⁸ Berger 1912, 197.

²⁹ The attempt to determine its constituent parts by means of FTIR-imaging technique and PCA (Principal Component Analysis), however, was unsuccessful, although it was possible to detect linseed oil isolation on different works by Dürer. (Baumer, Fiedler, Koller 1998, 102-119).

³⁰ Riemann 1980, 118; Bünsche 1995, 58; Giebe, Schölzel 1996, 71.

³¹ Dürer to Jakob Heller on 24 August 1508 (*Rupprich* 1956, 66).

³² Filarete (*Berger* 1901, 8).

³³ Vinci (*Richter* 1970, I, no. 628).

³⁴ Vasari (*Brown* 1960, 230-231); cf. Koller 1984, 304.

³⁵ Armenini 1587, 224.

³⁶ Mander 1617 B, fol. 216V13-19.

³⁷ According to Van Hout, in historic sources the *primuersel* can denote the ground layer as well as the isolation layer on top (Hout 1998, 200-202).

³⁸ Whereas Straub 1984, 168, rules out the use of the term if applied locally, Koller 1984, 351 and Wetering 1997, 211-215, describe even partial colouring of the ground as *imprimatura*. Hout 1998, 200, analysed different contemporary descriptions and adopts the view that the *imprimatura* covers the surface of the painting completely. This definition, however, also

includes all areas with applications of leaf metal.

³⁹ Cf. Wadum 1995, 39-40; Levy-van Halm 1996.

⁴⁰ Cf. Dunkerton, Spring 1998, 120-121.

⁴¹ Harnisch 1989, 10; Verougstraete-Marcq 1987; Straub 1984, 167.

⁴² Goldberg, Heimberg, Schawe 1998, 289.

⁴³ Périer-d'Ieteren 1994, 74.

⁴⁴ Dunkerton, Spring 1998, 124.

⁴⁵ Dunkerton, Spring 1998, 126.

⁴⁶ To date no corresponding example of a grey *imprimatura* has been found in the confirmed oeuvre, such as shown to exist on FR 281 by Mairinger (Mairinger, F., *Bericht über die naturwissenschaftliche und maltechnische Untersuchung eines Gemäldes: „Kreuzigung“*, bezeichnet L. Cranach d.Ä. (U 681) of 4 June 1996, unpublished).

⁴⁷ Vienna, Kunsthistorisches Museum: Bernhard Strigel *Emperor Maximilian I with His Family* (1516), Inv.-No. 832; Wolf Traut, *Portrait of a Man* (c.1515), Inv.-No. 6992; Hans Baldung Grien, *Portrait of a Man*, Cat.-No. 26; Hans von Kulmbach, *Coronation of the Virgin* (1514), Inv.-No. 2656 et al.

⁴⁸ Vasari (*Brown* 1960, 231).

⁴⁹ FR 341, *Colditz Altarpiece* (1584).

⁵⁰ Gronau 1972, I, 105-106.

⁵¹ Sandner, Ritschel 1994, 189.

⁵² Sandner, Ritschel 1994, 189; Giebe, Schölzel 1996, 66-67.

⁵³ Further examples are FR 11, 20, 31, 41, 78, 112A, 132, 341 et al.

⁵⁴ It could not be clarified whether, in addition to the artist's intentions, the obviously lower price of red lead by comparison with lead white might have favoured the choice of this pigment. According to investigations by Boon, van der Weerd and Keune, red lead may be formed in lead white oil paint layers due to chemical changes. This process may also have influenced the colour of the reddish *imprimatura* (Presentation at a joint meeting of ICOM-CC Working Groups Paintings 1&2 and The UKIC, British Museum, London, 10-11 September 2001).

⁵⁵ On the panel depicting St Stephen, King of Hungary (c.1511), after application of the *imprimatura* vertical traces of running paint have formed in the region of the upper left corner; these lead to the conclusion that the panel was set up vertically and that the paint applied was of a fairly liquid consistence.

⁵⁶ Cf. Sandner et al. 1998, 134.

⁵⁷ Berlin, SMBPK, Kupferstichkabinett – Sammlung der Zeichnungen und Druckgraphik, KdZ 4450, 4451.

⁵⁸ Gronau 1972, I, 67; Giebe, Schölzel 1996, 71.

⁵⁹ Harnisch 1989, 10.

⁶⁰ Hout 1998, 205; Campbell 1998, 73.

⁶¹ Sonnenburg 1983, 50.

⁶² Bartl 1999, 26-31.

⁶³ Küffner, M., personal communication.

- ⁶⁴ Bartl, Gärtner 1998, 520.
- ⁶⁵ Bosshard 1993, 326. In 1508, Dürer wrote to Jakob Heller that he had '...*das corpus...mit 2 gar guten farben vnderstrichen, das ich daran anfache zu vndermalen...*' (Rupprich 1956, 66; cf. Heimberg 1998, 35).
- ⁶⁶ London, Royal Collection (Pimberton-Pigott, V., personal communication).
- ⁶⁷ Richter 1992, 18.
- ⁶⁸ Bartl, Gärtner 1998, 91, 95, 100, 103.
- ⁶⁹ Bartl, Gärtner 1998, 498.
- ⁷⁰ Jones 1995, 231-240.
- ⁷¹ Campbell, Foister, Roy 1997 B, 24.
- ⁷² Koller 1984, 305.
- ⁷³ Dunkerton, Spring 1998, 127.
- ⁷⁴ Armenini 1587, 124-126 (Berger 1911, 56).
- ⁷⁵ Mander 1617 B, fol. 216V13-19.
- ⁷⁶ Cf. Wadum 1998, 168.
- ⁷⁷ Brachert 1972, 166; Koller, Wibiral 1981, 188-189; Krebs 1997, 201-202.
- ⁷⁸ Popp 1983, 115-117; Tångeberg 1989, 63; Krebs 1997, 194-202.
- ⁷⁹ Koller 1984, 305-306.
- ⁸⁰ Hans Döring used a reddish *imprimatura* on his *Lucretia* (1514) but not on the *Graf Philipp von Solms* (1520).

Practices of underdrawing

- ¹ Sandner, Ritschel 1994; Sandner 1994, 1995; Sandner et al. 1998.
- ² Sandner 1998 A, 51-52.
- ³ Sandner 1998 A, 59.
- ⁴ The identification of the materials presents a particular problem because the drawing is located beneath layers of paint and consequently it is difficult to gain access to it for the purpose of analytical examination (Bomford 2002, 26-37).
- ⁵ Schade 1974, 49.
- ⁶ Gronau 1972, I, 74.
- ⁷ Sandner 1998 A, 57.
- ⁸ On dry drawing materials see also Bomford 2002, 26-37 and Siejek 2004, 36-75.
- ⁹ FR 329, 341, 264 (Gronau 1972, I, 74), FR 246 (Schade 1974, 49), *Portrait of a Young Lady*, Nuremberg (Heydenreich 1997, 2000).
- ¹⁰ *Colditz Altarpiece* (1584).
- ¹¹ FR 311A, 312A, 313A, 316, cf. Sandner et al. 1998, 130-139.
- ¹² FR 89 (Schaefer, Saint-George 2003, 25-26).
- ¹³ The colouring material is red iron oxide which occurs naturally (haematite) in a clay-like matrix. Agricola also describes an artificial substitute that has been processed from ochre (Agricola 1546, 63).
- ¹⁴ FR 162A (Brinkmann, Kemperdick 2005, 173-174), FR 219 (Barkowsky 1980, 54), FR 263, 336 (Grimm, Grimm, Erichsen, Brockhoff 1994, 357), FR 405, *Cupid Complaining to Venus*, London, National Gallery (Campbell, Foister, Roy 1997 B, 29), FR 287, *The Agony in the Garden* (1546), Schloss Gottorf (Bünsche 1995, 59), cf. also Schade 1974, 49; Sandner 1998 A, 58. Red chalk underdrawings were also identified on paintings from the Multscher workshop and its circle (Popp 1997, 211-213).
- ¹⁵ Grimm's attribution of the underdrawing of the portrait of Johann Friedrich I (1509) to a journeyman cannot be confirmed, as so far no underdrawing has been disclosed (Grimm, Erichsen, Brockhoff 1994, 371).
- ¹⁶ Whether the *Venus with Cupid* (FR 396) provides such an example has to be further examined. Infrared reflectography revealed traces of a dry and a liquid drawing medium (Sandner, I., personal communication).
- ¹⁷ Cennini (Thompson 1960, 75); De Mayerne 1620 (Berger 1901, 279); Sandner 1998 A, 59. When dealing with the transfer of the layers of paint and ground to a new support, Rüdiger Beck and Andreas Mieth found the sketch of a coats of arms, executed in red chalk, under the ground of the *Holy Trinity* (c.1515), Beck, R., Mieth, A., personal communication.
- ¹⁸ Cf. Bonnet 1992, 263.
- ¹⁹ It is not possible to discount the fact that the paint has become more translucent with time. However, in this passage there is little modelling achieved by the addition of darker pigments. Dunkerton, Foister, Spring 2000, 14, describe similar phenomena on a work by Michael Pacher.
- ²⁰ Köhler 1973, 13.
- ²¹ Cf. Westfehlung 1993, 168. Highly detailed underdrawings which are covered only by more or less transparent paints can also be found on the works of other masters, e.g. Wertinger, *The Seasons* (1525-26), Nuremberg, Germanisches Nationalmuseum; Meister der Heiligenmartyrien, Wien, Österreichische Galerie, cf. Straub 1984, 165.
- ²² Schade compares the underdrawing with quill pen and wash drawings on paper (Schade 1977, 12). Ritschel suspects an attempt on Cranach's part to enhance the underdrawing, perhaps to compete with Jacopo de Barbari who was employed at the same time at the Wittenberg court (Ritschel 1995, 49-50). According to Sandner an assistant might have re-worked the master's initial sketch (Sandner 1998 B, 88). To my mind there are not sufficient reasons to substantiate Grimm's attribution of the underdrawing to another master (Grimm 1998, 69).
- ²³ Cf. Riemann 1980; Gronau 1972; Giebe, Schölzel 1996; Sandner 1998 et al.
- ²⁴ Cf. Sandner 1998 B, 83-95.
- ²⁵ In German *arbeitstechnisch bedingte Unterzeichnung*, cf. Straub 1984, 159-164 and slightly different Siejek 2004, 23 and Kirsch 2004, 158.
- ²⁶ 'Item wenn [du] ein tail an ein tafel vergulden wildt und den andern nit, so reiss voraus und trag den das prauurodt darnach auff' (Berger 1912, 194); cf. Cennini, chapter 123 (Thompson 1960, 76).

²⁷ Cf. Cennini, chapter 140 (Thompson 1960, 85-86).

²⁸ Cf. also the incised crescent moon on FR Sup 6H.

Applications of gold, silver and paper

¹ For example, the *Kemberg Altarpiece*, which was produced in Lucas Cranach the Younger's workshop in 1565, was provided with a gilded frame.

² This source, given by Schade 1974, 404, No. 63, could not be traced under the reference quoted therefore the wording has not as yet been verified.

³ Bruck 1903, 310, 323.

⁴ Sandner 1993, 108.

⁵ Schulze 1933, 91.

⁶ Prochno 1933, 26.

⁷ As early as 1520, Wulf Brenntzdorf received a sum of 30 *gulden*, but the question as to whether he himself was a goldbeater or a trader remains open.

⁸ Cf. Ploss 1960, 62; Nadolny 1999, 137. A contract drawn up in 1478 in Lenzkirch, Upper Bavaria, refers to three qualities of gold: *pruniertes vynes tuggaten gold* for the paintings, *pruniertes vines gold* behind the figures in the shrine and *Rinsches gold* in the crest; Koller, Wiribal 1981, 186.

⁹ Paulinyi 1981, 36.

¹⁰ The *Altarpiece of the Virgin* (1529) in Halle, which was painted by a pupil who had probably left the Wittenberg workshop, is so far the only object where, by means of EDX, a higher proportion of copper in the applied gold leaf has been detected.

¹¹ This figure is the result of a comparison of different accounts from the years 1536/38 (cf. app. II).

¹² Merhart, Zulehner 1987, 75.

¹³ *St Stephen, King of Hungary* (c. 1511): c. 8.5 cm; *Neustadt Altarpiece* (1511-13): 9-9.3 cm (authenticity of visible gold leaf on the frame mouldings untested); *Portraits of a Couple von Schleinitz?* (1526): 9 cm (authenticity of visible gold leaf on the frame mouldings untested). A gold leaf format of 9.2 cm has often been determined on Nuremberg altarpieces (Oellermann, E., personal communication).

¹⁴ This calculation means that the information supplied by Erichsen and Müller-Wirthmann that a book of refined gold, invoiced by Cranach, corresponded to one-third of a square metre of gold leaf is not correct (Grimm, Erichsen, Brockhoff 1994, 254).

¹⁵ By comparison with the Dresden pharmacy price list of 1553 (Burmester, Krekel 1998 A, 100), which quotes 1 leaf of *auri* at 4 *pfennig*, Cranach charged a lower price, i.e. 3.36 *pfennig*. Cf. also Bürbach 1994, 215, on changes in the value of gold in the sixteenth century.

¹⁶ Cf. Agricola 1546, 213-214 on the thickness of gold leaf.

¹⁷ Enlarged ten-thousandfold, the thickness was estimated in a scanning electron microscope. A sixteenth-century Nuremberg guild ordinance states that at least 300 leaves 3.5 *Zoll* square

must be beaten from one *Dukat* of gold (3.5 g) (Baumann 1988, 25). By comparison, Kühn estimated the thickness of gold in pictures by Niklaus Manuel Deutsch at 300-500 nm (Kühn 1977, 159). The thickness of the leaf from the background of a panel from the San Pier Maggiore Altarpiece of 1370-71 is only about 256 nm (Bomford et al. 1989/90, 22). Cf. Nadolny 1999, 143-145.

¹⁸ Merhart, Zulehner 1987, 75.

¹⁹ In German usage, the term *Mordent* denotes an adhesive containing wax, in English 'mordant' refers to any type of adhesive for metal leaf. I am using the term mordant in the latter sense.

²⁰ On the technique and history of water-gilding see Straub 1984, 180-182; Bomford et al. 1989/90; Dunkerton et al. 1991.

²¹ Cf. Campbell, Foister, Roy 1997 B, 31.

²² Cf. chapter II, p. 138.

²³ Since the previous line mentions *minnige*, this can hardly be the usual red lead.

²⁴ FR 78, 79, Sup1C, Sup1F, the *Altarpiece of the Virgin* and the *Altarpiece of the Holy Kinship*, Aschersleben, St. Stephani.

²⁵ FR 83, 135-38, Sup1F, Sup6H, the *Altarpiece of the Virgin* and the *Altarpiece of the Holy Kinship*, Aschersleben, St. Stephani.

²⁶ FR 65.

²⁷ FR 65, the *Altarpiece of the Virgin* Aschersleben, St. Stephani; a retable shutter depicting St Barbara, Liechtenstein Gallery (Photograph in Witt Library, London).

²⁸ Cf. Dunkerton et al. 1991, 179-182.

²⁹ A later example is provided by the *Altarpiece of the Virgin* (1529, FR Sup 6A), which may have been produced outside the Wittenberg workshop.

³⁰ On the corresponding picture, *Portrait of the Wife of a Viennese Scholar*, this is a mixture of yellow ochre, lead white as well as small amounts of red and black pigment.

³¹ Roy, A., personal communication.

³² 'Von der golt varb. Nim oger als ein welschen nuss, minium vnd spangrün jedlich als ein hasel nuss vnd reibs mit leinöl ab gar dick darnach mach es dünner mit firniss.' *Liber illuministarum* (Berger 1912, 195).

³³ Cf. Wetering 1997, 24.

³⁴ Cf. Berger 1912, 195; Ploss 1952, 166; Straub 1984, 237; Oltrogge 2003.

³⁵ Cf. chapter II, pp. 138-140.

³⁶ Insufficient dyestuff was present in a sample for positive identification using HPLC: 'One tiny early component showed some spectral features reminiscent of (but not identical to) those given by brazil wood dyestuff, but unfortunately this was not confirmed by the extraction of the second very small sample.' Jo Kirby, Analysis report 3.8.2001. Cf. Berger 1912, 196; Straub 1984, 232.

³⁷ Alberti 1540, 138.

³⁸ Cf. Baxandall 1987, 26.

³⁹ Other written forms in transcribed sources are *zwischen* and

zwißgoldt (cf. app. II).

⁴⁰ Straub 1984, 184.

⁴¹ *Liber illuministarum* (Berger 1912, 195).

⁴² Zaglmaier 1988, 28.

⁴³ Darmstadt, Hessisches Landesmuseum; Kühnen, R., personal communication.

⁴⁴ At about the same time, powdered gold was also used on the *Agony in the Garden* (after 1537), Düsseldorf, museum kunst palast.

⁴⁵ Boltz von Ruffach 1549, 53, 129.

⁴⁶ Cf. Ames-Lewis 1984, 352.

⁴⁷ Cf. Theophilus Presbyter (Berger 1912, 63).

⁴⁸ Dunkerton et al. 1991, 182.

⁴⁹ Ames-Lewis 1984.

⁵⁰ Straub 1984, 240.

⁵¹ For prices of leaf silver and *zwichgold* cf. Burmester, Krekel 1998 A, 100; Kirby 2000, 20.

⁵² Cennini (Thompson 1960, 60), Straub 1984, 188.

⁵³ Ploss 1960, 80-81; Straub 1984, 188.

⁵⁴ Cf. Tångeberg 1989, 250; Rief 1999, 114-122.

⁵⁵ Cf. Hoffmann 1992, 48-51; Bünsche 1998 B, 26-32.

⁵⁶ Berlin, SMBPK, Gemäldegalerie, Inv.-No. 636; Bern, Kunstmuseum, Inv.-No. 541; cf. Dülberg 1990, 189.

⁵⁷ Cf. Dürer's copperplate engraving of Elector Friedrich III the Wise with an inscription produced in 1524.

⁵⁸ Hoffmann 1992, 48.

⁵⁹ On the basis of the watermark, Homolka was able to date the paper on which the texts are printed at around 1530. Cf. Löcher, Gries 1997, 146-148; Briquet 1968, No. 4927; Piccard 1961, 47.

⁶⁰ Hoffmann 1992, 52.

⁶¹ Bartl, Gärtner 1997, 136.

⁶² Eisenach, Lutherhaus, inscription on paper or parchment, reworked with colour.

⁶³ The gold print *St George on a Horse* (B 65, Koepplin, Falk 1974, 63-66) on blue-tinted paper is one of the earliest examples of this technique. According to Falk, gold leaf is applied in this instance before printing in black. Cf. Falk (Koepplin 1977, 17).

⁶⁴ Cf. Andersson 1981, 44.

⁶⁵ Cf. Thümmel (Grimm, Erichsen, Brockhoff) 1994, 166-173.

⁶⁶ The job of executing the painting was entrusted to a pupil, known as the Master of the Pope Gregory Masses (cf. Tacke 1992). Gold leaf was again used on the *Altarpiece of the Virgin* (1529), which was also worked up by a painter trained in the Cranach workshop.

⁶⁷ Munich, Bayerische Staatsgemäldesammlungen, Alte Pinakothek. Cf. Tacke 1992, 87-91.

⁶⁸ Melanchthon *Zwei Bücher von den Anfangsgründen der Redekunst*, 1532 (Lüdecke 1953 A, 77).

Paint, palette and brushes

¹ Thüringisches Hauptstaatsarchiv in Weimar (ThHStAW), Sächsisches Hauptstaatsarchiv in Dresden (SHStAD),

Staatsarchiv in Coburg (StACo) and Stadtarchiv Wittenberg (StAWB); cf. app. II.

² Cf. Burmester, Krekel 1998 A, 55, 61.

³ Schade 1974, 404, No. 65 (cf. app. II, 37).

⁴ Schuchardt 1871, 282. My assertion that Cranach also used *lackmus* (litmus or something similar derived from species of lichen) in his workshop (Heydenreich 1998 B, 108), was based on this false transcription (cf. app. II, 232).

⁵ Müller-Wirthmann, B., 'Malmittel und Pigmente nach der Wormser Apotheken-Taxe' (Grimm, Erichsen, Brockhoff 1994, 230; Campbell, Foister, Roy 1997 B, 51 (cf. app. II, 6).

⁶ The full text appears in appendix II. All pigments and binding media are also listed in table 5. I am grateful to Monika and Dieter Lücke, Nauendorf as well as Rainer Hambrecht, Coburg for transcriptions.

⁷ Luther (Reimer 1761, 6).

⁸ For example, four small Netherlandish cloth paintings were bought for the elector at the New Year's Market in 1505 (app. II, 1).

⁹ Cf. Heydenreich 2007.

¹⁰ Cf. Müller-Wirthmann, B., 'Cranachs Apotheke' (Grimm, Erichsen, Brockhoff 1994, 220-221).

¹¹ Cf. Lücke 1998, 25, 38-39.

¹² Published without indication of source in Schuchardt 1871, 74-75; cf. also Zülch 1926, 38-39.

¹³ StAWB, Vertrags-, Gerichts- und Handelsbuch der Stadt Wittenberg von 1523 bis 1551, 113 (Bc 101), fol. 357v, 358r (Lücke 1998, 42).

¹⁴ Schuchardt 1871, 75.

¹⁵ Zülch 1935, 331.

¹⁶ Burmester, Krekel 1998 B, 101; Burmester, Krekel, Haller 2000, 195.

¹⁷ Cf. Saran 1972, 210-213.

¹⁸ Cf. Witthöft 1983, 236; Burmester, Krekel 1998 A, 83.

¹⁹ Burmester, Krekel 1998 A, 96-100.

²⁰ Another written form found in transcribed sources is: *bleyweyß* (cf. app. II).

²¹ Gettens, Kühn, Chase 1993.

²² Cf. Bomford et al. 1989, 21; cf. also below *linseed oil*

²³ For example, the lead white on the *Fourteen Helpers in Need* (c.1505/07), on the *Altarpiece with the Martyrdom of St Catherine* (1506) and on the *Martyrdom of St Catherine* (c.1508) contains only traces of calcium. By contrast, significantly higher amounts have been detected on the *Princes' Altarpiece* (c.1510) and on the *Saviour* (c.1515/16). Burmester, Krekel 1998 A, 64-65, made similar observations on works by Dürer. Cf. also Kirby 2000, 29.

²⁴ Ploss 1964, 341.

²⁵ For information on pigment prices in other European cities cf. Kirby 2000, 22, 36-39.

²⁶ Other written forms found in transcribed sources are: *creiden* and *kreyden* (cf. app. II and chapter II, p. 93).

²⁷ The obviously lower price of chalk by comparison with that of lead white leads to the supposition that, in addition to reasons of painting technique, there were also economic grounds for using it.

²⁸ Cf. Stößel 1985, 136.

²⁹ Calcium is consistently found in copper green glazes from the fifteenth and sixteenth centuries (Koller, Wibiral 1981, 143; Eikema Hommes 2004, 56). Eikema Hommes attributes the presence of calcium to the method of preparation.

³⁰ *'If you wish to purify blue by washing take lime and let it stand overnight with water over it and then carefully pour off the surplus water on to the blue. Then take lye to get rid of the lime. Afterwards pour clean water on the blue and let it stand overnight to enable the pigment to sink to the bottom.'* Borradaile 1966, 21. Cf. also Heck 1999. Pigment mills were also cleaned with lime stone (Kremer, G., personal communication 5 June 2003).

³¹ The Strasbourg Manuscript recommends the addition of a little calcined bone dust in order to make the colour dry well (Borradaile 1966, 25). De Mayerne (1620) also mentions the practice of adding a little glass to the red lake pigment (*Berger* 1901, 121).

³² Burmester, Krekel 1998 A, 86; 1998 B, 102. Orpiment has also been identified on a later copy of *Christ and the Woman Taken in Adultery* (c. 1600?), Nasionalgalleriet Oslo, NG.M.0172, (Plahter, L. E., personal communication, 29 January 1999).

³³ Cf. also Löcher, Gries 1997, 126-128.

³⁴ Noll-Minor 1996, 211.

³⁵ Noll-Minor, M., personal communication, 7 June 1999.

³⁶ The yellow layer of paint examined contains lead white and fairly large amounts of calcium but no lead-tin yellow or ochre.

³⁷ Other written forms found in transcribed sources are: *pleigel*, *pleygel*, *bleigel*, *bley gelf* (cf. app. II).

³⁸ Roy, A., National Gallery London, unpublished analysis of 20 December 1993. Due to the absence of silicon in all samples investigated within this research, it can be assumed that this type predominates, but this has not been confirmed by other methods of analysis.

³⁹ Under the microscope, colourless or whitish inclusions can be detected (fig. 105). The EDX analysis of a paint sample from the Budapest *Martyrdom of St Catherine* (c. 1508) revealed that these were neither particles of resin or protein, or grains of quartz, but particles containing lead; their structure requires closer examination. Cf. Kühn 1993 A, 183 and see below *leynoel*. For information on differing shades of lead-tin yellow cf. also Krekel, Burmester 2000, 199.

⁴⁰ Burmester, Krekel 1998 A, 65-66, thereby correct Koller 1984, 321; cf. also Brachert 2001, 47.

⁴¹ Fuchs, Oltrogge 1991, 61-62.

⁴² Kühn 1993 B, 83-112.

⁴³ In this instance, *bley gel* even costs three times the price of red lead and is just as expensive as lead white. Cf. Burmester, Krekel 1998 A, 96-100.

⁴⁴ Cf. Kühn 1990 B, 82; Kirby 2000, 28; Eastaugh 2004, 232.

⁴⁵ Cf. Agricola 1556 B, 110, 221, 232; Brachert 2001, 47.

⁴⁶ Other written forms found in transcribed sources are: *ocker gel*, *oger gel* (cf. app. II).

⁴⁷ Cf. Eastaugh 2004, 279-280.

⁴⁸ Agricola 1556 A, 469; cf. Agricola 1546, 63 and Gockel 1996, 60-61.

⁴⁹ Noll-Minor 1992, 24, was able to detect the extensive use of yellow ochre bound in lime in the Chamber of Mirrors of the castle at Torgau.

⁵⁰ Other written forms found in transcribed sources are: *minnige*, *mennich*, *mennig* (cf. app. II).

⁵¹ FR 16, 78, 89, Sup. 6A; cf. also Kühn 1990 B, 74.

⁵² FR 15, 16 (cf. chapter II, pp. 184-187).

⁵³ West Fitzhugh 1986, 111.

⁵⁴ Burmester, Krekel 1998 A, 69.

⁵⁵ These are the *Kunstbuch* from the Katharinenkloster in Nuremberg and a Berlin Manuscript (Ploss 1952, 156, 172). This process is also described in manuscripts in Erfurt (Ploss 1952, 178), Trier (Brachert 2001, 163-164) and Brussels (Merrifield 1967, 807)

⁵⁶ Cf. Burmester, Krekel 1998 A, 96-100.

⁵⁷ Possibly because of its comparatively lower price, red lead was often used and already as early as the twelfth century as a component of oil-bound grounds. Cf. chapter II, p. 97.

⁵⁸ Other written forms found in transcribed sources are:

zcinober, *zcynober* and *zynober* (cf. app. II).

⁵⁹ Gettens, Feller, Chase 1993, 161-162; Burmester, Krekel 1998 A, 68-69; Brachert 2001, 278; Resenberg 2005 A, 2005 B.

⁶⁰ *Cinnabaris metallica nativa*, *Cinnabaris fossilis seu Cinnabrium fossile*, *Ammion*, *Minium nativum*, *Bergzinober* // *Cinnabaris metallica factitia*, *Minium artificale*, *Cinnabrium artificale*, *Zinober* // *Cinnabaris factitia praeparata*, *geribener Zinober* oder *Vermilion* (Basse 1582, XXII).

⁶¹ Cf. Burmester, Krekel 1998 A, 96-100.

⁶² FR 20, 78, 89. I am grateful to Aviva Burnstock for interpreting the results of the analysis. Cf. also Grout, Burnstock 2000, 20.

⁶³ Cf. *kesselpraun* and Kühn 1984, 21-22.

⁶⁴ The Strasbourg Manuscript refers to red, burnt ochre (*roten gebrennten verger*), Borradaile 1966, 56-57. Agricola reported that the painters from Hanover burned ochre (Agricola 1546, 63) and the *Kunstbuch* from the Katharinenkloster in Nuremberg describes how to burn ochre (*wie man den ogger premet*), the Nuremberg *Kunstbuch*, second half of the fifteenth century, Nuremberg, Stadtbibliothek, Ms. Cent VI, 89 (Ploss 1952, 138; cf. Roosen-Runge 1984, 78).

⁶⁵ Cf. Scholz 1929; Schweppe 1992, 229-416; Kirby, White 1996; Schweppe, Winter 1997, 109-142.

⁶⁶ Cf. Ploss 1952; Roosen-Runge 1984; Stößel 1985; Schweppe 1992; Brachert 2000 et al.

⁶⁷ The price of 126 *pfennig* per ounce even exceeds the prices listed in the *taxae* in Munich (1488) and Memmingen (1519)

for *Grana tinctorum* (96 pfennig an ounce). Cf. Burmester, Krekel 1998 A, 70-71, 99-100; Kirby 2000 and Kirby, J., personal communication.

⁶⁸ Aretino, P., *Lettere sull'Arte*, ed. E. Camesasca, Vol. II, Milano (1957) 235 (Schweikhart 1997, 31).

⁶⁹ Even in 1750, Goeree comments accordingly: 'Weil in den Lacken so ein gar grosser Unterschied ist, und so vielerley Arten derselben vorhanden, so soll man sich den besten zu bekommen befeißigen.' Goeree 1750, 289. For information on the early trade in American cochineal cf. Beckmann 1792, 28-29, Schweppe 1992, 79.

⁷⁰ '...und sol auch nit raiten gebn oder nennen zwifsgold für veingold, noch perckplaw für veinlasur, oder memsch für perckplaw, noch kain rösel oder parisrot für lack.' Huth 1923, 98.; Kirby 2000, 21.

⁷¹ Borradaile 1966, 34-35.

⁷² *Liber illuministarum*, Munich, Bayerische Staatsbibliothek, Cgm 821, 26v, 27v (Brachert 2000, 187-188).

⁷³ *Liber illuministarum*, Munich, Bayerische Staatsbibliothek, Cgm 821, 24v (Brachert 2000, 187).

⁷⁴ Boltz von Ruffach 1549, 61-62.

⁷⁵ The Nuremberg *Kunstabuch*, second half of the fifteenth century, Nuremberg, Stadtbibliothek, Ms. Cent. VI, 89, 21v. (Ploss 1952, 143-144); Bamberg, Staatsbibliothek, Msc. med. 12, 181v. (Burmester, Krekel 1998 A, 71).

⁷⁶ Cf. Burmester, Krekel 1998A, 70-71.

⁷⁷ Cf. Kirby, White 1996.

⁷⁸ Zaglmaier 1988, 27-28; C. Willoughby and N. Eastaugh, analysis report of FR 191 (undated, unpublished).

⁷⁹ Jo Kirby, analysis report 3 August 2001 (unpublished).

⁸⁰ Cf. Heydenreich 1998 A, B.

⁸¹ Cf. Spring 2000; Richter, Hahn, Fuchs 2001.

⁸² Roosen-Runge 1984, 89-90; Fuchs, Oltrogge 1991, 60.

⁸³ Harley 1982, 77-80.

⁸⁴ Saran 1972 B, 234.

⁸⁵ Zedler 1733, 709, 1264; Berger 1901, 430; Benziger (1913) commenting on Boltz von Ruffach 1549, 139; cf. also Burmester, Resenberg 2003.

⁸⁶ Brachert 2001, 222.

⁸⁷ Cf. Heydenreich 2003.

⁸⁸ Other written forms found in transcribed sources are: *schiffergrun*, *scheffergrün* and *schiefer grün* (cf. app. II).

⁸⁹ Other written forms found in transcribed sources are: *berkgrun* and *berckgrun* (cf. app. II).

⁹⁰ *Göttinger Musterbuch* (fifteenth century), Göttingen, Niedersächsische Staats- und Universitätsbibliothek, 8° Uff. 51 Cim, fol. 1, 5, 5' (Roosen-Runge 1984, 117; Fuchs, Oltrogge 1991, 60).

⁹¹ *Berliner Musterbuch* (fifteenth century), SMBPK, Kupferstichkabinett MS 78 A 22, fol. 2, 10' (Roosen-Runge 1984, 90).

⁹² *Schriber-Musterbuch* (1494), Munich, Bayerische Staatsbibliothek, Codex iconographicus 420 (*Höhle* 1984, 227-228, Brachert 2001, 221).

⁹³ *Liber illuministarum* (c.1450-1512), Munich, Bayerische Staatsbibliothek, Cgm 821, fol. 88v (Bartl, A., personal communication, 28 March 1996; Ploss 1952, 211).

⁹⁴ Boltz von Ruffach 1549, 76.

⁹⁵ *Reformatio Und erneuerte Ordnung der Apotecken... Auffgericht im Jahr 1582*. Printed: Frankfurt a. M. 1582. Munich, Bayerische Staatsbibliothek, 4° Mat. med. 188m.

⁹⁶ Burmester, Krekel 1998 A, 83.

⁹⁷ '[...] Item 4 lb. span-grün, und 1 firtel, kauft man 6 lb. vor den gulden. [...] Item 2 1/2 lb. schifer-grün, das lb. 1 fl. [...] Item berkgrün 12 lot. [...] Item alchemy grun, 5 lot. [...] Item 1lb. 2 lot schefergrün das lb. 1 fl.', Staatsarchiv Frankfurt Inv.-No. 16, fol. 1-3, 1528 (Saran 1972 A, 210-213).

⁹⁸ Boltz von Ruffach 1549, 76, 104, cf. Kunst- und Werckschule 1707, 527; Pictorio 1730, 105; Eyßvogel 1756, 216.

⁹⁹ *Reformatio Und erneuerte Ordnung der Apotecken... Auffgericht im Jahr 1582*. Printed: Frankfurt a. M. 1582. Munich, Bayerische Staatsbibliothek, 4° Mat. med. 188m; Zedler 1733, 1264.

¹⁰⁰ Richter 1988, 173-174.

¹⁰¹ Fuchs, Oltrogge 1991, 60.

¹⁰² Roosen-Runge 1984, 89-90.

¹⁰³ Beckmann 1779, 200; cf. Demachy 1784, 335-338.

¹⁰⁴ Bausch 1668, 136; Saran 1972 B, 233.

¹⁰⁵ Cf. Siemroth, Witzke, 1999, 1-2.

¹⁰⁶ Gesner 1565, 16-17, 68; cf. Bausch 1668, 140; Scheffer 1669, 169.

¹⁰⁷ Prange 1782, 319; Krünitz 1826, 482. Fuchs and Oltrogge 1991, 60, also regard the high proportion of quartz and silicates in the colour sample examined in the Göttingen Model book as an indication for the existence of malachite as a product of the weathering of copper shale.

¹⁰⁸ Zedler 1733, 709, 1264; Kunst- und Werckschule 1707, 518.

¹⁰⁹ Schreger 1805, 168.

¹¹⁰ Schmidt 1857, 329.

¹¹¹ (1) *feines Grün oder Rindenfarbe, dergleichen sich in Rinnen ansetzt*; (2) *Dunkelgrasgrün und* (3) *Schiefergrün, als das schlechtest* (Schreger 1805, 168).

¹¹² Schmidt, 1857, 329, cf. Brachert 2001, 39.

¹¹³ Since ancient times chrysocolla (chrysos = gold and colla = solder) was the term for soldering materials, minerals and pigments. Pliny refers to chrysocolla as an indeterminate copper mineral formed from a liquid in the mines (Plinius XXXIII, § 86-93, 64-69). Agricola 1556 B, 110, also uses chrysocolla to describe borax and green copper minerals. Correspondingly, Pfarrer 1578, 50b, writes: '*Schifer- or berggrün* which is similar to verdigris has been called *Chrysocollam*, this was used for soldering and to heighten the colour of gold.' (cf. Minerophilo 1784, 78; Bausch 1668, 136-137). Today chrysocolla is regarded as a copper silicate.

¹¹⁴ Agricola 1546, 215 (Text after Agricola 1556 B, 584, Footnote 15). According to Hoover and Hoover, this description of its

occurrence would apply equally well to modern *chrysocolla* (copper silicate) or to malachite. The solution from copper ores would deposit some sort of green incrustation, probably of carbonates mostly (Agricola 1556 B, 584, Footnote 15). On the other hand, Harley 1982, 77-79, suspects that it is a copper silicate.

¹¹⁵ Agricola 1556 A, 469-470.

¹¹⁶ Agricola 1557, 482.

¹¹⁷ Zipser 1842, 53-54.

¹¹⁸ Zedler 1733, 1264; Born 1774, 198-199; Ferber 1780, 166-168; cf. Zipser 1817, 102.

¹¹⁹ One Schemnitz *lachter* was equivalent to approximately two metres.

¹²⁰ State Mining Archive, Banská Štiavnica, HKG, Resolutions, Prothocoll 1001-1699, 209.

¹²¹ Vlachovic 1964, 239.

¹²² Vozar 1983, 228.

¹²³ Bauer, J. *Generelle Darstellung des K.K. Herngrunder Bergwerkes*, manuscript, State Mining Archive Banska Štiavnica, Inv.-No. 9099, I225.

¹²⁴ Born 1774, 198, 199; Ferber 1780, 168; Delius 1773, 426.

¹²⁵ Zipser 1842, 53, 54.

¹²⁶ Cf. Burmester, Resenberg 2003; Krekel, Burmester, Haller 2005.

¹²⁷ Zipser 1817, 101; cf. Ferber 1780, 168.

¹²⁸ Huber 1983, 19-29.

¹²⁹ Cf. Huber 1983, 19-29; Kirnbauer, Steiskal-Paur 1959, 82. According to Peter Jancsy, personal communication 14 February 2000, there are more copper carbonates in the upper sections of the tailings in Sandberg and, in the lower section, there are also copper sulphates. Jancsy alluded to the occurrence of langite ($\text{Cu}_2\text{SO}_4(\text{OH})_6 \cdot 2\text{H}_2\text{O}$) on the Richtarova tailings. A green dripstone-like formation from the Herrengrund-Neusohl region, now in the Naturhistorisches Museum in Vienna, was identified by Vera Hammer, personal communication, 8 February 2001, as a mixture of malachite and langite with traces of anglesite. Kirnbauer, Steiskal-Paur 1959, 54-55, describe the occurrence of devilline (*herrengrundit*, $\text{CaCu}_4(\text{SO}_4)_2(\text{OH})_6 \cdot 3\text{H}_2\text{O}$) accompanied by brochanite, gypsum, malachite, tetrahedrite and calcite.

¹³⁰ Self, Hill 2003, 132.

¹³¹ Banská Bystrica, 23 SNP Square, Fragments of a wall painting in a room on the ground floor. Cf. Heydenreich et al. 2005, 482-484.

¹³² Zvolen castle, wall painting, vault of a passage in the north wing. Cf. Heydenreich et al. 2005, 482-484.

¹³³ Schloss Colditz: Kellerhaus, Raum 1.05, fragment of a painted loam ceiling, c.1520, and Kellerhaus, Raum 1.05, painted paper partially laminated on to a ceiling with wooden beams, c.1583/84, as well as Wittenberg (Markt 4, Haus Ib, Raum 1.16, west wall). Cf. Schmidt 1998, 119-122.

¹³⁴ The secondary mineral malachite, crystallised as a result

of the natural weathering and the alteration of a pre-existent copper mineral, may be distinguished from a precipitated malachite formed on tailings from water containing copper and dissolved carbonate. Strictly speaking, the drainage from tailings, mines and slag piles is a result of human activities and thus the precipitated malachite is a tertiary or tailing mineral (Jambor 1994, 103-132; cf. Siemroth, Witzke 1999, 5-15).

¹³⁵ *Schriber-Musterbuch* (1494), Munich, Bayerische Staatsbibliothek, Codex iconographicus 420 (*Höhle* 1984, 126).

¹³⁶ *Göttinger Musterbuch* (fifteenth century), Göttingen, Niedersächsische Staats- und Universitätsbibliothek, 8° Uff. 51 Cim, fol. 1, 5, 5'.

¹³⁷ *Trierer Manuskript* (fifteenth century), Trier, Stadtbibliothek, manuscript 610/1957, 32v.

¹³⁸ All these aspects require further investigation which is planned by the author in collaboration with Marika Spring, Martina Stillhammerová and Carlos M. Pina.

¹³⁹ Boltz von Ruffach 1549, 76, 104.

¹⁴⁰ 'Die in der Grube in den Rinnen sich ansetzende Farbe, hier Rindelfarbe genannt, ist reicher an Kupfer, als die an den Kasten am Tage, und verträgt mehr Bleiweiß als jene. Sie soll gegen 40 Pfund Kupfer, jene nur 30 Pfund haben.' (Ferber 1780, 167).

¹⁴¹ Gettens, West Fitzhugh 1993, 183-202; Naumova, Pisareva 1994, 277-283; Dunkerton, Roy 1996, 20-31; Dunkerton, Foister, Spring 2000, 19; Roy, Gordon 2001, 4-17; Heydenreich et al. 2005, 480-488.

¹⁴² Gettens, West Fitzhugh 1993, 183-202.

¹⁴³ Heydenreich et al. 2005, 484-487.

¹⁴⁴ Ratkoš 1971, 285-287; Straube 1997, 115; cf. Heydenreich 2006.

¹⁴⁵ Schweizer and Mühlethaler 1968, 1159-1173 produced spherulitic malachite synthetically from a solution of copper sulphate, to which was added a solution of sodium carbonate. This malachite developed only a low-colour intensity. Cf. Ellwanger-Eckel 1979, 6; Harley 1982, 77-80; Gettens, West Fitzhugh 1993, 183-202; Naumova, Pisareva 1994, 277-283.

¹⁴⁶ Kirnbauer, Steiskal-Paur 1959, 46-49.

¹⁴⁷ *Göttinger Musterbuch* (fifteenth century), Göttingen, Niedersächsische Staats- und Universitätsbibliothek, 8° Uff. 51 Cim, fol. 1, 5, 5'; *Schriber-Musterbuch* (1494), Munich, Bayerische Staatsbibliothek, *Codex iconographicus 420; Reformatio Und erneuerte Ordnung der Apotecken... Auffgericht im Jahr 1582*. Printed: Frankfurt a. M. 1582. Munich, Bayerische Staatsbibliothek, 4° Mat. med. 188m.; Burmester, Krekel 1998, 55-101.

¹⁴⁸ *Trierer Manuskript* (fifteenth century), Trier, Stadtbibliothek, manuscript 610/1957, 32v.

¹⁴⁹ *Codex Clm*, 1464-1473, Munich, Bayerische Staatsbibliothek, Cod. Clm.20174, 172v (*Brachert* 2001, 221).

¹⁵⁰ Grimm 1893, 53-60; Grimm 1899, 1534.

¹⁵¹ Cf. Gesner 1565, 16-17, 68; Bausch 1668, 136-140; Scheffer 1669, 169. In the late sixteenth century *Schiefergrün* was delivered from the Tyrol to Wolf Pronner in Munich (Haller,

U., personal communication). Unfortunately, Haller's Ph.D. thesis was not available before the typescript for this book had to be completed.

¹⁵² Cf. Brachert 2001, 39.

¹⁵³ *Christ Blessing the Children*, after 1537, Lavrik Church, Norway, unpublished analysis by Odd Helland, Institut Royal du Patrimoine Artistique, Brussels, 1963; *Aristotle and Phyllis*, 1530, unpublished analysis report (No. 28416) by Christoph Herm, Schweizerisches Institut für Kunstwissenschaft, Zurich, 2001 (cf. Beltinger, K. Becker, T., 'Aristotle and Phyllis by Lucas Cranach the Elder. Technical examination and restoration', unpublished typescript, Schweizerisches Institut für Kunstwissenschaft, Zurich, November 2000).

¹⁵⁴ Other written forms found in transcribed sources are: *spangrün* and *spangrun* (cf. app. II).

¹⁵⁵ Kühn 1993 C, 131-132; Woudhuysen-Keller, Woudhuysen 1998, 135; Burmester, Krekel 1998 A, 74-75; Brachert 2001, 107-108.

¹⁵⁶ Agricola 1546, 243-244; Oltrogge 2003; Eastaugh 2004, 385.

¹⁵⁷ Kühn 1993 C, 145.

¹⁵⁸ Burmester, Krekel 1998 A, 87-101.

¹⁵⁹ We found green copper salts in small amounts added to black colours (see black pigments).

¹⁶⁰ Cf. Kühn 1993 C, 148-158; Woudhuysen-Keller, Woudhuysen 1998, 136-137; Eikema Hommes 2001, 163-195; Eikema Hommes 2004, 51-89.

¹⁶¹ White, Pilc 1995, 88-89.

¹⁶² Cf. Berg et al. 2000, 18-21; Eikema Hommes 2001, 163-195; Eikema Hommes 2004, 51-89.

¹⁶³ FR 149.

¹⁶⁴ FR 35, 135, 271A.

¹⁶⁵ Merrifield 1967, I, 286; cf. Woudhuysen-Keller, Woudhuysen 1998, 142.

¹⁶⁶ Trier, Stadtbibliothek, Cod. 610; cf. Ploss 1960, 323.

¹⁶⁷ Other written forms found in transcribed sources are: *grünsaft* and *grunsaft* (cf. app. II).

¹⁶⁸ Göttingen. SUB. 8° Uff. 51 Cim (fol. 5); Fuchs, Oltrogge 1991, 61.

¹⁶⁹ Borradaile 1966, 48; cf. Roosen-Runge 1984, 92.

¹⁷⁰ Bern Burgerbibliothek, Cod. Hist. Helv. XII 45, p. 175 (Oltrogge 2003).

¹⁷¹ Cf. Fuchs, Oltrogge, 1991, 61; Roosen-Runge 1984, 92; Boltz von Ruffach 1549, 139; Ploss 1960, 322-323; Harley 1982, 86-87; Brachert 2001, 211-212 and Oltrogge 2003.

¹⁷² Plesters 1993, 37-66; Campbell, Foister, Roy 1997 B, 34.

¹⁷³ On his trip to the Netherlands, Dürer paid 12 *Dukaten* an ounce (Rupprich 1956, 165).

¹⁷⁴ It was not possible to confirm the assertion that Cranach used ultramarine on the *Altarpiece with the Martyrdom of St Catherine* as early as 1506 (Giebe Schölzel 1996, 76). Whereas it was possible in the case of FR 18 and FR 20 to achieve a positive result using both false-colour infrared pho-

tography and EDX, the false-colour infrared photograph of the *Altarpiece with the Martyrdom of St Catherine* gave no indication of the presence of ultramarine.

¹⁷⁵ The information by Müller-Wirthmann that in 1505 Cranach paid only about one *floren* for a pound of ultramarine proved incorrect (Grimm, Erichsen, Brockhoff 1994, 230); Campbell, Foister, Roy 1997 B, 51, Footnote 132. The invoice quoted refers in fact to *blawglasurt farb* (see pp. 157-158).

¹⁷⁶ Cf. Faries, Steinbüchel, Asperen de Boer 1995, 135-139; Kirby 2000, 31.

¹⁷⁷ Campbell, Foister, Roy 1997 B, 35; Burmester, Krekel 1998 B, 104.

¹⁷⁸ Rupprich 1956, 165; Burmester, Krekel 1998 A, 75.

¹⁷⁹ Dürer to Jacob Heller on 26 August 1509 (Rupprich 1956, 72; Burmester, Krekel 1998 A, 75).

¹⁸⁰ Plesters 1993, 39.

¹⁸¹ Sold in Vienna, Dorotheum, October 1996, lot 175; cf. Mairinger, F., *Bericht über die naturwissenschaftliche und maltechnische Untersuchung eines Gemäldes: "Kreuzigung", bezeichnet L. Cranach d.Ä. (U 681)* 4 June 1996, unpublished, p. 3.

¹⁸² Cf. chapter II, pp. 48.

¹⁸³ Gockel, 1996, 26-39; Burmester, Krekel 1998 A, 77.

¹⁸⁴ By comparison with the coarsely ground azurite particles, the finer fractions are of more uniform shape (cf. figs 117, 119).

¹⁸⁵ Since medieval azurite mining documents in Germany (Burmester, Krekel 1998 B, 103) refer to their product as *lasur* or *lazur*, the term *lasurblau* in Cranach's invoice of 1523 must refer to azurite. The synthetically produced blue colours, which are of lower quality, are variously described as *lazur* (amongst others in the Nuremberg *Kunstbuch*, cf. Ploss 1952, 153-155; Burmester, Krekel 1998 A, 79-80). In Antwerp the term *schlechte blau aussen* was also understood to mean blue verditer, a synthetic copper pigment (Kirby 1999, 31). It was possible to determine the *plo* in the *Göttinger Musterbuch* as being azurite (Fuchs, Oltrogge 1991, 60).

¹⁸⁶ Noll-Minor 1996, 213.

¹⁸⁷ Cf. Campbell, Foister, Roy 1997 B, 52, Footnote 152; Howard 2003, 46-47.

¹⁸⁸ Until now the use of slightly inferior quality azurite could only be identified on some workshop productions such as the pair of wings with St Catherine and St Barbara (FR 31).

¹⁸⁹ *Veldung blog* and *schlecht feldung blow* were also recorded at different prices in a list of materials used for the decoration of a church and chapels in Dusenbach near Ribeaupillé between 1489 and 1492 (Lorentz, Rapp 2004, 224, 228).

¹⁹⁰ Grimm 1862, 1479, 1491.

¹⁹¹ Borradaile 1966, 44-45.

¹⁹² *Item die feldung auf das stanniol magstu machen von leim varb oder von öl varb. Item zu roter veldung im zinober vnd öl, zu plab nim ein grün plab oder lasur vnd tempirs mit öl, zu praun feldung nim ein tunkels rössl vnd leim wasser, zu grün nim spangrün vnd*

reibs den gar wol vnd mach in gut dünn, so wird es etwas durchsichtig' (Berger 1912, 195); cf. Bartl, Lautenschlager 2000, 180. The Munich Painters' Ordinance alludes to 'ain matery von ölfarb malen in ainer weingulden geprännerten feldung' (Ploss 1960, 79) and the contract drawn up between Michael Pacher and Benedikt, Abbot of Mannsee, of 13 December 1471, stipulates that 'Item dy innern flug der tafel sullen sein guet gemall, dy veldung vergult...' (Koller 1998, 20).

¹⁹³ According to visual examination, its use is also likely on the fixed wings of the *Zwickau Altarpiece* (c.1518).

¹⁹⁴ This price is about half that documented in the pharmacy price lists in Munich in 1488 and Memmingen in 1519 (64 *pfennig* an ounce). We do not know, however, if the quality of this pigment is identical to that in the price lists and on the panels. In 1486, a predecessor of Cranach's, the court painter Cuntz, charged 42 *groschen* for a pound of *blaw lasur* (Bruck 1903, 282).

¹⁹⁵ *Liber illuministarum*, fol. 121; Munich, Bayerische Staatsbibliothek, Cod. Clm. 20174, fol. 180v-181r, Oltrogge 2003 and Oltrogge, D., personal communication.

¹⁹⁶ Boltz von Ruffach 1549, 77; Burmester, Krekel 1998 A, 80, suspect that *lasurasche* denotes a finely grained azurite which, because of its particle size, appears grey. As Cranach used a very finely grained deep blue azurite on his paintings, the assumption must be that *ascherblau* was strongly contaminated. Boltz von Ruffach and later Beckmann 1779, 205 comment on this accordingly.

¹⁹⁷ Cf. Brachert 2001, 26, 91, 152.

¹⁹⁸ In an invoice from 1545 *feldtun plaw* and *ol plaw* are charged collectively (app. II, 272).

¹⁹⁹ Cf. Ploss 1952, 80. The term *Ölgrün* was still in use in the eighteenth century for an inferior malachite. Cf. Beckmann 1779, 204; Demachy 1784, 338.

²⁰⁰ In the eighteenth century, *Oel-blau* was known, amongst other designations, as the pigment smalt (cf. Brachert 2001, 234).

²⁰¹ Schade 1974, 402.

²⁰² Müller-Wirthmann (*Grimm, Erichsen, Brockhoff* 1994, 230).

²⁰³ Campbell, Foister, Roy 1997 B, 51.

²⁰⁴ Bruck 1903, 301.

²⁰⁵ In a instruction dated 1 July 1535, Elector Johann Friedrich I wrote of 'gruine glasurte dachziegel'. Cf. also Ploss 1952, 200, on *glasur*.

²⁰⁶ Contemporary painting treatises and trade documents name the colour variously *Schmeltze* (Boltz von Ruffach 1549, 77) or *Smalto* (Biondo 1549, *Stege* 2004, 131).

²⁰⁷ Mühlethaler, Thissen 1993, 113-130; Binger 1996, 36-39; Brachert 2001, 234.

²⁰⁸ Campbell, Foister, Roy 1997 B, 36; *Stege* 2004, 121-142.

²⁰⁹ Darrah 1995, 74; *Stege* 2004, 133-134.

²¹⁰ Unpublished report of analysis by the Naturwissenschaftliches Labor der HfBK Dresden (Schramm, H.-P., personal

communication).

²¹¹ Eisenach, Wartburg-Stiftung.

²¹² Cf. Birkmaier, Wallert, Rothe 1995, 123.

²¹³ Cf. Schweikhart 1997, 39. De Mayerne (1620) also mentions the practice of adding a little glass to the red lake pigment (Berger 1901, 121).

²¹⁴ Cf. Schweppe 1997, 81-108; Brachert 2001, 126-128.

²¹⁵ A recipe from the twelfth century shows that medieval book illustrators derived the indigo colourant from the lather of the dye pot (*Färbekessel*). The term *wait blumen* was used for this (Oltrogge, D., personal communication); cf. Fuchs, Michon 1986, 361; Brachert 2001, 266.

²¹⁶ For information on prices of woad in the fifteenth and sixteenth century cf. Scholz 1929, 128. Cf. Eikema Hommes 2004, 91-169.

²¹⁷ Indigo has been identified on a *Crucifixion* (Sold in Vienna, Dorotheum, October 1996, lot 175), Mairinger, F., personal communication. However, in the light of all the technical analysis, it seems unlikely that this work was produced in the Cranach workshop. It is rather a copy of the *Crucifixion* (1532, FR 218) in Indianapolis.

²¹⁸ Berger 1912, 198. The author recommends *Kesselbraun* for *Leberfarbe* (liver colour) and indicates that it should be worked in oil (Oltrogge, D., personal communication).

²¹⁹ Burmester, Krekel 1998 A, 67.

²²⁰ Burmester, Krekel 1998 A, 83. We found nothing in the Latin edition (Agricola 1556 A) or in the German translation (Agricola 1557) to confirm the point made by Hoover on the publication of Agricola 1556 B, 221, that in the Glossary of *De Re Metallica*, the Latin scholar equated his *interpretatio* or the German translation *Aeris squamae* (copper scales) with *Kupferhammerschlag* and *Kesselbraun*.

²²¹ Bohn 1763, 439. Eyßvogel also mentions Kesselbraun: 'Schön Braun: Nihm Kesselbraun, glühe es, nihm dann 1. Theil dessen, und 3 Theil Fluss, reibs, ist gut' (Eyßvogel 1756, 81).

²²² Schreger 1805, 173; Fernbach commented on this, suspecting that it was produced in Franconia. (Fernbach 1834, 70); cf. also Rose 1916.

²²³ Cremer 1895, 137; cf. Eibner 1909, 210.

²²⁴ Kühn 1984, 40.

²²⁵ Burmester, Krekel, 1998 A, 67, cf. also Brachert 2001, 136. Recently, Ursula Haller suggested that in the late sixteenth century the term Kesselbraun was used to describe a brown mixture of different copper oxides. (Haller, U., "Administrator of Painting": The Purchase- and Distribution-Book of Wolf Pronner (1586-1590) as a Source for the History of Painting Materials', Lecture given at the conference Trade in Painters' Materials: Markets and Commerce in Europe to 1700, held at the National Gallery and the Courtauld Institute of Art, London 2005).

²²⁶ Sign. HB XI, 48 (vgl. Privatbibliothek in 8 K 109). Elgin van Treeck-Vaassen and Peter van Treeck kindly drew my atten-

tion to this manuscript. Cf. Mone 1837, 606; Grimm 1873, 623; Ploss 1952, 203; Ploss 1989, 184; Treeck 2000, 247.

²²⁷ For information on other meanings cf. Brachert 2001, 68-69.

²²⁸ Stuttgart, Württembergische Landesbibliothek, HB XI 48, 5f.

²²⁹ *'Item crocus martis der edelst der maler welt est und kainer machen mag, den laust euch bringen vo[n] venedig oder vo[n] dem see, den rost den man fint an den alten anckern, den gluit brun in ain frichen kol südin und loud in kalt werden und reibt in auf einen stein so ist er schon brun alst ain scharlach.'*

²³⁰ Der Fürstlichen Grafschaft Tirol Landtrem 1558 (*Hormayr* 1841, 23).

²³¹ Walter, H. H., 'Siedepfanne' (*Treml, Riepertinger, Brockhoff* 1995, 44-45); Riepertinger, R., 'Kästchen mit dem Modell einer runden Sudpfanne' (*Treml, Riepertinger, Brockhoff* 1995, 152-153).

²³² Jahn, W., 'Ordentliche Beschreibung des ganzen hällingischen Salz Weesens...' (*Treml, Riepertinger, Brockhoff* 1995, 54); Riepertinger, R., 'Nachbau einer bayerischen Sudpfanne vor 1780' (*Treml, Riepertinger, Brockhoff* 1995, 150).

²³³ We found traces of copper in the brownish, translucent layers on green underpainting which were in all likelihood originally green and not brown glazes.

²³⁴ Schade transcribed this incorrectly as colophony (Schade 1974, 404, No. 65).

²³⁵ The amount of 2 faß *kotlofran* was used in the decoration of Schloss Colditz. (ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. Rechnungen Nr. 969, Jahresrechnung des Amtes Colditz 1529/21, fol. 70) Schmidt, T., personal communication, 20 October 1998.

²³⁶ Cf. *Kadel, Kadelrohr, Kadluf* and *Rahm* in Grimm 1873, 17 and Grimm 1893; Ploss 1952, 202.

²³⁷ Schmidt 2000, 36-40.

²³⁸ *'zu druckerdinte brauchet man kadluf, rusz und firmes'* (Grimm 1873, 17).

²³⁹ Borradaile 1966, 48-49.

²⁴⁰ *'Thun die knollen in ein hafem, güss gute loug darüber, lass ein tag also erbyssen durcheinander. Setz es darnach zu dem für und lass es den dritten theyl ynsieden. Lug plib by dem hafem, dann so bald es anfacht heiss werden, so stygen die knollen obsich, die mustu stätigs mit eim höltzlin nidsich triben und eben warten, das dir der haff nit überlauff. Wann es dann gnug ist yngsotten, so heb es vom fhür und lass es erkalten und still stan ein tag und ein nacht. Syhe darnach die farb süberlich oben ab in ein glass so hastu fyne harfarb. Diss gelutert russ wasser ist gar brüchlich zu vülen mixturen. Ist ein gemeine harfarb. Wann du es sat wilt haben, so such alwegen die dicke am boden.'* (Boltz von Ruffach 1549, 83).

²⁴¹ Translucent brown-black coatings applied to the versos of FR 357F, 357G, 409B need further examination.

²⁴² FR 11, 18, 20, 78, 191. On several paintings, the brown glaze-shave suffered abrasion and damage from past cleaning.

²⁴³ Cf. White 1986. We were not able to confirm the use of red lake pigments in translucent brown shades such as determined by Burmester, Krekel 1998 A, 67, on Dürer's works. It was not possible in the paint samples examined to detect calcium and aluminium as an indication of corresponding substrata.

²⁴⁴ Cf. Bothe 1998, 365-366. Softwood tar and pitch respectively were determined on Cima's and Garofalo's paintings (cf. White 1986, 66; White, Pilc 1995, 86-87).

²⁴⁵ Borghini 1584 (*Berger* 1901, 41); Armenini 1587, 122 (*Berger* 1901, 55); cf. Bothe 1998, 370.

²⁴⁶ Cf. White 1986, 58-59.

²⁴⁷ Boltz von Ruffach 1549, 84; cf. Bothe 1998, 368.

²⁴⁸ Neudorffer 1555 (*Schuchardt* 1871, 85-86).

²⁴⁹ Neelmeijer, Wagner, Schramm 1995, 328.

²⁵⁰ Since the *Kunstbuch* from the Nuremberg *Katharinenkloster* clearly distinguishes between *guten kyn swartz* and *rüß von einer lampen, kyn ruß* and lamp black should not be used as synonyms (cf. Ploss 1952, 139).

²⁵¹ Plinius XXXV, 41-43; cf. Florini 1750, 841; Roosen-Runge 1984, 100.

²⁵² Bamberg, Staatliche Bibliothek, Msc. med.12, Pap., fifteenth century 8, 223Bll., mediz. Sammelhandschrift, fol. 182r, text after Ploss 1952, 139.

²⁵³ Kühn 1984, 42; Koller 1984, 319; Burmester, Krekel 1998 A, 81.

²⁵⁴ Soot black is also the pigment used for the *grisaille* painting on the versos of the shutters of the *Altarpiece of the Holy Kinship* (1509). See also Tuurnala et. al. 1991, 72; Campbell, Foister, Roy 1997 B, 42.

²⁵⁵ Boltz von Ruffach 1549, 93.

²⁵⁶ Kühn 1993 C, 136; cf. Howard 2003, 87.

²⁵⁷ Merrifield 1967, II, (2):822; cf. Woudhuysen-Keller 1995, 65.

²⁵⁸ De Mayerne 1620 (*Berger* 1901, 267); cf. Eikema Hommes 2004, 11.

²⁵⁹ As a result of incorrect reference to information supplied personally by the author, Neelmeijer, Wagner and Schramm mistakenly describe traces of azurite on the *Fourteen Helpers in Need* (c.1505/07) to refine the black pigment (Neelmeijer, Wagner Schramm 1995, 328). Blue pigment has until now only been observed in the Johannes Cuspinian's robe (FR 6). Campbell, Foister and Roy report also a little verdigris added to the black pigment in Cranach's *Portrait of a Man* in the National Gallery (Campbell, Foister, Roy 1997 B, 42).

²⁶⁰ Neelmeijer, Wagner, Schramm 1995, 328.

²⁶¹ Cf. the instruction in the Strasbourg Manuscript on putting lumps of soot in lye (Borradaile 1966, 49, 90).

²⁶² We found low quantities of various red colourants in several passages of paint (FR 6, 16, 20, 214A).

²⁶³ Boltz von Ruffach 1549, 84-85.

²⁶⁴ Cf. Burmester, Krekel 1998 A, 80.

²⁶⁵ *'Nymb bey combasten meher 1 S helffenbeynene abschnidlein*

(kost 4 dn.) thue es in ein unverglest seide hefelein deckh ein sturtzlein darüber verkleybs mit lainen auf das allergenauest gibst einem hafner das ers mit annderen hefen die er breud einsetz, so es nun aus dem ofen wie andere hefen genommen wird brich die sturtzen herab, stos inn einem morser zu Bulver wann das zum schreibenn oder molen brauchen wilt reibs unnder Leynöl so wirstu sehen das es schwertzer dann kein schwartz ist.' Schuchardt 1871, 85-86. The recipe noted by Schuchardt has barely been taken into account by research. Burmester and Krekel 1998 A, 81, deny that there was any mention of bone- and ivory black in sources of the time. Cf. also Thieme, I, 'Schwarze Pigmente zur Retusche schwarzer matter Oberflächen', unpublished seminar paper, HfBK Dresden 1996. In the course of a comparison of ten different black pigments in different binding media with ivory black, the author was able to produce the deepest shades of black.

²⁶⁶ White 1986, 69, mentions that ivory black greatly slows down the drying of the oil. This phenomenon could perhaps have persuaded Cranach to use other black pigments.

²⁶⁷ *Christ and the Woman of Samaria* (c.1552); *Elector Johann Friedrich I* (1578).

²⁶⁸ *Idem*

²⁶⁹ The table refers only to those materials listed in the invoices (cf. app. II), with amounts and price details, or to those determined on the paintings. In addition, other materials (e.g. yellow lake pigments) may have been used.

²⁷⁰ Cf. Wetering 1997, 225-243; Baumer, Fiedler, Koller 1998.

²⁷¹ This was the usual practice. Depending on the documentary sources, different qualities can be prepared easily to be distinguished in colour, drying time and adhesive quality (cf. Willers 1986, 115).

²⁷² Cf. app. II and chapter IV, pp. 264-265.

²⁷³ Cf. chapter III, p. 245.

²⁷⁴ Cf. Raft 1982.

²⁷⁵ The fairly frequent use of azurite in oil binding media leads to the assumption that the copper ions were masked. Cf. Campbell, Foister, Roy 1997, 52; Baumer, Fiedler, Koller 1998, 114-117.

²⁷⁶ Beading effects could occasionally be observed (FR 16), the origin of which could correspond to aqueous components. Cf. also Sandner, Ritschel 1994, 189.

²⁷⁷ Cf. Schmidt 2003, 152, 155.

²⁷⁸ Other written forms found in transcribed sources are: *leinöhel* and *leinöl* (cf. app. II).

²⁷⁹ White Pile 1995, 88-89.

²⁸⁰ The use of other oils, e.g. (wal)nut oil, cannot be discounted.

²⁸¹ Cf. Keller 1973; Baumer, Fiedler, Koller 1998, Brachert 2001, 155. Since the invoices do not differentiate between different linseed oils, it is possible that they were made up in the studio.

²⁸² Cf. Straub 1984, 209-215.

²⁸³ Campbell, Foister, Roy 1997 B, 42. So-called *stant öl* was used for painting work at Schloss Colditz (Schmidt 2003, 156).

²⁸⁴ FR 15, 16, 181 (cf. Campbell, Foister, Roy 1997 B, 42, cf. also *kyn ruß*). Moreover, pigments containing lead might have been added to the paints with this intention.

²⁸⁵ Small colourless particles with a jagged shape and an elemental composition typical of glass (mainly Si, with Na, K, Ca, and a small amount of Mn, analysed by EDX) were detected in a red lake glaze on the portrait of the wife of a Viennese scholar from 1503 (Spring, M., personal communication).

²⁸⁶ Using GC-MS and FTIR microscopy, a trace of pine resin was detected in a rich red paint from the pattern of a sleeve on the portrait of Johann Friedrich I the Magnanimous from 1509 (White Pile 1995, 88-89, 93).

²⁸⁷ Cf. Straub 1984, 215; Campbell, Foister, Roy 1997 B, 42; Kirby 1999, 32.

²⁸⁸ Concerning the formation of metal soap aggregates see Boon et al. 2002 and Noble, Loon, Boon 2005.

²⁸⁹ Attempts to determine these inclusions and layers by FTIR-imaging technique were unsuccessful. Kühn 1990, 78, made similar observations on medieval panel paintings from Cologne and suspects that emulsified media were used.

²⁹⁰ Traces of running paint are clearly visible in the X-radiograph.

²⁹¹ Boiled linseed oil (not heat-bodied oil) was identified as a painting medium on Dürer's works (cf. Baumer, Fiedler, Koller 1998).

²⁹² *Petroleum* and *terpenthin* were traded at the Leipzig fairs at large quantities (*Waageordnung*, c.1500, Stadtarchiv Leipzig, Tit. XVIII (F) Nr. 115, fol. 17v, 20). Cf. Campbell, Foister, Roy 1997 B, 41; Brachert 2001, 191.

²⁹³ FR 1, 2, 3, 5, 6, 8, 9, 12, 14, 15, 20, 68, 150, 160, 214A.

²⁹⁴ Cf. Eibner 1922; Bothe 1998, 376.

²⁹⁵ The statement that these drying effects can only be explained as a result of a change of oil and protein-dominated binding media is, in my view, unfounded (cf. Sandner, Ritschel 1994, 189).

²⁹⁶ Cf. Straub 1984, 243-247.

²⁹⁷ More modern spirit varnishes cannot therefore be discounted, but there is no record of them in contemporary German written sources (cf. Ackroyd et al. 2000, 37-38).

Mastic resin was identified on the *Adam* in Brussels and it was assumed to be the first varnish. Cf. Kléber, Masschelein Kleiner 1964 (Koller 1984, 328); Brachert 2001, 85-86, 191.

²⁹⁸ Cf. Berger 1912, 197; Straub 1984, 243-246.

²⁹⁹ Aqueous intermediate varnishes cannot so far be discounted and glue-bound azurite backgrounds were presumably not varnished. Cf. also Koller 1984, 328.

³⁰⁰ The woodcut was published in the Luther Bible 1534, 79.

³⁰¹ *Lucas Cranach at the Age of 70*, c.1543/47, woodcut, Dresden, Staatliche Kunstsammlungen, Kupferstichkabinett (A 5382), cf. Grimm, Erichsen, Brockhoff 1994, 225, fig. 5.

³⁰² Boltz von Ruffach 1549, title page; Gettens, Stout 1966, 302; Wetering 1997, 141.

³⁰³ Wetering 1997, 140-146.

³⁰⁴ FR 16 (*Christ as Man of Sorrows*, right leg); FR 141 (hand).

³⁰⁵ Luther Bible 1534, 79.

³⁰⁶ Cf. Boltz von Ruffach 1549, title page or Hans Burgkmair the Elder, *The Emperor Maximilian in a Painter's Studio*. Woodcut, from *Der Weisskunig*, Stuttgart, Staatsgalerie, Graphische Sammlung (fig. 200).

³⁰⁷ 'Item wenn du die goltvarb genüg hast wildu sy lenger behalten so thue sy in ain scherbel und geuß wasser darauf dy andren öl varb macht man auch also etc' *Liber illuministarum*, fol. 104v, Bartl, A., personal communication; cf. Berger 1912, 198; Kirby 1999, 15; Baumer, Fiedler, Koller 1998, 118.

³⁰⁸ The word *feg* is very probably identical with the Middle High German form *vech*. Cf. *Fech* in Grimm 1862, 1386. The term *Feh* is still used today by the fur and brush industry to describe squirrel. The hair obtained from the animals' tails has the smallest diameter of all natural hair used for brush production. Elector Friedrich III the Wise's overcoats were also lined with *Feh* (cf. Dihle 1930, 131). Cf. also Welther 1991, 22-23.

³⁰⁹ 'A grete fox taile' is also documented in the accounts for materials and tools used by Holbein in 1527 (Foister 2001, 113).

³¹⁰ Boltz von Ruffach 1549, 118-119. Cf. also Cennini (*Thompson* 1960, 40-41).

³¹¹ Brushes of the same size were used on, among other paintings, the *Princes' Altarpiece* (c.1510).

³¹² FR 19: c.5 mm; *Adam and Eve* (Vienna, Kunsthistorisches Museum, Inv.-No. 929): c.10 mm.

³¹³ Brachert 1996, 345; Bartl (*Bartl, Gärtner* 1997, 140); Schulz, Wright 1999, 267.

Techniques of painting

¹ Doerner 1921, 187-192, Straub 1984, 219.

² Gronau 1972, I, 61-63, 67; Barkowsky 1980, 55.

³ Wolters 1938; Gronau 1972, I, 94-96.

⁴ Riemann 1972 A; Gronau 1972, I, 61-63; Riemann 1980, 118; Decker 1983, 50; Zaglmaier 1988, 38; Sandner 1994, 186.

⁵ Gronau 1972, I, 151; Riemann 1980, 151.

⁶ The description of the techniques of underdrawing is based on comparison of microscopical investigations of the paintings' surface, examination of X-radiographs and analysis of cross-sections. The results presented may thus only partly describe the variety of practices in the workshop.

⁷ The use of a pale purple undermodelling for blue appears also in fifteenth-century Italian pictures, but it is uncertain whether a connection exists. Cf. Os et al. 1978, 16.

⁸ Identified on FR 17, 18, 30, 31; 80, 105, 107, 108 et al.; not identified on FR 35, 41, 85, 132, 138, 184, 311A, *Crucifixion* (Gera, Kunstgalerie) et al.

⁹ FR 80, 89, 132B, 206, 219, *Altarpiece of the Virgin* (Aschersleben, St. Stephani) et al.

¹⁰ FR 47A, 78, 79, Sup1C et al.

¹¹ FR 219, cf. Barkowsky 1980, 79; it is possible that there is also grey-black underpainting under green on FR 49.

¹² Microscopical examination of the *Portrait of a Woman* revealed a reddish layer with white, red and black pigment which could not be identified conclusively as underpainting or *imprimatura*.

¹³ FR 145, 146. In 1994 in the course of a microscopic examination of the painting's surface, we judged the brown underpainting described in Hand, Mansfield 1993, 40, to be a mixture of white and black pigments, i.e. a grey layer. On the *Altarpiece of the Holy Kinship* (1509) a grey layer has been found under green foliage.

¹⁴ Zaglmaier 1988, fig. 54.

¹⁵ It is possible that a relatively early example of more extensive grey undermodelling might be preserved with the *Nativity at Night* (FR 101/102). Technical examination has yet to be undertaken.

¹⁶ Cf. Raft 1982, 116.

¹⁷ Cf. Raft 1968, 1-5; Raft 1982, 113; Koller 1984, 329-330.

¹⁸ Cf. Dunkerton et al. 1991, 203; Woudhuysen-Keller 1995, 67-68.

¹⁹ FR 412B, 412C, 433 et al.

²⁰ FR 366C, *Christ Blessing the Children* (c.1540/45).

²¹ The brushwork indicates a particularly fast working method experienced in handling paint. Cf. *Elaborating the flesh tones*.

²² Cf. Friedländer, Rosenberg 1978, 151.

²³ Neudorffer 1555 (*Schuchardt* 1871, 85-86).

²⁴ Black underlayers for blue are already known in Roman painting as well as in late-medieval European sculpture and panel painting. Cf. Kühn 1990 B, 72; Hodge et al. 1998, 74; Bartl, Gärtner 1997, 297.

²⁵ The term black here describes the appearance under the stereomicroscope. In examinations of cross-sections, there were also traces of colouring elements, e.g. copper green, red iron oxide, vermilion and calcium carbonate.

²⁶ FR 133, 168, 176, 177, 204, 206, 278, 305 et al.

²⁷ FR 60, 65, 89A, 132, 133, 182C, 287 et al.

²⁸ FR 11, 132, 372, Sup 1C, Sup 6H, et al.

²⁹ Erfurt, Angermuseum.

³⁰ FR 133 (book binding); FR 206 (clouds).

³¹ The same technique was used on the *Altarpiece of the Virgin* in Kade and on the *Crucifixion* in Dessau (cf. Fritsche, Günther, Koch and Mieth, Report of examination 1991/92, unpublished, p. 4).

³² The table only distinguishes between opaque red pigments, translucent red glazes, white and black but not between individual pigments and lake pigments. It reflects neither slight traces of pigment nor the partial or extensive application of paint, thus allowing only a simplified and incomplete overview.

³³ 'Du mußst so malen, daß ein rotes Ding überall rot und doch erhaben sei..., damit nicht jemand sage, schau wie ist der Rock auf

einem Teil so schön rot und on the anderen hat er weiße Farbe oder bleiche Flecken... - ...Auch mit dem Schatten soll man es so halten, daß man nicht sage, ein schönes Rot sei mit Schwarz beschissen...' Heimberg 1998, 45, after Rupprich 1966, 393.

³⁴ FR 183.

³⁵ FR 304.

³⁶ FR 329.

³⁷ FR 49.

³⁸ On several paintings the application of the glaze is broad and does not follow precisely the forms (FR 271A, 267, Szafran, Y., personal communication 18 August 2003).

³⁹ Examples of grey and other underpainting are rare (see above).

⁴⁰ The sole example of the works examined is *St Stephen, King of Hungary* (c.1511). The paint for the grass in the foreground of the picture has been partially mixed in this way. The underpainting of the green cushion on FR 89 contains green, blue and yellow pigments.

⁴¹ FR 1, 12, 13, 14 et al.

⁴² Cf. Campbell, Foister, Roy 1997 B, 35-36.

⁴³ Groschopf examined the long tradition of the depiction of shot silk and recognised in the first decade of the sixteenth century a wave of enthusiasm for *changeante* effects (cf. Groschopf 1939).

⁴⁴ Groschopf 1939, 22.

⁴⁵ FR 17, 18, 31.

⁴⁶ Groschopf 1939, 31.

⁴⁷ Also *Altarpiece of the Virgin*, Kade; *The Altarpiece of the Virgin*, Aschersleben; FR 112A, 132B, 160, 224, Sup IC, Sup 13 et al.

⁴⁸ FR 74A, 97, 129, 159, 160, 214, *Altarpiece of the Virgin*, Kade et al.

⁴⁹ *Altarpiece of the Virgin*, Aschersleben; *St Martha*, Aschaffenburg; FR 64D (The yellow-blue combination here is in contradiction with Sandner's early dating of the altarpiece to around 1510, cf. Sandner 1993, 106-107).

⁵⁰ This is the same colour combination by which the sky is occasionally lightened towards the horizon (for example in FR 159).

⁵¹ 'Den gmaine gmäll will ich ain jahr ain hauffen machen, das niemandt glaubte, das möglich were, das ain man thun möchte. An solchen mag man etwas gewinnen. Aber das fleisig kleiblen gehet nit von statten.' Dürer writing to Jakob Heller on 26 August 1509 (Rupprich 1956, 72).

⁵² On the *Holy Family* (1504), this stippling suggests that Joseph's hat is made of a woollen material.

⁵³ Brinkmann 1993, 87.

⁵⁴ Cf. Bartl, Gärtner 1997, 19-24.

⁵⁵ Cf. Wolters 1938, 110, fig. 54 (portrait of Elsbeth Tucher, 1499).

⁵⁶ Among the later examples there is the *Princes' Altarpiece* (c.1510).

⁵⁷ FR 20, 47A et al.

⁵⁸ FR 23, 34 et al.

⁵⁹ *Self-portrait* (1500), Munich, Bayerische Staatsgemäldesammlungen, Alte Pinakothek, Inv.-No. 537.

⁶⁰ FR 34, 39, 47A, 59 et al.

⁶¹ The same technique was used later to depict hair on the head and beards.

⁶² FR 112A; *Adam and Eve* (Vienna, Kunsthistorisches Museum, Inv.-No. 929); *The Penance of St Jerome* (Hamburg, private collection).

⁶³ Cf. Cennini (Thompson 1960, 87-89).

⁶⁴ Straub 1984, 229-230.

⁶⁵ Cf. *Altarpiece of the Virgin*, Kade.

⁶⁶ Brachert 1989, Holzheu 1989.

⁶⁷ In addition to the conscious use of the palms of hands, the presence of presumably unintended fingerprints ought to be mentioned here; an example of this is preserved on the left edge of the *King Christian II of Denmark* (1523).

⁶⁸ Karlsruhe, Staatliche Kunsthalle, Inv.-No. 122.

⁶⁹ A similar effect appears on the *Eve* (c.1508/10).

⁷⁰ Goldberg, Heimberg, Schawe 1998, 44, fig. III.20. Dürer used fingerprints to create structures in the rock formations.

⁷¹ Wolters 1938, 52.

⁷² Gronau 1972, I, 67.

⁷³ Barkowsky 1980, 56.

⁷⁴ Riemann 1980, 151.

⁷⁵ Grimm (Grimm, Erichsen, Brockhoff 1994, 335, 348).

⁷⁶ 'Cranach begann auffast all seinen Tafeln mit der Anlage des Grundtons der Inkarnate. Im Frühwerk geschah das durch feinstes Stupfen eines ockerbraunen, durchscheinenden Lokaltons, dessen Helligkeitswert je nach Bedarf variiert wurde. Dem folgte eine erste Modellierung des Lichts durch Bleiweiß mit Buntpigment Naß in Naß vermalt.' Sandner 1994, 191.

⁷⁷ Giebe, Schölzel 1996, 73, 77-78.

⁷⁸ Cf. Hamsik 1990, 39-43; Straub 1984, 224; Dunkerton, Spring 1998.

⁷⁹ Cf. Kühn 1990 B, 73-74; Straub 1984, 224.

⁸⁰ The intermediate layer could not be characterised by FTIR-imaging technique due to the thinness of the layer.

⁸¹ The essential pigments recommended by the manuscript are lead white (*blüwis*), vermilion (*zinober*), red lake pigment (*persil rot*), red lead (*minie*), ochre (*veger*), burnt ochre (*roten gebrennten veger*) and bistre (*russ*). Borradaile 1966, 57-58.

⁸² According to microscopic investigation of the painting's surface, the flesh paint on the *Altarpiece of the Holy Kinship* (1509) contains what is assumed to be ultramarine.

⁸³ Since only individual pigment particles have been detected in FR 16 and 59, these are possibly unintended additions.

⁸⁴ FR 1-16, 19 et al.; blue pigment not detected in FR 17, 31 et al.

⁸⁵ FR 30, 160, 191 et al.

⁸⁶ Similarly streaked application of paint can be discerned in the work of Konrad Witz (*Head of Benaja on the Heilspiegel Altarpiece*, Basel c.1435/36), cf. Aulmann 1958.

- ⁸⁷ Sandner 1994, 188.
- ⁸⁸ Grimm doubts that Cranach painted the central panel himself but disregards its state of preservation. Grimm (*Grimm, Erichsen, Brockhoff* 1994, 371).
- ⁸⁹ It has not been possible to identify the organic colourants within these interlayers. Cf. chapter II, pp. 159-162.
- ⁹⁰ FR 29, 33, 49, 135, 150, 214A, 407.
- ⁹¹ FR 176, 177, 184, 168, 160, 206, 311A.
- ⁹² FR 35 (Joseph), *St. Anthony* (c.1520/25).
- ⁹³ FR Sup 1C.
- ⁹⁴ Riemann 1980.
- ⁹⁵ Barkowsky 1980, 59.
- ⁹⁶ Gronau 1972, I, 74.
- ⁹⁷ Sandner 1993, 65.
- ⁹⁸ Sandner 1994, 191.
- ⁹⁹ Grimm 1994, 34.
- ¹⁰⁰ Cf. Wetering 1997, 33.
- ¹⁰¹ FR 17, 20, 68, *Adam and Eve*, c.1512/20, Vienna, Kunsthistorisches Museum et al.
- ¹⁰² FR 14, 17, 20, 68, 84, 145, 146, 168, 304, 305 et al.
- ¹⁰³ New York, Metropolitan Museum; Bomford 2002, 11; Schröder, Sternath 2003, 298-300.
- ¹⁰⁴ Florence, Galleria degli Uffizi; cf. Dunkerton, Foister, Penny 1999, 248.
- ¹⁰⁵ London, The National Gallery. Dunkerton points to obvious parallels with the *giornate* of fresco painting, but considers also that there may be a relation to the ordered partitioning of details and colour areas of altarpieces among members of the Ghirlandaio workshop. Dunkerton (*Hirst, Dunkerton* 1994, 95-96).
- ¹⁰⁶ Wetering 1997, 32; cf. Eikema Hommes 2004, 14.
- ¹⁰⁷ 'Die äußerlichen, die verbessernd zum Einzelnen feilen, sollen als 'Berichtigungen' zusammengefasst werden, diejenigen, die in das Gefüge des Bildes innerlich unprägend eingreifen, sollen 'Wandlungen' genannt werden.' Wolters 1938, 57.
- ¹⁰⁸ Wetering 1997, 42.
- ¹⁰⁹ Similar phenomena are discernible for example on FR 99, cf. Michaelis 1989/90, 123-124.
- ¹¹⁰ Sandner analyses these changes with great detail and consequently they are not dealt with further here (Sandner 1998).
- ¹¹¹ Bierende 2002, 128, 138.
- ¹¹² Schawe 1998, 164-165.
- ¹¹³ Schawe 1998, 165.
- ¹¹⁴ Cf. Gronau 1972; Riemann 1980; Giebe, Schölzel 1996, 78; Bomford 2002, 144-147.
- ¹¹⁵ Presumably, the pillar on the balustrade was also added at this later stage in order to unify the room.
- ¹¹⁶ Friedländer, Rosenberg 1978, 74 (FR 28).
- ¹¹⁷ Lübbecke 1991, 198.
- ¹¹⁸ The portrait is painted on a board from the same tree as a board used for the panel of the Otterlo portrait (Peter Klein,

report of analysis of 27 April 1998).

¹¹⁹ Cf. Schade 1972 A; Hoffmann 1992, 40-41.

¹²⁰ Tuurnala et al. 1991, 66-68; cf. FR 297 (with hat).

Painting the reverse side, presentation and transport

¹ A movable pair of shutters: FR 12-15, 18, 39, 99 et al.; a movable pair of shutters and a pair of fixed wings: FR 47A; two movable pairs of shutters: *Altarpiece of the Virgin*, Kade; two movable pairs of shutters and a pair of fixed wings: FR Sup6A (origin presumably outside the Wittenberg workshop)

² FR 99, 112A et al.

³ Cf. Campbell 1998, 168, 326.

⁴ Cf. Ritschel 1995. There is uncertainty about the original location of the large panel with *St. Anthony* (c.1520/25). On the reverse side it shows *Christ in the Sarcophagus*, which was presumably once part of a retable. Cf. Erichsen (*Grimm, Erichsen, Brockhoff* 1994, 331).

⁵ Cf. Möller 1995.

⁶ Page 3 of an edition of the book dating from 1512, *Die Martyrien der heiligen zwölf Apostel* (cf. Strehle, Kunz 1998, 115, fig. 61).

⁷ Cf. Koepplin, Falk 1976, 449.

⁸ Cf. Verougstraete-Marcq, Schoute 1998.

⁹ Thümmel (*Grimm, Erichsen, Brockhoff* 1994, 172, Footnote 10).

¹⁰ In 1633, the chronicler Wilhelmus Laurentius writes about the delivery of the Kunigunde Altarpiece from Wittenberg for the Marienkirche in Zwickau on 11 December 1518 (Sandner 1993, 106).

¹¹ In some cases the use of semi-transparent coatings is suspected.

¹² With her examination of private portrait paintings, Dülberg is the first to systematically and comprehensively explore the relationship between decoration of the reverse and storage (Dülberg 1990).

¹³ Koepplin, Falk 1974, 220, No. 101; Hoffmann 1992, 48.

¹⁴ Cf. Löcher, Gries 1997, 145-148.

¹⁵ Dülberg 1990, 121-122; Lübbecke 1991, 178-181.

¹⁶ Only the areas of the joins have been covered with tow and a thick white priming material. The same form of stabilisation can be found for example on the Electors' triptych (c.1535, FR 338A).

¹⁷ Dülberg 1990, 19.

¹⁸ FR 12, 13, 15, 28, 39, 379 et al.

¹⁹ FR 12.

²⁰ The panel was restored for the Cranach Exhibition in 1899 in Dresden (Woermann 1900, 31).

²¹ SHStAD, Geheimes Archiv, Loc 8695, Nr. 8; Geheimes Finanzkollegium. Magdeburg Rep. A25 a I., Nr. 2336-2343 et al.; cf. Noll-Minor 1996, 217.

²² Cf. Junius 1926, 247-249; Noll-Minor 1996, 214.

²³ Cf. Findeisen, Magirius 1976.

²⁴ Findeisen, Magirius 1976, 186. The technique of *Flaserndruck* was intended to imitate natural wood grain. Cf. Schade 1974, 47; Schießl 1980, 14.

²⁵ Findeisen, Magirius 1976, 186.

²⁶ Findeisen, Magirius 1976, 187.

²⁷ ‘...wie sie zuvor geziert gewesen, oben herumb der stamm Sachsen auf leinwand gemalt, eins drei ellen lang. Unden herumb ein brust geteffel fürsten auß dem stam Sachssen mit etlichen freulein von ölfarben. Die decke mit laubwerk und des Sechsische Wappen in die felder aufgeteilt, die balken mit vergulden rosen geziert. Über dem brust geteffel und in fenstern alles gemalt, der grund blau.’ Findeisen, Magirius 1976, 187.

²⁸ SHStAD, Geheimes Archiv, Loc 8695, Nr. 8; Junius 1926, 247-249; Noll-Minor 1996, 216.

²⁹ Noll-Minor 1996, 216.

³⁰ Cf. chapter III, pp. 250-253.

³¹ Noll-Minor 1996, 216. The invoice from Hansen Jheger von Aldenburg for work in Schloss Colditz also suggests that panels were permanently fixed to the wall: ‘*sunst auch umb die teffeleyen und hengende blume, umb die tucher in Euer Chruf. gnad. stub und kammer, nachm reichlichsten gemalt...*’ (app. II, 125).

³² The panel was hung with two iron rings only later. The change in load caused damage to the panel and the frame.

³³ ‘...einen eysernen dübel für an die tafel in m. gn. h. Hansen gemacht, die panel do an gefast und gemacht.’ ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 23b (Bruck 1903, 257).

³⁴ Cf. Andersson (Grimm, Erichsen, Brockhoff 1994, 216, fig. A163).

³⁵ In the background of this painting (FR 185) there is a small panel with the portrait of Christ on St Veronica’s sudarium secured to the wall in this way. This method is also documented in a fifteenth-century illustration (Alexander book of Johann Hartlieb, 1453). Cf. Dülberg, 1990, 63.

³⁶ Cf. Löcher 1985 B, 39.

³⁷ Lüdecke 1953, 72.

³⁸ Löcher 1985 B, 38.

³⁹ Dülberg 1990, 64-65.

⁴⁰ Cf. Koepplin 1964.

⁴¹ Rebel (Grimm, Erichsen, Brockhoff 1994, 131).

⁴² The eyes turning slightly outwards, when viewed from the front, are also the hallmark of other double portraits, such as of Martin Luther and Katharina von Bora. By contrast, Cranach designed the *Duke Heinrich the Devout of Saxony and the Duchess Katharina* (1514), laid out for permanent display, and numerous individual portraits, without any fixed viewpoint.

⁴³ *Diptych of Maarten van Nieuwenhove*, Bruges, St. John’s Hospital, Memling Museum (1487). The convex mirror behind the figure of the Virgin reveals the precise appearance of the space encompassed by the painting. It tells us how the artist positioned his subjects in relation to one another and how one should position the wings such that the reflection in the mirror shows the man to be facing directly towards the Virgin, who sits

squarely before the window. Cf. Vos 1994, 130-133.

⁴⁴ We can also perceive the gaze directed out of the picture on the portrait of Felicitas Tucher (1499), which is the right-hand counterpart to that of Hans Tucher, forming a diptych (Weimar, Kunstsammlungen). The noticeably extended left shoulder seems to reinforce the perspective effect, when viewed at a certain angle.

⁴⁵ Cf. Homolka 1998, Foister, Roy, Wyld 1997, 50.

⁴⁶ Löcher 1985 B, 38.

⁴⁷ Vienna, Kunsthistorisches Museum, Inv.-No. 6080, Glück (Schütz 1972, 32-33); Schade 1974, 464, fig. 222; Dülberg 1990, 300.

⁴⁸ Dülberg 1990, 164-165, 298. The ground covers the panel all round as far as the edges, the panel has not been trimmed and shows no signs of having been used as a lid.

⁴⁹ Cranach ordered cases for two silver candelabras to be turned in wood and then covered with leather (app. II, 110).

⁵⁰ Huth 1923, 28-29; cf. also Koller 1998, 20-21.

⁵¹ Gurlitt 1897, 32; Bruck 1903, 286.

⁵² For the sake of comparison, the court painter’s workshop helpers received a weekly wage of 10.5 *groschen* and the journeymen 21 *groschen*, respectively (cf. chapter V, p. 285).

Chapter III

Canvas painting

Documentary evidence and surviving canvases

¹ Shakespeare, *Henry IV*, Part II (Act II, Scene I), written 1596-97.

² Cf. Schuchardt 1851, I, 122-124, 156, 162, 206-207; Scheidig 1953, 171; Matsche (*Grimm, Erichsen, Brockhoff* 1994, 79); Grimm (*Grimm, Erichsen, Brockhoff* 1994, 384-385); Heydenreich 2002.

³ As early as 1851, Schuchardt noted references in Cranach's invoices to a considerable number of large paintings on canvas and he noticed that neither he nor his predecessors who catalogued Cranach's work, had come across a single such painting (Schuchardt 1851, I, 122-24).

⁴ Cf. Kugler 1852, 49; Scheidig 1953, 171; Schade 1974, 47; Koepplin, Falk 1974, 214. In 1996, Marx is still writing, erroneously: 'Cranach almost always painted on wood' (Marx 1996, 12).

⁵ For the sake of simplicity, the figures have been converted on the assumption that one *elle* uniformly equals at least (57 cm) (cf. Alberti 1957; Bußemer 1994), and that the minimum width of the canvas was one and a quarter *ellen* (c.71 cm). If other *elle* measurements were to be applied, the final figure would alter accordingly (cf. chapter III, p. 242; Pfeiffer 1975).

⁶ In the absence of more evidence of secular court schemes, it is impossible to say whether Cranach is typical or unusual in using so much canvas.

⁷ In the case of more than 60 paintings, it was not possible to deduce from the invoices the type of support used. It could be wood, canvas or other materials. Diptychs and triptychs were each counted as one work.

⁸ The three full-length portraits of the electors (FR 338G, c.247 x 105 cm) in the Lutherhalle in Wittenberg warrant closer examination. According to Friedländer, Rosenberg 1978 and Hoffmann 1992, 87, these are later copies of the portraits in Weimar (c.1540/45?). The ledgers of 1535/38 contain the notes: '10 *florin* for the Three Electors, dispatched on a large, life-sized canvas' (app II, 234) and 1541: '30 *gulden* for the Three Electors in the Library at Wittenberg' (app. II, 248).

⁹ 89.5 x 123 cm, in private ownership.

¹⁰ Friedländer, Rosenberg 1978.

¹¹ FR 254 (Ainsworth, M.W., personal communication)

¹² FR 272 (transferred to canvas before 1937, cf. Sv. Dagblat 9/1937)

¹³ FR 22 (transferred to canvas in 1850, cf. Kostrov 1954); 36 (transferred to canvas between 1827 and 1850, cf. Bjerre 1979/80); 60/61 (transferred to canvas before 1876, cf. Rossmann 1876, 46.); 76 (transferred to canvas between 1946 and 1954, cf. Kákay Szabó 1954, 87, 137); 219 (centre panel transferred to canvas probably in 1899, cf. Barkowsky 1980, 30); 225; 227; 228. Not mentioned by Friedländer, Rosenberg

1978 as being transferred are the following paintings: FR 65 (transferred to canvas in 1815, transferred to panel in 1994, cf. Beck 1995); 83; 359B, outside wings of the altar Sup 6A.

¹⁴ FR 297 (X-radiograph, Courtauld Institute of Art, London); a few wooden supports covered completely with canvas have not been examined (e.g. FR 214, 261), i.e. the possibility that they are canvas paintings that have been transferred to a wooden panel cannot be discounted although it seems unlikely. Koepplin 2003, 16, described the support of FR 412C as canvas, but it is in fact also a panel painting.

¹⁵ 109 x 87.5 cm, Weimar, Kunstsammlungen, Inv.-No. G 207; cf. Hoffmann 1992, 80-82.

¹⁶ 206 x 98 cm, Halle, Staatliche Galerie Moritzburg, Inv.-No. I/410, I/411; cf. Schade 1974, 102, figs 240, 241; Wiemers 2000.

¹⁷ Approximately 86 x 66 cm, Warsaw, National Museum, Inv. - No. M.Ob.1757, 1761; cf. Steinborn, Ziembra 2000, 82-88.

¹⁸ Freiberg, Stadt- und Bergbaumuseum; cf. Kolb 2005, 520, figs 224, 225. Another version exists at Schloss Ambras in Innsbruck (on loan from the Kunsthistorisches Museum, Vienna); cf. Marx, Mössinger 2005, 180-181, figs 86, 87.

¹⁹ Wittenberg, Lutherhalle; Bach, Decker 1973; cf. Schade 1974, 47, fig. 432d.

²⁰ Approximately 114 x 94 cm, Weißenfels, Schlossmuseum; cf. Bach, Decker 1973; Schade 1974, 105, Kolb 2005, 509, fig. 216 and Meißen, Stadtmuseum; cf. Kolb 2005, 508, fig. 215.

²¹ Approximately 121 x 93 cm, Dresden, Staatliche Kunstsammlungen, Rüstkammer, Inv.-No. H73, H74; cf. Schade 1961/62, 41; Schade 1974, 105; Kolb 2005, 506-511, figs 48.1, 48.2. Cf. also the portraits of the Saxon princes from the collection of Archduke Ferdinand of Tyrol (c.1578), Vienna, Kunsthistorisches Museum; cf. Schütz 1972, 35-56, figs 29-48.

²² Cf. Villers 1981; Wolfthal 1989; Rothe 1992; Villers 1995; Dubois et al. 1997; Villers 2000.

²³ Wolfthal 1989, 6.

²⁴ '8 *fl* für ein gemalt tuch do die heiligen drey konig anstehen... 4 *gulden* für zwei gemolte tucher, uf dem einen steth der englisch grus uf dem andern sand Anna und sant Cristof. 14 *gulden* für 5 gemalte tucher eins unser lieben frawen bilde, das ander sand Gorg, das drit unsers hern gefangnus, das viedt ein bancket, dz funft mit einem bade.' (Schuchardt 1851, I, 42; cf. Gurlitt 1897, 23, Wolfthal 1989, 19).

²⁵ Cf. Strieder 1981, 293.

²⁶ Christoph Scheurl's descriptions of Cranach's paintings in the Veste Coburg do not exclude the possibility that they are large-scale canvas works (cf. chapter IV, pp. 262-263).

²⁷ Cf. Villers 2000.

Subjects and function

¹ Cf. Reynolds 2000, 89-98.

² Cf. Gurlitt 1897, 6.

³ Findeisen, Magirus 1976, 187. The *Croy Tapestry* (1554) at the University of Greifswald was possibly also produced after

a cartoon by the Cranach workshop (Staatliche Museen zu Berlin 1983, 368).

⁴ For tapestry substitutes cf. Wolfthal 1989, 31.

⁵ Bruck 1903, 41.

⁶ Findeisen, Magirius 1976, 166, 187-188.

⁷ Cf. Noll-Minor 1996 and chapter IV.

⁸ Bruck 1903, 41.

⁹ We do not know whether Cranach ever painted organ shutters on canvas but we know as such from the church in the castle at Torgau. (Findeisen, Magirius 1976, 120).

¹⁰ '2 gr idem von dem tuch im rundten thurm wieder geholffen anzuschlaen' (app. II, 213); 'So wollen E. L. mit dem ainen, dorauff die hasenjagt ist, die verordnung thun, das es uf dem neuen jhagthaus zu Wolffersdorff, wan der bau fertigk, angeschlagen werde...' (app. II, 292).

¹¹ With a surface area of some 72 m², this picture is even larger than Veronese's *Marriage Feast at Cana* painted between 1562 and 1563 and measuring 6.66 x 9.90 m.

¹² Surviving animal studies on paper, such as pictures of wild boar, give an idea of these. Cf. Schade 1961/62, 29-41; Schade 1974, figs 164-166.

¹³ The panel paintings depicting hunting scenes are no larger than c.120 x 160 cm in size.

¹⁴ The subject still survives as a large-scale woodcut. Cf. Koepplin, Falk 1974, 250, No. 158; Schuchardt 1871, 127; Hollstein 1955, Vol. VI, No. 20 and app. II.

¹⁵ Cf. Stievermann (*Grimm, Erichsen, Brockhoff* 1994, 70-71).

¹⁶ Koller's assertion that it was not until the 1570s and 1580s that Cranach painted portraits on canvas is not correct. (Koller 1984, 294).

¹⁷ Findeisen, Magirius 1976, 166-168. It has yet to be established whether these 36 portraits are identical with those figuring in the invoices from 1537 for the Round Chamber towards the Elbe (cf. app. II, 226, 227).

¹⁸ As this analysis of the canvas paintings is based on only a comparatively small number of written documents (cf. app. II), the proportion of subjects may fluctuate.

¹⁹ Cf. Andersson 1981, 53, 59; Brinkmann, Kemperdick 2005, 226-234; Kolb 2005, 303-311.

²⁰ Cf. Matsche (*Grimm, Erichsen, Brockhoff* 1994, 78-88).

²¹ Cf. Bonnet 1992, 291.

²² In the case of the total of 16 canvas paintings by Dürer mentioned by Anzelewsky, there are 9 portraits, 6 pictures of saints including the Virgin and a scene from mythology. Cf. Heimberg 1998, 52. In Saxony, Luther's Reformation discouraged the veneration of saints after 1520.

²³ Cf. Dürer's copper engraving on this subject from c.1498 (Strieder 1981, 185, Bonnet 2001, 106-107).

²⁴ Cf. the series of woodcuts known as *Das Papstthum* (Schuchardt 1851, II, 248-250), *The Pope Seated on the Throne Is Thrust into the Flaming Jaws of Hell by Devils in Various Guises Two of Whom Are Removing His Crown, the Passional Christi und*

Antichristi, 1521, Blatt CV verso - CVI, *Christ's Ascension - the Pope's Descent into Hell* (Koepplin, Falk 1974, 330; Groll 1990, 271-279) and the drawing *The Pope's Descent into Hell*, c.1538 (Koepplin, Falk 1976, 511-512).

²⁵ As a result of differences in their original sizes, it is possible to make only a limited comparison between canvas paintings listed in the accounts and surviving wooden panel paintings. There are also discrepancies between the wooden panels listed and those surviving.

²⁶ Cf. Koepplin, Falk 1976, 499; Ullmann (*Staatliche Museen zu Berlin* 1983, 13-23).

²⁷ Luther 1526 (*Reallexikon zur Deutschen Kunstgeschichte*. Bd. VII, 1981, 827); cf. Andersson 1981; Schießl, Wulfert, Kühnen 2000, 102, Note 15.

²⁸ Noble 1999; Kolind Poulsen 2003, 134-135.

²⁹ Wolfthal 1989, 5, assumes that fourteenth century canvas paintings relate to the Franciscan ideal of poverty.

³⁰ The canvas *Christ Blessing the Children* (after 1540/45) warrants a closer examination in comparison with a similar version on panel in the St. Anna Kirche, Augsburg.

³¹ Cf. Kirby 1999, 17.

³² In 1477 Mantegna wrote to Ludovico Gonzaga that, 'If your Lordship wishes to send the [portraits] far they can be done on fine canvas wrapped around a dowel'. (Christiansen 1992, 69).

³³ Sächsisches Staatsarchiv Dresden, Copial 444, fol.123. Cf. Lindau 1883, 274; Schade 1961/62, 48/49; Schade 1974, 105.

³⁴ Cennini describes working on canvas as '...more pleasant to work on it than on panel, because the cloth holds the moisture a little; and it is just as if you were working in fresco, that is, on the wall.' (*Thompson* 1960, 104).

³⁵ Lücke 1998, 20.

³⁶ Großmann 1998, 80. This would allow large-scale works to be painted upright but it does not confirm such a practice. Other references describe cloth being painted on the floor (Merrifield 1967, I, 88).

³⁷ In a letter of reply dated 6 May 1551, the elector expressed his amazement that the paintings turned out too large. He felt that it certainly would not be harmful to turn them in a little (app. II, 312).

³⁸ Cranach even painted a portrait of Titian, which, however, is no longer in existence (app. II, 316); Schweikhart 1997, 39.

The linen: origin, formats and qualities

¹ To date it has only been possible as a result of analysis to establish the use of linen woven from the spun fibres of flax in the *Electoral Johann Friedrich I in Everyday Attire* (1578) by Cranach the Younger. The possibility that occasionally other materials were used, such as silk for banners, cannot be discounted (cf. Bury 2000, 19-20).

² Nübling 1890, 45, 127, 196.

³ Nübling 1890; Peyer 1959; Peyer 1960.

⁴ There is no evidence in Ulm to substantiate the view that

golschen was blue-striped linen fabric (cf. Clasen 1981, 426; Fischer 1914, 581-582).

⁵ Stadtarchiv Ulm: A[6545] Eid- und Ordnungsbuch, fol. 200r-201v. 'So folgen hernach die artikel auß der *golschen ordnung* getzogen, so die weber auch schworen sollen'. Unfortunately no further details are given as to size.

⁶ The corresponding directive on the levying of duty for the 'golschen- and canvas exhibition' calls for canvas in weaving widths of five quarters, six quarters, seven and a half quarters and seven quarters and two *ellen* (Stadtarchiv Ulm: A[6545] fol. 67r-67v 'Was vom *golschen* und den *leinwaten* zur *schaw gell* gegeben werden soll'). The fact that the 'canvas inspectors' and 'canvas measurers' were paid more for controlling *golschen* in comparison to 'canvas' leads us to assume that there was strict adherence to a certain quality.

⁷ Stadtarchiv Ulm: A[2930]36 'Braite, lenge und fadenzal der *leinwat*'. Nübling puts the date of the new weavers' ordinance at 1575 (Nübling 1890, 47).

⁸ Even if there is no reference to *golschen* in them, there is a connection. Several regulations, such as those concerning production in requisite formats, or the ban on rubbing or stretching the canvas, correspond to the *golschen* ordinance of 1537.

⁹ In 1563, three kinds of canvas, one wider than the others, were produced in Augsburg ('*dreierlei leinwat, einer breiter dann der ander gewirkt*'), Clasen 1981.

¹⁰ Fischer 1914, 581.

¹¹ Baumgartner, Meder (*Schulte* 1923, 251). The standardisation by Kepler is documented in the so-called *Kepler Kessel* (Weig, G., Stadtarchiv Ulm, personal communication). The present conversion has been carried out on the assumption that the Ulm *elle* at that time was equivalent to approximately 59.85-67.2 cm and that this *elle* was also used to measure canvas. In 1851, Noback equated an Ulm *elle* with 56.8 cm (*Schulte* 1923, 251). For information on the problems of traditional *elle* measurements cf. Pfeiffer 1975.

¹² For information on the term *Velen* cf. Straub 1984, 150.

¹³ The St. Gallen *elle* for canvas was according to drawings in sixteenth-century trade books 78 cm. Later it was equated with 73.54 cm (*Schulte* 1923, 251).

¹⁴ Peyer 1960, 23.

¹⁵ In cases where canvas was invoiced in *ellen*, the detail given referred often to half a 'piece' or one that had been divided into three.

¹⁶ Findeisen, Magirius 1976, 187.

¹⁷ Cf. Eschenhagen 1927, 98.

¹⁸ *Gregor Brück* (1557): 15-16 x 17-18 threads per cm²; *Joachim Ernst von Anhalt and His Wife* (1563): 16-18 x 16-18 threads per cm²; *Elector Johann Friedrich I in Everyday Attire* (1578): 18-19 x 16-18 threads per cm²; *Elector Johann Friedrich I in Armour* (1578): c.19 x 16 threads per cm² (Kolb 2005, 507); *Duke Moritz in Armour* (1578): c.16 x 16 threads per cm² (Kolb 2005, 506).

¹⁹ Wolfthal 1989, 23.

²⁰ Bartl, Gärtner 1997, 198, 213.

²¹ Goldberg, Heimberg, Schawe 1998, 463.

²² Cf. Bartl, Gärtner 1997.

²³ In comparison the joins of several wooden panel paintings from the workshop of Cranach the Elder were covered with obviously coarser pieces of fabric where the number of threads fluctuates between 8 and 15 threads per cm² (FR 2: c.13 x 14; FR 11: c.15 x 15; FR 20: c.8 x 8 (open weave); FR 38A: c.13 x 13; FR 47A: c.14 x 14.

²⁴ Kunze 1958, 38.

²⁵ Peyer 1960, 16-17.

²⁶ Cf. app. II, 121, 154, 164, 208, 221, 222, 225, 227, 231, 248, 272, 276, 280.

²⁷ Cf. Nübling 1890, 164. According to Clasen 1981, 389-418, during the sixteenth century, the cost of canvas from Augsburg rose by more than 170 per cent. Saxony underwent an economic decline in the second half of the century.

²⁸ The accounts books also reveal the following entry for example 1509: '13 *gr vor 20 lynden breth*' (app. II, 26) and 1536: '16 *gr vor die tafel und das futter zumachen, doruf der Lazarus gemalt*' (app. II, 205).

Preparation of the linen and painting techniques

¹ Dubois et al. 1997, 229.

² Heimberg 1998, 52.

³ In the correspondence between Johann Friedrich I and his sons in the course of 1549 the terms *gemalte tucher*, *gemelte tucher* and *gemelde* are used as synonyms (cf. Junius 1926, 240).

⁴ Cf. Schade 1974, 47, 440, No. 343; Hoffmann 1992, 80; Grimm (*Grimm, Erichsen, Brockhoff* 1994, 385).

⁵ Cf. Findeisen, Magirius 1976, 186-188.

⁶ This layer should presumably be termed an *imprimatura*.

⁷ Berger 1912, 197.

⁸ Cennini (*Thompson* 1960, 103).

⁹ Vasari 1550 (*Brown* 1960, 236-237).

¹⁰ Borghini (*Berger* 1901, 40).

¹¹ Armenini 1587 (*Berger* 1901, 56).

¹² The starch component could not be characterised by FTIR-imaging technique, but it was confirmed in cross-sections by staining tests with a solution of iodine-potassium. The iodine-starch reaction is so specific and sensitive that it can be taken as qualitative proof. (Cf. Schramm, Hering 1989, 205). Examining the *Elector Johann Friedrich I in Everyday Attire* the ground layers containing starch could be differentiated from the flour paste used with the lining process in 1973 (cf. Bach, Decker 1973). On starch in preparatory layers cf. Koller 1996, 59-82 and Diem, Koller 1999, 59-63.

¹³ Delbourgo, Rioux, Martin 1975, 21-28.

¹⁴ Volpato 1685 (*Merrifield* 1967, II, 730).

¹⁵ Cf. Anne van Grevenstein, 'The Oranjezaal of Paleis Huis ten Bosch in The Hague, 1647-1652'. Unpublished lecture at the

ICOM Committee for Conservation Paintings I and II Interim Meeting, Dublin 1998.

¹⁶ The tacking margins have been folded over the edges of the new stretcher only later (fig. 205).

¹⁷ Hans Burgkmair, *The Emperor Maximilian in a Painter's Studio*. Woodcut, from *Der Weiskunig*, c.1518 (Falk, Biedermann 1973, No. 183-184); Jost Amman, *Der Maler*, woodcut, 1568 (Goldberg, Heimberg, Schawe 1998, 58, fig. IV.2); Young, Hibberd 2000, 212-213.

¹⁸ Cennini (Thompson 1960, 103).

¹⁹ Cf. Findeisen, Magirius 1976, 186-188.

²⁰ Cf. a late-fifteenth-century Italian *tüchlein* (Dubois et al. 1997, 234) and Holbein's paintings on canvas for the Greenwich festivities in 1527 (Foister 2001, 113). Gums were traded at the Leipzig markets in large quantities (*Waageordnung*, c.1500, Stadtarchiv Leipzig, Tit. XVIII (F) Nr. 115, fol. 8v.)

²¹ Cf. Mantegna's paintings on canvas (Rothe 1992, 81).

²² Bruck 1903, 282; cf. also Reynolds 2000, 91

²³ For information on the contemporaneous practice of impregnating cloth with wax cf. Dihle 1930, 136-137.

²⁴ Oil medium was also detected in the *Elector Johann Friedrich I in Everyday Attire* (1578), Geldorf, Weerd, Heeren, analysis report 6/2000, unpublished.

²⁵ In Cologne it appears to have been usual to paint in oil on cloth by the later fifteenth century (Reynolds 2000, 91) According to Wolfthal 1989, 34, starting with Heemskerck, Netherlandish artists, also strongly influenced by Italian art, only began painting in oil media on canvas in the 1530s.

²⁶ Brunswick, Herzog Anton Ulrich-Museum, Inv.-No. 29.

²⁷ The background was underlaid in one shade of grey and then painted in blue. The blue appears grey today because of the discoloured smalt pigment.

⁴ Cf. Rothe 1992, 82-83.

⁵ Cf. Dunkerton et al. 1991, 162; Reynolds 2000, 92-93.

⁶ Following examination of just one section of the ceiling underneath, it has as yet not been possible to establish conclusively the means of subdivision. It may be that further investigation as part of the restoration work being undertaken by Noll-Minor will provide some information on this point.

⁷ Cf. Rothe 1992, 82-83.

⁸ Cf. Stoll, Sander 1993, 350; Dubois, Klaassen 2000, 70.

⁹ Cf. Wetering 1997, 122, fig. 157.

¹⁰ Cf. Dubois, Klaassen 2000, 74; Reynolds 2000, 94.

¹¹ Cf. chapter II, p. 225.

¹² Findeisen, Magirius 1976, 125.

¹³ Christiansen 1992, 68.

¹⁴ Cf. Nuttall 2000, 109-117.

¹⁵ Cf. Schade 1972 A, 7.

¹⁶ Cf. Villers 1995, 357.

¹⁷ Cf. Kolind Poulsen 2003, 134-135.

¹⁸ Cf. Findeisen, Magirius 1976. The wall decoration by Hans Fries for a house in Nuremberg, dating from 1592, with its canvas and wooden panel painting set into the architecture, could serve to give an idea of similar interior design (cf. Löcher, Gries 1997, 246-252, fig. A 3387).

¹⁹ Cf. Warnke 1993, 199.

²⁰ Foister 2001, 109-110.

²¹ Foister 2003, 116.

²² Nuttall 2000, 109-117.

Presentation and evaluation

¹ Junius 1926, 247.

² In some of the rooms at the castle at Wittenberg, rails were nailed at the top of the walls 'on which to hang tapestries' (Bruck 1903, 41-42). A woodcut entitled *The Tournament* (1509) shows a large-scale textile depicting Samson's battle with the lion hanging in front of the balustrade. Koeplin suspects that this is a canvas painted by Cranach, but it is probably a tapestry, the upper end of which is draped over the balustrade on which the spectators could lean. Cf. Koeplin, Falk 1974, 114; Timann (*Grimm, Erichsen, Brockhoff* 1994, 320).

³ As in later letters, the words *tuch* and *gemelde* are used as synonyms, it could be that an invoice dating from 1530 alludes to such a panel: '2 gr für 1 tafel zu einem gemelte' (app. II, 160). The 'panels in water colour on canvas' (*tafeln in wasserfarben aufleinwand*) referred to in the inventories from the castle at Torgau are in my opinion not necessarily conclusive evidence of panels, not least because of the larger formats involved. Cf. Magirius, Findeisen 1976, 166, 186 and app. II.

Chapter IV

Painting on other supports

- ¹ Cf. Koeplin, Falk 1976, 686.
- ² Cf. Koeplin, Falk 1976, 687; Museum der bildenden Künste, Leipzig 1993/94, 61.
- ³ Cf. Löcher, Gries 1997, 135-136.
- ⁴ Cf. Schade, Schuttwolf 1994, 18-19; Erichsen (*Grimm, Erichsen, Brockhoff* 1994, 362).
- ⁵ Munich, Bayerische Staatsgemäldesammlungen, Inv.-No. 12475; cf. Erichsen (*Grimm, Erichsen, Brockhoff* 1994, 362-363).
- ⁶ San Francisco, M.H. de Young Memorial Museum, Inv.-No. 43.9.3; cf. Schade 1974, 464.
- ⁷ Cf. Schade 1974, 384, Anm. 386, 316.
- ⁸ Erichsen (*Grimm, Erichsen, Brockhoff* 1994, 362); Schade, Schuttwolf 1994, 18-19.
- ⁹ Cf. Schade 1974, Illus. 432c.
- ¹⁰ Cf. Sieveking (*Grimm, Erichsen, Brockhoff* 1994, 364-365).
- ¹¹ In 1543 he charged for nine views of Wolfenbüttel on parchment (9 *ausgestrichene unnd illuminierte pergamenen Wulfenbeutel*, app. II, 254).
- ¹² Koller 1984, 287-288; Campbell, Foister, Roy 1997 B, 25; Kühn 1977, 157-158; Campbell 1990, 85; Heimberg 1998, 49-52. Cf. also Ainsworth 1999.
- ¹³ Heimberg 1998, 49.
- ¹⁴ Koller 1999, 40.
- ¹⁵ Heraclius (*Ilg* 1873, III:XXIV); Theophilus (*Ilg* 1874, I., XVII); Straub 1984, 147-148; Fuchs, Meinert, Schrempf 2001, 82.
- ¹⁶ Campbell 1990, 85.
- ¹⁷ Examination of Dürer's Munich *Virgin with the Pink* revealed that a piece of animal skin was glued on a panel before the painting process began (Goldberg, Heimberg, Schawe 1998, 431).
- ¹⁸ Köhler 1973, 29.
- ¹⁹ Conservation report (Gm 1570) in the Germanisches Nationalmuseum in Nuremberg (unpublished).
- ²⁰ Dendrochronological examination by Klein 1990: with a minimum storage time of two years for the wood, the picture could have come about from 1502 onwards (*Schade, Schuttwolf* 1994, 18).
- ²¹ Museum der bildenden Künste Leipzig 1993/94, 61.
- ²² Cf. Berger 1912, 210; Montalbano et al 1998, 55; Fuchs, Meinert, Schrempf 2001, 35-51.
- ²³ Bartl, Gärtner 1998, 135; Gronau 1972, II, 187; Möller, A., 'Conservation and Analysis Report of 27.05.97' (unpublished). Whereas in the course of microscopic examination of losses in the paint layers, Gronau and Möller were unable to detect any preparatory layer, Neelmeijer and Wagner, using PIXE/RBS, instead determined a ground layer containing calcium salts and lead white. However, when they examined the *Fourteen Helpers in Need* (c.1505/07), the method that they had used, by comparison with examination of cross-sections to establish information about preparatory and undermodelling layers, proved unreliable, thus casting doubt on the results of this analysis (for information on the method of examination cf. Wagner, Neelmeijer, Schramm 1994).
- ²⁴ Heimberg 1998, 49.
- ²⁵ Mairinger 1999, 65-67.
- ²⁶ Heimberg 1998, 49. On Altdorfer's *Landscape with a Footbridge* instead exists a thin chalk ground (Gettens, West Fitzhugh, Feller 1974, 178) and Gossaert's *Elderly Couple* painted on parchment has a lead white ground (Campbell, Foister, Roy 1997 B, 25).
- ²⁷ Kühn 1977, 159.
- ²⁸ Bartl, Gärtner 1998, 348, 384.
- ²⁹ Cf. Marijnissen, Voorde 1985.
- ³⁰ Cf. Rosenberg 1960, 19-20.
- ³¹ Köhler 1973, 28.
- ³² Assessments of this work differed greatly in the past: whereas there is no doubt in Flechsig's mind that it was done by Cranach, Grimm rejects this notion. Cf. Flechsig 1900; Köhler 1973, 29; Grimm (*Grimm, Erichsen, Brockhoff* 1994, 342).
- ³³ Bartl, Gärtner 1998, 135; Analysis Report in the Germanisches Nationalmuseum, Nuremberg (unpublished).
- ³⁴ Gronau 1972, II, 182-183; Möller, A., Conservation and Analysis Report (unpublished).
- ³⁵ Munich, Bayerische Staatsgemäldesammlungen, Inv.-No. 12475. Cf. Erichsen (*Grimm, Erichsen, Brockhoff* 1994, 362-363).
- ³⁶ Washington, private collection; Erichsen 1994 B, 183, 362 - 363.
- ³⁷ Schade, Schuttwolf 1994, 19.
- ³⁸ Schade, Schuttwolf 1994, 19.
- ³⁹ Möller, A., Conservation and Analysis Report (unpublished).
- ⁴⁰ Private collection, cf. Koeplin, Falk 1974, 301.
- ⁴¹ Cf. Dülberg 1990, 188-189. The painting of the coat of arms of the *Portrait of a Man* (FR 62) is no longer part of the panel but is exhibited next to the portrait.
- ⁴² *Liber illuministarum* (Berger 1912, 196).
- ⁴³ Sieveking, (*Grimm, Erichsen, Brockhoff* 1994, 364-365).
- ⁴⁴ Oltrogge, D., *Eine Lochpause aus dem Cranach-Umkreis. Zeichen- und Übertragungstechnik*, Paper presented at the colloquium *Unsichtbare Meisterzeichnungen auf dem Malgrund - Cranach und seine Zeitgenossen*, Wartburg, 27-28 February 1998 (unpublished). Written summary of the results of the examination of 13 November 1998 (unpublished).
- ⁴⁵ Cf. Andersson (*Grimm, Erichsen, Brockhoff* 1994, 208-217).
- ⁴⁶ Schade 1961/62; Grate 1961, 30-37; Erichsen (*Grimm, Erichsen, Brockhoff* 1994, 358-361).
- ⁴⁷ Cf. Montout 1994.
- ⁴⁸ Truro, The Royal Cornwall Museum, Truri 1824.4, cf. Erichsen 1994 B, 183, 364.
- ⁴⁹ Cf. Holbein the Younger *Portrait of Benedikt von Hertenstein*,

oil on paper laid down on wood, New York, The Metropolitan Museum of Art, Inv.-No. 1497/98-1543.

⁵⁰ London, British Museum, Solane 15218-19.

⁵¹ London, British Museum, Solane 1896-5-11-1.

⁵² Le Chanu, Eveno, Laboratoire de recherche des musées de France, analysis report No. 3210, unpublished; cf. Montout 1994, 14-15.

⁵³ Cf. Montout 1994, 17.

⁵⁴ Bünsche 1990.

⁵⁵ Vinci (*Ludwig, Herzfeld* 1925, 18).

⁵⁶ Komanecky et. al 1998, 136-139; Koller 1984, 298-299.

⁵⁷ Bünsche 1990, 202-209.

⁵⁸ Cf. Schuchardt 1851, I, 27-35.

⁵⁹ Hambrecht 1995, 351; Lücke 2004, 37.

⁶⁰ Hambrecht also presumes that there are wall paintings by the young court painter in the castle at Heldburg to which he could have travelled from Coburg. Since no close examination of these paintings has yet been undertaken this attribution has not been confirmed (Hambrecht 1995, 359).

⁶¹ Cf. Schade 1974, 50.

⁶² Cf. Schade 1974, 47; Kaiser, Möller 1975, 127.

⁶³ Schade, 1974, 47; Findeisen, Magirius 1976, 162; Noll-Minor 1996, 209-217. This does not exclude the possibility that further fragments survive in other locations.

⁶⁴ Noll-Minor 1996, 211. Following further examination, Noll-Minor revised her original assumption that the yellow mordant contained massicot (PbO), Noll-Minor, M., personal communication, 7 June 1999.

⁶⁵ Noll-Minor 1996, 213.

⁶⁶ Schmidt 1998, 120-121.

⁶⁷ 'Die lilienähnlichen Blattschwünge sind durch Ringbänder miteinander verbunden. Um eine illusionistische Kugel in der Ornamentmitte ordnet sich ein doppelt gespiegeltes Blattwerkornament. Die Deckenmalerei ist eine Aneinanderreihung solcher großflächigen Ornamentfüllungen innerhalb rechteckiger Rahmen. In den Modellierungen der Tiefen des Blattwerks finden sich rote und grüne (Malachit) Malfarben' (Schmidt 1998, 122).

⁶⁸ Noll-Minor 1996, 211.

⁶⁹ Schmidt 1998, 120.

⁷⁰ Bruck 1903, 25-26; Ruhmer 1963, 19; Grimm 1994, 27.

Chapter V

Workshop organisation

Contracts, commissions and marketing

¹ *Wer ein Bildwerk zu einem festen Preis macht [...] kümmert sich mehr um die Vollendung als um die Schönheit. Wer aber seine Entlohnung gemäß der Schönheit erwartet, sorgt sich mehr um die Schönheit, als um die Schnelligkeit der Ausführung.* Extract from a sermon by Jacob of Lausanne, †1321 Schönbach, *Miszellen aus Grazer Handschriften. Mitteilungen des historischen Vereins für Steiermark.* (1900) 156ff (Huth 1923, 29).

² Hambrecht 1995.

³ In his notes (1556), Gunderam refers to 1504 as being the year Cranach was appointed (Lüdecke 1953 A, 84).

⁴ Luther (*Kirn* 1925, 130).

⁵ Cf. Koch 1954/55.

⁶ Cf. Warnke 1993.

⁷ Koepplin, Falk 1974, 74.

⁸ *Rachfabl* 1906, II, 108.

⁹ Scheurl 1509 (*Schuchardt* 1851, I, 30); Gunderam 1556 (Lüdecke 1953 A, 86).

¹⁰ Cf. Dihle 1930, 127-137, 152-156.

¹¹ Marx 1989, 81.

¹² Bruck 1903, 103-104.

¹³ There are, for example, portraits of Elector Friedrich III the Wise and Johann the Steadfast on the large retables for *St. Johannis*, Neustadt/Orla (1511-13, FR 47A) and *St. Katharinen*, Zwickau (c.1518, FR 64D).

¹⁴ Cf. Tacke 1992, 11-15, 72; Tacke 1994, 51-66.

¹⁵ Amongst others, the tradesmen Heinrich Ackermann from Frankfurt and Raymund Fugger from Augsburg owned Cranach paintings (Zülch 1935, 311; Busch 1973, 85).

¹⁶ Jacobs 1989.

¹⁷ Cf. FR 11, 18, 19, 20 et al. (no serpent); FR 23, 60, 61, 97, 189, 190, 312, 313 et al. (serpent)

¹⁸ In 1553, Johann Friedrich I decreed that Peter Gottland 'should be responsible for supplying the paint for all pictures, at his own expense' (...*die farbe zu allem mahlen uff eine gosten selbst zu verschaffen schuldig sein sollte*), *Schuchardt* 1871, 93.

Studios

¹ Scheurl 1509 (*Schuchardt* 1851, I, 34).

² Cf. Plinius XXXV, 69-71.

³ Cf. Saran 1972 A, 211-213; Saran 1973, 107; Dunkerton et al. 1991, 140; Carl 1987, 373; Campbell 1998, 24-25.

⁴ 'Christophori Scheurli I.U. *Doctoris libellus de Sacerdotum ac rerum ecclesiarum prestantia* etc.' (*Schuchardt* 1871, 76).

⁵ Cf. Plinius XXXV, 71. He refers to Alexander's regular visits in the workshop of Apelles.

⁶ Lücke 1998, 11-59; Großmann 1998, 61-118; Lücke 2004, 39-40.

⁷ Großmann 1998, 114-115.

⁸ Cf. Dürer writing to Jacob Heller on 24 August 1508 (*Faensen* 1963, 98): 'My only regret is that winter has come on so soon that days become short and one cannot do very much.' (*Mir ist nur leid, dass mich der Winter so bald überfällt. Werden die Tag kurz, dass Einer nit viel kann machen.*)

⁹ Lücke 1998, 14-21; Lücke 2004, 42.

¹⁰ Großmann 1998, 80.

¹¹ Großmann 1998, 72.

¹² Grimm 1994, 42.

¹³ Großmann 1998, 63.

Partnership and workshop members

¹ Cf. Oellermann 1995, 170-180.

² Also sent a considerable number of portraits which the carpenter had carved in wood and which were casted in silver' (app. II, 189). Meister Hans von Amberg worked for Elector Friedrich III on several occasions, painting, carving and working as a carpenter. Similarly, Claus Heffner who worked at the court, was a carpenter and woodcarver (cf. Bruck 1903, 67-68, 121-122).

³ This panel is probably the predella of the vast *Altarpiece of St Anne and the Fourteen Helpers in Need* in the entrance to the choir of the Marienkirche in Torgau. The altar was donated by Elector Friedrich III the Wise and Johann the Steadfast, and was dedicated on 19 July 1505. According to Friedländer, Rosenberg 1978, 69, it is conceivable that the altarpiece was executed c. 1507. Cf. also Ritschel 1995, 40-53.

⁴ Cf. Bruck 1903, 243-246.

⁵ Cf. Bruck 1903, 67, 261, 263.

⁶ Cf. Bruck 1903, 247; Findeisen, Magirius 1976, 203.

⁷ Hans Wurffel, described by Lücke 1994, 61, as a carpenter or cartwright, was in fact a blacksmith (app. II, 68).

⁸ This payment order is followed by one for '10 floren for the two panels in the *saalstube*, the Virgin Mary and Lucretia which he [Cranach] made at Wittenberg' (app. II, 206).

⁹ 'Item den malern ist vergönnt und zugeben, das sie in ire heuser schreiner gesellen nemen und inen geheuse, tafeln and anders, zu irem hantwerk dienende, in irer coste arbeiten lassen mögen.' act. feria 2a Kyliani (8 July) [14]82. Nuremberg Council records vol. 3, fol. 201b. (*Gümbel* 1922, 284, Footnote 116).

¹⁰ Klein 1994 A, B; Klein 1998, 1999.

¹¹ Straube 1981, 258-259.

¹² Cf. Verougstraete-Marcq, Schoute 1989.

¹³ According to Straube there were four carpenters working in Wittenberg in 1542. At the same time, Cranach employed only two journeymen, two apothecaries, a taverner and three maids. This information, together with the observation that the production of paintings and especially those on standard-sized panels was in decline in the second half of the 1530s, could indicate that the workshop had been restructured yet again. Cf. Straube 1985, 181.

¹⁴ Cf. Koeplin, Falk 1974, 132, 335-336; Timann 1994, 201.

¹⁵ Cf. Schade 1974, 47; Schädler 1987, 45; Bierende 2002, 111-121.

¹⁶ Koeplin, Falk 1974, 335, 336.

¹⁷ Koeplin, Falk 1974, 336.

¹⁸ Cf. Baader 1860, 38-38; Michaelson 1900, 271.

¹⁹ 'Christophori Scheurli I.U. *Doctoris libellus de Sacerdotum ac rerum ecclesiasticarum prestantia etc.*' (*Schuchardt* 1871, 76).

²⁰ Cf. Winkler 1924.

²¹ Cf. Thiele 2002.

²² Cf. Sandner 1993, 146-148.

²³ Schade 1974, 63, 382, Footnote 289; The shutters of the altarpiece were stolen in 1979, cf. Institut für Denkmalpflege, Arbeitsstelle Halle 1983, 497.

²⁴ Cf. Tacke 1992, 228-229.

²⁵ The technical characteristics of the supports of the shutter paintings of the retable in Kade indicate that they were produced in the Wittenberg workshop. The sculptures are, however, clearly inferior in quality to those of the *Neustadt Altarpiece* and lead to the assumption that they were carried out by another woodcarver. As a result of different technical features the shrine of the Brandenburg retable was in all probability not produced in the same carpenters' workshop where the *Neustadt Altarpiece* was made. Hentschel also attributed the alabaster statues of Elector Friedrich III the Wise and Johann the Steadfast in the Schlosskirche at Wittenberg to the craftsman who carved the former altarpiece in St Nicholas Church in Grimma. (Hentschel 1951, 71-100; Sandner 1993, 146).

²⁶ Kiesewetter (*Sandner* 1993, 45).

²⁷ Cf. Koch 1954/55, 188.

²⁸ Cf. Bruck 1903, 242, 253.

²⁹ 'Deinde statua illa principis Torgae posita lignea est. Vidi eam in Domo Lucae, antequam pingeretur.' Martin Luther (1545) in a letter to Spalatin (*Schuchardt* 1871, 77).

³⁰ Cf. Rosenfeld, Zindel 1993, 311-322.

³¹ Dürer writing to Jakob Heller on 28 August 1507 (*Rupprich* 1956, 64); Cf. Burmester, Krekel 1998 A, 59.

³² Huth 1923, 89, Footnote 19; Hasse 1976, 34, Footnote 19.

³³ Hasse 1976, 34.

³⁴ Hasse 1976, 34.

³⁵ Hasse 1976, 34.

³⁶ Huth 1923, 60.

³⁷ Michaelson 1902, 5.

³⁸ Emmendorffer 1998, 228.

³⁹ Erichsen (*Grimm, Erichsen, Brockhoff* 1994, 235).

⁴⁰ Hamburgische Stadtrechnungen - Libri expositorum (*Schuchardt* 1871, 125-127).

⁴¹ Ost 1993.

⁴² Emmendorffer 1998, 226-228.

⁴³ Evidence for the canvases being primed in his own workshop is provided by the invoice for '20 groschen for 3 bushels of flour

to strengthen the canvases'. Cf. chapter III.

- ⁴⁴ Schade 1972 B; Schade 1974, 45.
⁴⁵ Schade 1972 B, 149.
⁴⁶ App. II, 159, 253, 265-267, 272 et al.
⁴⁷ Cf. Schade 1974, 45; Koch 1954/55, 187-188.
⁴⁸ Emmendorffer 1998, 224.
⁴⁹ Cf. Kirby 1999, 7-8.
⁵⁰ Cf. Wetering 1986, 55.
⁵¹ Wiesbaden, Museum, Inv.-No. M26; Cf. Emmendorffer 1998, 206.
⁵² Cf. Emmendorffer 1998, 213.
⁵³ Ehlers 1919; Emmendorffer 1998, 206, 213.
⁵⁴ The width of the board (33.1 cm), the thickness (1.25 cm), a rebate, and the reverse are similar to other works of this period (cf. chapter II). Another example would be the portrait of Magarethe von Ponickau (1536, FR 349B), signed 'Zc'. This portrait is painted on a beech wood panel typical for the Cranach workshop at the time (cf. Kolb 2005, 492).
⁵⁵ Emmendorffer 1998, 224.
⁵⁶ Klein 1994 A, 200.
⁵⁷ Cf. Hellwag 1924, 157-161.
⁵⁸ Schuchardt 1871, 126.
⁵⁹ Cf. Ehrenberg 1899, 199, No. 480.
⁶⁰ Surviving guild regulations give indications for normal practice at other places (cf. Stock 1993, 47-53). Since Cranach was court painter there could have been different forms of specialisation in his workshop.
⁶¹ Schade 1974, 405, No. 71-78.
⁶² Stock 1993, 47-48.
⁶³ Huth 1923, 15. For further details on the inconsistent usage of the terms *geselle* and *knecht*, cf. also Hellwag 1924, 174-185.
⁶⁴ The helpers (*knechte*) employed by Friedrich Maler, who was court painter between 1503 and 1505, received the same wage of half a *gulden* per working week. Cf. Gurlitt 1897, 47.
⁶⁵ There is nothing to confirm the view held by Schade 1974, 45, that the majority of these journeymen stayed at least two years in the Wittenberg workshop. To date, there has only been evidence that Jobst Steter stayed between August 1535 and 1537.
⁶⁶ A few of them may have been apprentices who had just completed their apprenticeship in Wittenberg. In Hamburg and Lübeck, for example, the carpenter apprentices had to stay on one more year in the master's workshop.
⁶⁷ Grimm 1998, 67.
⁶⁸ Straube 1985, 181. It is not clear whether in his comment, written for King Christian III of Denmark five years after Lucas Cranach the Elder's death, Georgius Maior made a distinction between journeymen and helpers. 'As result Lucas always has some six or seven skilled journeymen painters around him' (*So hat auch Lucas geschickter malergesellen stets ein sechs oder sieben bei sich...*), Schumacher 1758, 234. Cf. also the reference 'Lucas Maler with many of his journeymen' (*Lucas Maler mit etlichen seinen gesellen...*) in a letter by the so-called *adel gesel-*

len-students of 14 July 1520 (Scheidig 1953, 164).

- ⁶⁹ Huth 1923, 89, Footnote 19; Cf. Weilandt 1993, 378-379.
⁷⁰ Emmendorffer 1998, 203-228.
⁷¹ Emmendorffer 1998, 207-209.
⁷² Emmendorffer 1998, 209.
⁷³ By contrast, the panel *Christ and the Woman Caught in Adultery* (1521), Wallraf-Richartz Museum - Foundation Corboud, Cologne, Inv.-No. 530, attributed to Vogtherr does not show this kind of preparation (cf. Krischel 2003, 18-22).
⁷⁴ Cf. Emmendorffer 1998, 207-208.
⁷⁵ The name Hans occurs frequently in the books of accounts. It presumably refers to several painters. Cf. Bruck 1903, 129-133; Koch 1954/55, 188.
⁷⁶ Cf. Gurlitt 1897, 50; Bruck 1903, 120.
⁷⁷ Cf. Gurlitt 1897, 52; Lücke 1998, 26.
⁷⁸ For information on the painters in the employ of Elector Friedrich III cf. Gurlitt 1897; Bruck 1903, Grossmann 1975, 121-131 and Ludolph 1984, 101-110.

Artistic co-operation and exchange in panel painting

- ¹ Gunderam 1556 (*Lüdecke* 1953 A, 84)
² Koepplin, Falk 1974, 1976; Grimm, Erichsen, Brockhoff 1994; Sandner et al. 1998.
³ Schade 1972 A, 10.
⁴ Koepplin (*Koepplin, Falk* 1974, 37).
⁵ Erichsen 1994 A, 153.
⁶ Grimm 1994, 29, 37. In addition, further authors commented on this question: thus Wirth: '*supposer plusieurs mains, le maître tracant les contours, exécutant l'incarnat, le paysage du fond, puis abandonnant à d'autres le remplissage des bosquets et des sols*' (Wirth 1977, 85) and Bonnet: 'there were even painters specialising in heads and painters specialising in the body' (Bonnet 1992, 268). Technical examinations have so far not been able to confirm these assertions.
⁷ The complexity of this relationship has been examined elsewhere (cf. Wetering 1986, 61; Campbell 1998, 422-425 et al.).
⁸ Cf. Sandner et al. 1998, 231.
⁹ FR 47A, 39, 64D et al.
¹⁰ Grimm 1994, 34.
¹¹ Woermann 1900, 32.
¹² FR 63, 150, 285D, 353 et al.
¹³ FR 17, 28, 99, *The Virgin and Child*, Oslo, Nasjonalgalleriet, NG.M.173 (cf. Nasjonalgalleriet Oslo 1998, 305).
¹⁴ Cf. 1525: FR 168, 185, 199, *Lucretia*, Staatsgalerie Aschaffenburg, Cat. No. 13256; 1526: FR 176, 178, 189D, 191, 210, 294, 296, 304, 305, 306, 311, 311B et al.
¹⁵ According to dendrochronological findings the earliest that a portrait of Luther, dated 1533, can have been painted is 1536 (cf. Klein 1994 A, 199-200).
¹⁶ Cf. Ladendorf 1953, 184.
¹⁷ Cf. Friedländer, Rosenberg 1978, 66-68; Grimm (*Grimm, Erichsen, Brockhoff*, 1994, 371); Grimm 1998, 81.

- ¹⁸ Cf. Grimm (*Grimm, Erichsen, Brockhoff*, 1994, 371); Grimm 1998, 67-82.
- ¹⁹ Schuchardt 1851, I, 120.
- ²⁰ Grimm 1998, 67.
- ²¹ Erichsen 1997.
- ²² Sandner 1998 B, 93.
- ²³ Grimm (*Grimm, Erichsen, Brockhoff* 1994, 371). There is, however the portrait of Johann Friedrich I the Magnanimous (1509) amongst these works although, as far as this picture is concerned, it has as yet not been possible with the help of infrared technology to detect any underdrawing.
- ²⁴ Grimm attempts, for example, to determine Lucas Cranach the Elder's own hand in the *Princes' Altarpiece* (c.1510) from over-cleaned and retouched contour lines. Cf. Grimm 1998, 77-80.
- ²⁵ Grimm (*Grimm, Erichsen, Brockhoff* 1994, 371).
- ²⁶ Cf. Bonnet 1992, 247-248, 256, 263-264 and also Bierende 2002, 24-32, 219-223.
- ²⁷ A contract with Adam Krafft dated 1493 expressly states that the foot of the *Sakramentshaus* was 'not to be worked in too grand a manner' (*werklich doch nicht kostlich*) as it would 'almost not be seen'. By contrast the staircase was to be 'worked subtly' (*subtil wercklich*) as it would after all been seen. (*Huth* 1923, 56).
- ²⁸ An illustration from the Spalatin Chronicle (c.1530) shows a painting, *Christ and the Woman Caught in Adultery*, in a gilded frame hanging above a high door arch (cf. Grimm, Erichsen, Brockhoff 1994, 216, fig. A163). See also chapter II, p. 225).
- ²⁹ Schade 1961/62; Schade 1972 A; Schade 1974, 49; cf. also Michaelis 1989/90, 122-125.
- ³⁰ Erichsen 1994 B, 180-185.
- ³¹ Tacke 1994, 51-66.
- ³² Montout 1994.
- ³³ Hanover, Kestner-Museum.
- ³⁴ Elector Friedrich III the Wise sends Duke Georg of Saxony a 'pattern for a small panel' (*müster zu den tefflein*, app. II, 73).
- ³⁵ Rosenberg 1960, 20-21; Koepplin, Falk 1976, 477-479.
- ³⁶ Tacke 1994, 66.
- ³⁷ Tacke 1994, 65.
- ³⁸ Tacke's assertion that a journeyman, rather than Cranach himself, was responsible for these important changes might help to clarify any analysis of the underdrawings yet to be undertaken.
- ³⁹ *St Anthony*, Cambridge (Mass.), Fogg Art Museum, cf. Rosenberg 1960, No.10; *The Martyrdom of St Julian*, Weimar, Staatliche Kunstsammlungen, cf. Rosenberg 1960, No. 41; *Christ Blessing the Children*, Leipzig, Museum der Bildenden Künste, cf. Sandner 1998 A, 60; Bünsche 1990, 204; *Thief on the Cross*, Erlangen, Universitätsbibliothek, cf. Tacke 1994, 197.
- ⁴⁰ Cf. Bomford 2002, 23; Kirsch 2004, 202-215.
- ⁴¹ Montout 1994.
- ⁴² Schade 1961/62; Schade 1972 A.
- ⁴³ Cf. Schade, Schuttwolf 1994, 18-19.
- ⁴⁴ Erichsen recognises a copy of a detail taken from a painting *Three Graces* in the *Heads of Three Girls* in Truro, Royal Institute of Art, Inv.-No. 1824.4. This sheet could well have been used as a pattern for the preserved painting of the *Three Graces* (FR 251A). Erichsen 1994 B, 183, 364.
- ⁴⁵ Cf. the dog in FR 34 and FR 73; the head of John the Baptist and Holofernes in FR 32, 33, 73, 230, 231, 232 et al. or the *Studies of Wildfowl* in Dresden, Kupferstich-Kabinett with FR 272-275 and FR 290 (cf. Grate 1961; Schade 1961/62; Schade 1974, 49).
- ⁴⁶ Emmendorffer 1998, 213.
- ⁴⁷ Emmendorffer's attempt to re-date the work of the master at 1520 is not convincing in terms of style and technique. For instance, no comparative examples of this kind of intense brushing and stippling application of flesh paint can be found after 1512 (cf. Couto, Valadares 1938, figs 15, 16).
- ⁴⁸ Koepplin (*Koepplin, Falk* 1974, 13); cf. Tacke 1994, 81; Hinz 1994.
- ⁴⁹ Cf. Lübbecke, Bushart 1985, 70-71. Two further barely distinguishable variants held in the Bayerische Staatsgemäldesammlungen (WAF 187 and 189) are mentioned here.
- ⁵⁰ JAPS Collection, Mexico (Christie's, 8 July 1994, lot 91; mentioned by Koepplin, Falk 1976, 548, as being at Cassirer's in Amsterdam).
- ⁵¹ Cf. also FR 132 and 132B.
- ⁵² The Berlin version measures 51.3 x 37.7 cm and the one in Mexico 67 x 57.5 cm.
- ⁵³ Cf. also FR 74 and FR 74A (Löcher, Gries 1997, 130-131); FR 131 and FR 131A as well as FR 131B (Drecks 1954, 22-25); FR 132 and FR 132B; FR 230 and FR 230A.
- ⁵⁴ The head of Martin Luther (c.1532), in a private collection in Scotland, is painted on parchment according to catalogue details. Cf. Witt Library, London, File No. 173 and Schade 1974, 49, Footnote 316. Details have yet to be examined.
- ⁵⁵ Cf. Montout 1994; *Grimm, Erichsen, Brockhoff* 1994, 338-344.
- ⁵⁶ There were also many other portraits on altarpieces now lost. Cf. Köhler 1794; Schuchardt 1851, I, 45; Rossmann 1876, 51; Michaelson 1900, 281.
- ⁵⁷ Only the portraits on the panels in Copenhagen and Karlsruhe and the fragments of the retable in Coburg are drawn to a similar scale. However, various differences make it unlikely that they were transferred by means of tracing. Also the portrait painting in Nuremberg (FR 64A), alluded to as a later copy, differs in scale from the other versions.
- ⁵⁸ Reims, Le Musée des Beaux-Arts; Inv.-No. 795.1.274; cf. Zimmermann 1942, 36; Montout 1994, 57-59.
- ⁵⁹ Vienna, Graphische Sammlung Albertina, Inv.-No. 26.156 and FR 316.
- ⁶⁰ Reims, Le Musée des Beaux-Arts; Inv.-No. 795.1.273; cf. Montout 1994, 53-55 and Wittenberg, Lutherhalle; Inv. - No. G89.

⁶¹ Cf. FR 312-313A-F, 338B;

⁶² Comparison with the version in Dresden (FR 311) has yet to be undertaken. Cf. Schade 1972 A, 8-9. The X-radiograph of the portrait in Otterlo (FR 311B) reveals that here, too, the painter used a pattern without headgear and covered the forehead with a black cap only at an advanced stage of painting. The dendrochronological investigations by Klein also show that the portraits of Martin Luther were not only produced from portrait studies but that also paintings including dating were copied. Cf. Klein 1994 A, 199-200.

⁶³ FR 311A, 311B, 312A, 313A et al. Cf. Schade 1972 A, 8; Erichsen 1994 B, 184.

⁶⁴ London, The British Museum, Solane 5218-19; 1896-5-11-1; Vienna, Graphische Sammlung Albertina, Inv.-No. 26.156 and Reims, Le Musée des Beaux-Arts, Inv.-Nos. 795.1.266-278 (cf. Montout 1994).

⁶⁵ Within this study it was not possible to investigate whether there are traces of black pigment on the reverse. Cf. Grimm (Grimm, Erichsen, Brockhoff 1994, 341-342).

⁶⁶ Nuremberg *Kunstbuch* (Ploss 1960, 76).

⁶⁷ Boltz von Ruffach 1549, 117-118. Cf. Kirsch 2004, 184-219 and chapter II, pp 105-112.

⁶⁸ In 1994 Sandner, Ritschel and Erichsen suspected the existence of pouncing dots on the panel showing the *Virgin and Child with Saints* (1516). Sandner corrected this assumption in 1998 (Sandner 1998 A, 60). The examples published by Bünsche (see below) are not convincing (Bünsche 1998 A, 1998 B). Despite lack of evidence, the use of the technique in the Cranach workshop cannot be discounted. It has been possible to prove the use of pouncing on the panel *Christ and the Woman Caught in Adultery* painted in Lubeck by Cranach's pupil Hans Kemmer (Sandner 1998 B, 95, 229, 230).

⁶⁹ Bomford 2002, 23.

⁷⁰ Cf. Riemann 1980, 118; Erichsen 1994 B, 185; Bünsche 1998 B, 30; Kirsch 2004, 254-257.

⁷¹ Oltrogge, D., written summary of the technical examination of 13.11.1998; cf. Grimm, Erichsen, Brockhoff 1994, 364-365.

⁷² Cf. Sandner, Ritschel 1994 and Sandner 1998 A, 60.

⁷³ Cf. Sandner et al. 1998, 130-139.

⁷⁴ Bünsche 1998 A, 63, figs 8.2. and 8.3. with attached scale.

⁷⁵ A summary of this contribution was published first (Heydenreich 1997, 2000).

⁷⁶ Cf. Dornhöffer 1904, 179; Loßnitzer 1913, 13; Kaemmerer 1931/32, 193-194; Michaelson 1902, 26; Rudloff-Hille 1953, 7-8; Mahn 1972; 274-277; Friedländer, Rosenberg 1978; 68-69; Marx 1996, 18-39; Marx 1997.

⁷⁷ 'Magdalena Görlitz, 21 years old, 1532, half-length portrait, 0.42m.h., 0.34m.w.', *Katalog der im Germanischen Museum befindlichen Gemälde* (1882) 30, No. 498. Now: 'Portrait of a Bride, attributed to Lucas Cranach the Elder' (Löcher, Gries 1997, 160-161).

⁷⁸ Cf. Albrecht Dürer, *Portrait of the So-called Fürlegerin* (1497), Berlin, SMBPK, Gemäldegalerie.

⁷⁹ Strauß, Kamlah, Wagner, *Unbekannt 16Jhrd., Porträt der Magdalena von Buritz, Inv. Nr. Gm 614. Zusammenfassung der Dokumentation anlässlich einer Ausstellung von restaurierten Objekten im Germanischen Nationalmuseum Nürnberg*, (1988) unpublished.

⁸⁰ The panel measures 42.1 x 33.7 cm and it varies in thickness between 5 and 9 mm.

⁸¹ Kneschke 1860, II, 163-164; Muehlfeld 1822, 48. Searches with regard to Magdalena von B[G]u[ü]ritz in the Deutsche Zentralstelle für Genealogie in Leipzig, in the Österreichisches Staatsarchiv, Haus-, Hof- und Staatsarchiv and in the Wiener Stadt- und Landesarchiv remained inconclusive.

⁸² Two wings of the *Paumgartner Altarpiece*, 1613; *Jakob Muffel*, c. 1580, Nuremberg, Germanisches Nationalmuseum; *St. Jerome*, Kassel, Staatliche Museen; *Portrait of the So-called Fürlegerin*, Leipzig, Museum der bildenden Künste.

⁸³ The red material of the costume here is also moiré but is conspicuous by the red 'threads of brocade', pedantically drawn parallel to each other; they are missing underneath the arms, and the X-radiograph reveals that sections of the robe have been scraped out and re-modelled. The reason for this is not damage to or correction of the formation of the folds, but more likely closely connected to severe drying cracks. Such defects become apparent, particularly in the X-radiograph, in adjoining sections of the robe where the first application of paint is preserved.

⁸⁴ This was where Einhorn, who was not acquainted with the Nuremberg portrait, suspected a compression of the scenic motif of the catching of the unicorn to become a more static single group of woman and beast. In his view this occurred alongside two developments; that of the dynamic *similitudo* (for Christ's becoming flesh) and that of *passio* (for the lovers' passion). Cf. Einhorn 1976, 183.

⁸⁵ Cf. Riemann 1980, 116, fig. 2.

⁸⁶ There are also the drawings with the thieves on the cross, worked in black chalk or charcoal on paper tinted in pink, from Cranach's Viennese period (cf. chapter II, pp. 101-102).
⁸⁷ In this context, the *Portrait of a Man with a Spotted Fur Collar* (FR 58), which Koepplin and Falk date around 1508/10, is of particular interest (Koepplin, Falk 1974, 265, Tafel 10). Until now it has been regarded as Cranach's earliest surviving portrait painted against a monotone light blue background. The similarity between this portrait and a head directly above St Catherine's hands in the Dresden altarpiece also places these works in relationship, possibly also chronologically, with one another.

⁸⁸ Rieffel 1906, 272; Schade is reminded of Christoph Maler in the painting of the right wing of the altarpiece (Schade 1974, 382). Grimm perceives Cranach's personal contribution to the *Altarpiece with the Martyrdom of St Catherine* in the faces of

the men. In his opinion, the right inner wing was handed over to a member of the workshop, whose work can also be distinguished in terms of style from the assistant painting the left outer wing. (Grimm 1994, 34, 38).

⁸⁹ Mander 1604, fol. 242v.; Bomford 2002, 43.

⁹⁰ Cf. Brinkmann, Kemperdick 2005, 216-225.

⁹¹ Letters are worked into the necklace and bodice of St Cunigunde, St Dorothy, St Catherine and St Genevieve as well as in the bridle of two horses.

⁹² Cf. the figure of a unicorn in the coat of arms on a portrait of Hieronymus Tedenhamer, a copy of a painting by Lucas Cranach the Elder from c.1503, Vienna, Kunsthistorisches Museum, Gemäldegalerie. A unicorn was also part of the coat of arms of the Reuss family. (cf. Lübbecke 1991, 262).

⁹³ Scheurl 1509 (*Schuchardt* 1851, I, 30).

⁹⁴ Aware of this previously published study, Marx established, as a result of comparisons of motifs, that Cranach's intention was not to produce portraits of historical personages on the *Altarpiece with the Martyrdom of St Catherine*. Cf. Marx 1997, Marx 2005.

⁹⁵ Koeplin, Falk 1974, 1976; Schade 1974, 422-434; Marx 1997; Bierende 2002.

⁹⁶ Vienna, Gemäldegalerie der Akademie der bildenden Künste, Inv.-No. 579-581. The possibility cannot be discounted that there were different versions of the *Last Judgement*, one of which Cranach could also have studied somewhere else after his trip to the Netherlands (1508). Nevertheless, substantial similarities point to a direct study with Bosch's Vienna work. Until 1659, this was part of the collection in Vienna of Archduke Leopold Wilhelm, who was governor of the Netherlands in Brussels until 1656. The wooden support of the Cranach copy bears all the hallmarks of the Wittenberg carpenters' workshop and confirms its making after 1520. Cf. Michaelis 1989-90; Trnek, Fleischer 1988, 28-29 with indications for further reading.

⁹⁷ Following the death of Lucas Cranach the Younger in 1588, the *Seven Sorrows* by Dürer was removed from his effects and put in the 'Dresdner Kammer'. Cf. Koeplin, Falk 1974, 118; Goldberg 1994, 73-74. Schade also mentions that three paintings by Jacopo de Barbari were part of the Cranach estate (Schade 1974, 23).

⁹⁸ Grimm (*Grimm, Erichsen, Brockhoff* 1994, 342-443).

Count Philipp von Solms was one of the Saxon Elector's senior officials.

⁹⁹ Distinct parallel hatching for the modelling of the shadows can be found in the underdrawing of the retable in Schloss Mansfeld, attributed to Hans Döring by Schade 1972 B, 150. The modelling of the flesh tones matches that of the retable in Nieder-Weidbach, also attributed to Hans Döring. There is nothing in the available findings to confirm the attribution of the following works to Hans Döring: the portrait of Count Philipp von Solms in Schloss Laubach, also dated 1520 but not

signed (by Ehlers 1919, 7-8) or the portrait of a male in Rome, Galleria Spada by Löcher in 1998, 270-272, fig. 26.10.

¹⁰⁰ Although the choice of a standard format by the Cranach workshop points to the conclusion that the painter knew about the Wittenberg workshop practice, in fact, the differing cut of the boards and the lack of fibrous material covering the joins, as practised from 1514/15, are important indications of the production and preparation of the support outside Lucas Cranach the Elder's workshops.

¹⁰¹ The size and form of the eyes as well as the distance between the eyes and the mouth are identical on both drawings. The only difference on the painting is that the nose has been shortened and the beard has been cut shorter.

¹⁰² Emmendörffer suspects that Döring left the Wittenberg workshop in 1514 (Emmendörffer 1998, 206). The results of the investigations as set out in chapter V, p. 292, make it possible that he left at a later date. It is believed that Döring had been employed in Wetzlar since 1518.

¹⁰³ Benesch 1928, 77-89.

¹⁰⁴ Weinberger 1933, 10-11.

¹⁰⁵ Burke 1936, 31.

¹⁰⁶ Bierende 2002, 71-72, fig. 29.

¹⁰⁷ Madersbacher (*Rosenauer et al.* 1998, 178-179).

¹⁰⁸ Madersbacher (*Rosenauer et al.* 1998, 207).

¹⁰⁹ Vienna, Österreichische Galerie, Inv.-No. 4845, 4846; cf. Rosenauer et al. 1998, 207-211.

¹¹⁰ Cf. Benesch 1928, 77-89; Weinberger 1933, 10-11; Burke 1936, 31.

¹¹¹ Innsbruck, Tiroler Landesmuseum Ferdinandeum, Inv.-No. 1289; cf. Rosenauer et al. 1998, 216-217.

¹¹² Compare also the unusual aubergine colour apparent in *The Scourging of Christ* and in many of Cranach's works FR 11, 15, 132, 372 et al.

¹¹³ Cf. Pacher's *St Barbara* (c.1500) and Cranach's *Crucifixion* (c.1500) and *St Valentine* (c.1502/03).

¹¹⁴ Cf. Madersbacher (*Rosenauer et al.* 1998, 179).

¹¹⁵ Appropriate examination is left to future art historical research. Attention should be drawn for instance to the drawing of the thug on the left in the *Scourging of Christ* and the epileptic on Cranach's panel depicting St Valentine.

¹¹⁶ Cf. Koller 1998, 90; Sandner et al. 1998, 104-105, 119-221; Dunkerton, Foister, Spring 2000, 14.

¹¹⁷ Cf. Wolters 1938, 105, fig. 48 and Sandner, Ritschel 1994, 187.

¹¹⁸ Cf. Wolters 1938, 106-117.

¹¹⁹ E.g. Cranach's engraved golden haloes of St Valentine and St Francis in terms of motif and the use of materials match those on the panel depicting the *Betrothal of the Virgin* by Pacher. They can also be found used in the same way for example in the work of the Meister von Uttenheim (cf. Rosenauer et al. 1998, 127-172). Cranach and Pacher used fluorite, a pigment rarely found before, and a few years later,

painters such as Wolf Huber and Albrecht Altdorfer were using it (cf. Spring 2000, 20). Pacher and Cranach used grey under-painting derived from vegetable black and calcite for blue passages (cf. Koller, Wibiral 1981, 150-151).

¹²⁰ My thanks to Franz Maringer for the opportunity to peruse the results of his examination of Austrian panel painting. The relationship with Jörg Breu the Elder has yet to be investigated.

¹²¹ Cf. Bonnet 1992, 260; Erichsen 1994 B, 180-185; Marx 1997, 11-24. Cranach was obviously less interested in a study of the measurements and proportions (cf. Bonnet 1992, 247-248, 256, 263-264).

¹²² Koepplin (*Koepplin, Falk* 1974, 118).

¹²³ Erichsen (*Grimm, Erichsen, Brockhoff* 1994, 293); cf. also Marx 1997, 11-24. The close relationship between Dürer and Cranach is also documented in the fact that Anzelewsky 1999, 134-137 attributed the *Portrait of a Young Man* (Anton Neubauber?) to Cranach for stylistic reasons, while previously it had been ascribed to Dürer. However, technical examination provided no evidence that the portrait was painted by Cranach.

¹²⁴ Erichsen (*Grimm, Erichsen, Brockhoff* 1994, 293).

¹²⁵ The payment of 50 *gulden* to Lucas Cranach in Nuremberg in 1505, mentioned by Koepplin, Falk 1974, 112 with reference to Gurlitt 1895, 113 but with no further source detail (Flechsig 1900, 3, refers to the year 1504) could not be confirmed until now despite further perusal of the account books of the Wittenberg court.

¹²⁶ Cf. also the remarks on the application of tow in chapter II, p. 70. It needs to be demonstrated whether Wolgemut and Dürer also used silk fibres. Cranach could of course find out about other practices by studying finished paintings closely. Thus Dürer for example modelled the flesh tones of the portraits of Elsbeth and Felicitas Tucher mainly by stippled application of paint. This technique can be found on many pictures from the Wittenberg workshop. By comparison, Dürer's hatched highlights produced with the pointed brush were nothing like Cranach's working method. Only rarely did he model with a pointed brush, for example on the *Altarpiece of the Holy Kinship* (1509) and the *Princes' Altarpiece* (c.1510). Both artists used their fingers on their early works not only to disperse the glazes but also to give structure to the paint (cf. chapter II, p. 193).

¹²⁷ What is remarkable here is the underdrawing on the insides of the shutters of the *Paumgartner Altarpiece* (c.1498), which has been performed with great virtuosity and restricted to essential features. The underdrawing differs both from the centre panel and Dürer's other works and resembles Cranach's lively style of drawing (cf. Goldberg, Heimberg, Schawe 1998, 193, fig. 2.15, 191, fig. 2.23).

¹²⁸ Vienna, Kunsthistorisches Museum, transferred from wood to canvas, today c.99 x 87 cm. The painted surface of the *Martyrdom of St Catherine* measures c.108 x 92 cm. We also

know of the esteem in which Dürer's painting was held in Wittenberg; in 1548 it was stored in Cranach's house (app. II, 291).

¹²⁹ Commissioner and original location are not documented.

¹³⁰ A possibility for this would be the period between 21 October 1507 and 27 January 1508 when there is no evidence of Cranach working for the electorate court in Wittenberg. There is documentary evidence that he was in Nuremberg on 6 January 1508 for the bestowal of his personal coat of arms by Elector Friedrich III. He had not yet arrived in Nuremberg by 7 October 1508 on his return from the Netherlands and by 23 November 1508 he was working in Wittenberg again. Cf. Schade 1974, 403-404.

¹³¹ Cf. Grimm (*Grimm, Erichsen, Brockhoff* 1994, 300-301).

¹³² Cf. Sandner et al. 1998, 114-117, fig. 13.3b.

¹³³ Up to now there was no information available on the layer structure of Dürer's *Martyrdom of the Ten Thousand Christians* and the surviving fragments of the *Heller Altarpiece*.

¹³⁴ Madrid, Museo del Prado, Cat.-No. 2177, 2178, c.209 x 81 cm and 209 x 83 cm; cf. Bonnet 2001, 185-196; Schoen 2001.

¹³⁵ Besançon, Musée des Beaux-Arts et d'Archéologie, Inv.-No. 896.1.54, each 139 x 53.9 cm.

¹³⁶ Vienna, Albertina, Inv.-No. 17533, 42.2 x 22.6 cm; cf. Bonnet 2001, 201-204; Schröder, Sternath 2003, 373-376.

¹³⁷ Cf. also Dürer's earlier depictions of the same subject (Bonnet 2001; Schröder, Sternath 2003).

¹³⁸ Cf. Bonnet 1992, 249; Erichsen (*Grimm, Erichsen, Brockhoff* 1994, 299); Bierende 2002.

¹³⁹ Cf. Hentschel 1948, 39-40; Degen 1953, 198-199; Koepplin 2003, 66 et al.

Glossary

AEDICULAR

A niche or a small structure used as a shrine.

BARB

A raised lip of grounding material caused by its accumulation in the angle between the panel and the frame mouldings.

BEADING

The contraction of a line of paint or ink in a water-based binder into small drops or beads when it is drawn over an oily surface.

BEVELLING

Giving a sloped or slanted edge to a panel board in order to fit in a frame.

BOLE

A clay containing iron oxide used as the underlayer for metal leaf in water-gilding.

BUTTERFLY KEY

A butterfly-shaped piece of wood set into a panel, usually across a join between planks, for the purpose of reinforcing the join.

CRAQUELURE

A network of cracks in a coating layer, such as a ground, paint layer, or varnish.

CROSS-SECTION

By examining minute samples of the painting in cross-section under the microscope, the layer structure can be determined for that sample point. Cross-sections can be examined in reflected visible light usually at 100-800 times overall magnification. Supplementary information on the layer structure, pigments and binding media is yielded for example by ultraviolet illumination (fluorescence microscopy), analysis by EDX (q.v.) or FTIR microscopy (q.v.).

DENDROCHRONOLOGY

A technique used to date wood by matching the pattern of growth rings in the wood. This pattern of variation is due to variable growth conditions from one year to the next.

DIPTYCH

A painting or carving on two panels, normally hinged like a book.

ENERGY-DISPERSIVE X-RAY ANALYSIS (EDX)

A method of elemental analysis carried out in the scanning electron microscope (q.v.). Small areas of a sample, often a cross-section (q.v.), can be selected and analysed for their component elements.

FALSE-COLOUR INFRARED PHOTOGRAPHY (IRC)

A technique used to examine the distribution of certain pigments in paintings. A pigment with relatively little infrared reflectance such as azurite appears blue while ultramarine, for example, is converted into various shades of red.

FOURIER TRANSFORM INFRARED SPECTROSCOPY (FTIR)

A technique for the analysis of organic and inorganic compounds based on the absorption of infrared radiation. The resulting pattern of infrared wavelengths transmitted is processed mathematically using Fourier analysis.

FOURIER TRANSFORM INFRARED IMAGING MICROSCOPY (FTIR IMAGING MICROSCOPY)

A technique for the analysis of organic and inorganic compounds using a non-dispersive infrared imaging microspectrometer.

FOURIER TRANSFORM INFRARED MICROSCOPY (FTIR MICROSCOPY)

A technique for the analysis of organic and inorganic compounds using a Fourier transform infrared spectrometer coupled to an infrared microscope.

FRESCO

A wall painting, usually executed using colours applied to fresh and still-wet plaster.

GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GC-MS)

A combined technique for studying complex mixtures of organic materials, for example, paint media, on the molecular level. The sample products separated by gas chromatography are analysed by a mass spectrometer.

GLAZE

A layer of translucent paint.

GRISAILLE

French: from *gris*, grey. A painting executed entirely in shades of a single colour – not necessarily grey.

HALO

A disc, a ring or radial patterns of virtual light, usually represented in gold, around the head of a saint, angel or deity.

HATCHING

The use of a series of parallel lines.

HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY (HPLC)

A technique for the separation and identification of organic compounds of low molecular weight in which a liquid solution is forced through a column under high pressure.

IMPRIMATURA

An overall translucent toning of the ground, applied to the whole surface but with the possible exception of passages of water gilding or silvering.

INFRARED PHOTOGRAPHY (IR)

In infrared photography, an image is recorded in an ordinary camera using film sensitive to infrared radiation. An infrared photograph shows layers below the visible surface of a painting, especially carbon black underdrawings on a white ground.

INFRARED REFLECTOGRAPHY (IRR)

Infrared reflectography involves the use of a television-type tube camera with a special coating sensitive in the infrared region of the electromagnetic spectrum. At present, solid-state detectors are also being used. An infrared reflecto-

- gram, like an infrared photograph, shows layers below the visible surface of a painting, especially carbon black under-drawings on a white ground.
- LIGHT MICROSCOPY**
A technique to examine the painting's surface with a stereo light microscope usually at magnifications of 7 to 80 times with appropriate fibre-optic illumination. More powerful light microscopes are employed to examine cross-sections (q.v.) at magnifications up to 800 times.
- MAHLSTICK**
From German, *mahlen/malen*, to paint. A long stick, padded at one end, used by artists to steady the hand holding the brush.
- MODELLO**
An initial, often highly finished, version of a painting, usually made to be shown to the patron in order to indicate what is intended.
- OGEE MOULDING**
A strip (of wood) with a profile in the form of a letter S.
- OPTICAL EMISSION SPECTROSCOPY (OES)**
An earlier method for elemental analysis of sample material, yielding similar information to EDX analysis (q.v.).
- PANEGYRIC**
A formal or elaborate praise or eulogizing.
- POLIMENT**
An underlayer, usually of a reddish, yellow or black colour, for metal leaf in water-gilding (cf. bole).
- POUNCING**
Transferring a design by dusting a coloured powder through holes pricked along the outlines of a drawing on paper, parchment or other material.
- PUNCH**
A roughly cylindrical metal tool often with a decorative motif cut into one end. This motif is imprinted into a gilded ground by punching.
- PREDELLA**
Italian: literally, plinth, altar-step or dais. The long horizontal structure supporting the main panels of an altarpiece.
- PROTON-INDUCED X-RAY EMISSION (PIXE) AND RUTHERFORD BACKSCATTERING SPECTROMETRY (RBS)**
A combined technique for the identification of elements and their distribution in a material or sample. When a material is exposed to an ion beam, atomic interactions occur that give off electromagnetic radiation of wavelengths in the X-ray part of the electromagnetic spectrum specific to an element.
- RAINSILL**
The lower flat-sloped edge of a frame or a window. Sills derive from the window surrounds of Gothic architecture.
- REBATE**
A rectangular groove, or recess cut out of the edge of a panel.
- RETABLE**
Literally, behind the (altar) table. A structure above and behind an altar, often comprising both sculpted and painted elements.
- SCANNING ELECTRON MICROSCOPY (SEM)**
A technique capable of revealing fine details of sample material at magnifications up to 100,000x. The scanning electron microscope uses a beam of electrons to scan the sample under examination. This technique is frequently employed in combination with energy-dispersive X-ray analysis (q.v.) to identify component elements.
- SCOTIA**
A concave moulding used especially in classical architecture in the bases of columns.
- SGRAFFITO**
Literally, scratched. In painting, a technique in which paint is applied over metal leaf or other paint and then scraped away from specific areas to reveal the layer beneath.
- SOPRAPORTE**
Italian: over doors. Decorative elements over a doorway or doorframe, such as pictures or carved panels.
- STIPPLING**
In painting, the application of paint in short dabs or spots of colour.
- STRAINER**
A kind of chassis for mounting canvas that usually has rigidly joined corners, and therefore cannot be expanded.
- STRETCHER**
An expandable wooden frame or chassis on which an artist's canvas is fixed by pulling it tight and tacking it to the frame all the way round.
- TARGE**
A shield (variously shaped) used by infantry soldiers and in jousts.
- TOPOS**
Greek: a commonplace. Recurrent device or formula.
- TORUS**
A moulding of convex profile commonly occurring in the base of a column next above the plinth.
- TOW**
Coarse or broken fibrous material which could be vegetable fibres (flax, hemp et al.) or animal products (silk fibres, hair et al.).
- TRACING**
Copying by drawing over onto a transparent or translucent piece of paper, cloth, or other material. In order to transfer a drawing, the reverse of it or a backing sheet was blackened for example with charcoal dust and then laid over the ground in order to trace the outlines of the drawing with a stylus.
- TRIPTYCH**
A painting or carving consisting of, or mounted on, three attached panels; a common form for altarpieces.

TROMPE L'OEIL

French: deception of the eye; creating an illusion which fools the viewer into thinking he is looking at real rather than painted objects.

UNDERDRAWING

Preliminary drawing on the ground before the application of paint and gilding.

UNDERPAINTING

The first coat of paint applied to a prepared surface, preliminary to working-up.

WORKING-UP

Execution of the final stage of painting.

X-RAY DIFFRACTION ANALYSIS (XRD)

A technique for the identification of crystalline materials. The regular arrangement of atoms in the crystal scatters X-rays, producing a characteristic pattern.

X-RAY FLUORESCENCE SPECTROSCOPY (XRF)

A technique for the identification of elements in a material or sample. When a material is exposed to X-rays of high energy, interactions occur that can be detected by a fluorescence detector.

X-RAY RADIOGRAPHY

An imaging technique for the examination of paintings' supports, grounds and paint layers (brushwork, sequences of painting, changes in composition and condition). X-ray radiation passes through solid objects, but is obstructed to differing degrees by differing materials. The heavier the atoms of which the substance is made, the more opaque it is to X-rays.

Measurement and Coinage

There was no common system of measurement in sixteenth-century Germany. States and frequently even individual cities had their own system of weights and measures. There were also differences in the systems in use for individual trades.

WEIGHT

The following weights and subdivisions were adopted from the documentary sources given in appendix II.

1 *zentner* = 5 *stein* = 110 *pfund*

1 *stein* = 22 *pfund*

1 *pfund* = 2 *mark*

1 *mark* = 8 *unzen*

1 *unze* = 2 *lot*

The weight of the *zentner* varied according to location, goods and date.¹ In the sixteenth century, the Leipzig trade *zentner* was equivalent to about 51.4 kilograms, a Frankfurt *zentner*² had a weight of approximately 50.5 kilograms and a Viennese *zentner*³ around 56 kilograms. One *pfund* in Cranach's invoices for pigments was presumably equivalent to about 0.467 kilograms.

LENGTH

The principal unit of length in trade was the *elle*. Its length also varied significantly in relation to location, goods and date.⁴ According to the measurements given by Agricola (1550),⁵ the Leipzig *elle* was equivalent to 56.6 centimetres and the *handelle* of the Saxon Elector August from 1579 was 56.8 centimetres. Seven Wittenberg *ellen* were equated with eight Leipzig *ellen*.⁶ The Nuremberg *elle* is given with 65.5 centimetres and 66.1 centimetres.⁷ The Ulm *elle* was, according to drawings in sixteenth-century trade books, 67.2 centimetres in length and according to a documentation given by Johannes Kepler (1571-1630) it was equivalent to 59.85 centimetres.⁸ The St. Gallen *elle* for canvas was according to drawings in sixteenth-century trade books 78 centimetres, and in 1851 it was equal to 73.54 centimetres.⁹

COINAGE

The system commonly used for accounts was based on gold coins, the *rheinisch floren* or *gulden*. The silver coin *guldengroschen* was usually converted.

The following values of the units of currency were adopted from the documentary sources given in appendix II:

1 *floren* = 1 *gulden* (rheinisch) = 21 *groschen*

1 *groschen* = 12 *pfennig/denare*

1 *schock groschen* = 60 *groschen*

1 *pfennig/denar* = 2 *heller/halbpennige*

Notes Measurement and Coinage

- ¹ Alberti 1957, 366-388.
² Alberti 1957, 385.
³ Bußemer 1994.
⁴ Cf. Pfeiffer 1975.
⁵ Agricola, G., *De precio metallorum et monetis* (Alberti 1957, 237); cf. Kunze 1958, 20.
⁶ Kunze 1958, 75.
⁷ Alberti 1957, 236; Bußemer 1994.
⁸ Baumgartner, Meder (*Schulte* 1923, 251). The standardisation by Kepler is documented in the so-called *Kepler Kessel* (Weig, G., Stadtarchiv Ulm, personal communication).
⁹ Schulte 1923, 251.

Abbreviations

app.	: appendix
c.	: <i>circa</i>
Cat.-No.	: Catalogue number
cf.	: compare
d	: Pfennige/Denare
ed.	: Editor
EDX	: Energy-dispersive X-ray analysis
fig.	: figure
fl	: <i>florin/gulden</i>
fol.	: folio
FR	: Friedländer, Rosenberg (1978) Number:
FTIR	: Fourier transform infrared spectroscopy
FTIR imaging	: Fourier transform infrared spectroscopy imaging microscopy
FTIR mic.	: Fourier transform infrared spectroscopy microscopy
GC-MS	: Gas chromatography-mass spectrometry
gr	: <i>guldengroschen; groschen</i>
h	: <i>heller</i>
HPLC	: High-performance liquid chromatography
Inv.-No.	: Inventory number
IR	: Infrared photography
IRC	: False-colour infrared photography
IRR	: Infrared reflectography
lb	: <i>librum/pfund</i>
Loc.	: location of source
MLHAS	: Mecklenburgisches Landeshauptarchiv Schwerin
MT	: Microchemical tests
No.	: Number
OES	: Optical emission spectroscopy
PIXE	: Proton-induced X-ray emission
q.v.	: quod vide
r	: recto
RBS	: Rutherford backscattering spectrometry
SEM	: Scanning electron microscopy
ß	: <i>schock groschen</i>
SHStAD	: Sächsisches Hauptstaatsarchiv Dresden
SMBPK	: Staatliche Museen zu Berlin, Preußischer Kulturbesitz
StACo	: Staatsarchiv Coburg
StAWB	: Stadtarchiv Wittenberg
ThHStAW	: Thüringisches Hauptstaatsarchiv Weimar
v	: verso
vtl.	: <i>viertel</i> (quarter)
WAF	: Wittelsbacher Ausgleichsfonds
XRD	: X-ray diffraction analysis
XRF	: X-ray fluorescence spectroscopy

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Appendix I Investigated paintings¹

Title	FR	Date	Location	Microscopic examination of wood species	Examination of panel construction	X-ray radiography	IR / IRR	Microscopic examination of painted surfaces	Other analysis
<i>Crucifixion</i>	001	c.1500	Vienna, Kunsthistorisches Museum, Gemäldegalerie	x	x	x	x	x	
<i>St Valentine and a Kneeling Donor</i>	002	c.1502 / 1503	Vienna, Gemäldegalerie der Akademie der bildenden Künste		x	x	x	x	
<i>St Francis Receiving the Stigmata</i>	003	c.1502 / 1503	Vienna, Gemäldegalerie der Akademie der bildenden Künste		x		x	x	
<i>Penance of St Jerome</i>	004	1502	Vienna, Kunsthistorisches Museum, Gemäldegalerie	x	x	x	x	x	cross-section, EDX
<i>Crucifixion</i>	005	1503	Munich, Bayerische Staatsgemäldesammlungen, Alte Pinakothek	x	x	x	x	x	
<i>Portraits of Johannes Cuspinian and His Wife Anna</i>	006 007	1502 / 1503	Winterthur, Sammlung Oskar Reinhart 'Am Römerholz'	x	x	x	x	x	cross-section, EDX
<i>Portraits of a Viennese Scholar and His Wife</i>	008 009	1503	Nuremberg, Germanisches Nationalmuseum; Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie	x	x	x	x	x	cross-section, EDX
<i>Holy Family (Rest on the Flight into Egypt)</i>	010	1504	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie	x	x	x	x	x	
<i>Martyrdom of St Catherine</i>	011	c.1508	Budapest, Ráday Collection		x	x	x	x	cross-section, EDX, FTIR imaging
<i>Altarpiece with the Martyrdom of St Catherine</i>	012 013 014 015	1506	Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister; London, The National Gallery	x	x	x	x	x	cross-section, EDX

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<i>Fourteen Helpers in Need (verso: Christ as the Man of Sorrows)</i>	016	c.1505 / 1507	Torgau, Marienkirche	x	x	x	x	x	cross-section, EDX, PIXE- RBS HPLC
<i>Resurrection</i>	017	c.1509	Kassel, Staatliche Museen, Gemäldegalerie Alte Meister		x		x	x	
<i>Altarpiece of the Holy Kinship</i>	018	1509	Frankfurt, Städelsches Kunstinstitut	x	x	x	x	x	cross-section, EDX
<i>Portraits of Johann the Steadfast and Johann Friedrich I the Magnanimous</i>	019	1509	London, The National Gallery		x	x	x	x	cross-section, EDX, FTIR mic. GC-MS
<i>Altarpiece of the Holy Kinship (Princes' Altarpiece)</i>	020	c.1510	Dessau, Anhaltische Gemäldegalerie	x	x	x	x	x	cross-section, EDX, HPLC
<i>Venus and Cupid</i>	022	1509	St Petersburg, Hermitage			x			
<i>Portrait of Christoph Scheurl</i>	023	1509	Nuremberg, private collection		x	x	x	x	
<i>Portrait of Georg Spalatin</i>	024	1509	Leipzig, Museum der bildenden Künste					x	
<i>Christ Driving the Money-changers from the Temple</i>	025	c.1509 / 1510	Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister		x	x	x		
<i>Portrait of a Woman</i>	027	c.1508	Basel, Öffentliche Kunstsammlung, Kunstmuseum		x			x	
<i>Saints (Elizabeth, Anne, Christopher and George) and Donors</i>	028	c.1512 / 1514	Barcelona, Fundació Colecció Thyssen-Bornemisza		x	x			
<i>Virgin and Child under the Trees</i>	029	c.1510	Formerly located at Wrocław Cathedral; present location unknown			x			
<i>Virgin and Child</i>	030	c.1512 / 1514	Madrid, Fundació Colecció Thyssen-Bornemisza		x		x	x	
<i>St Catherine and St Barbara</i>	031	c.1511 / 1512	Kassel, Staatliche Museen, Gemäldegalerie Alte Meister	x	x		x	x	
<i>Salome</i>	033	c.1509 / 1510	Lisbon, Museu Nacional de Arte Antiga			x			
<i>Holy Kinship</i>	034	c.1509 / 1510	Vienna, Gemäldegalerie der Akademie der bildenden Künste		x	x	x	x	
<i>Holy Family and Education of the Virgin</i>	035	c.1512 / 1515	Wörlitz, Staatliche Schlösser und Gärten		x	x	x	x	
<i>Virgin and Child with Two Saints</i>	038A	c.1512 / 1514	Weimar, Kunstsammlungen	x	x	x	x	x	
<i>Virgin and Child with St Anne</i>	039	c.1512 / 1514	Kreuzlingen, Heinz Kisters collection		x				

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<i>Judgement of Paris</i>	041	c.1512 / 1514	Fort Worth, The Kimbell Art Museum		x	x	x	x	cross-section, EDX
<i>Adam and Eve</i>	044	c.1512	Warsaw, National Museum		x	x			
<i>Neustadt Altarpiece</i>	47A	1511– 1513	Neustadt/Orla, Evangelische Stadtkirche St. Johannis	x	x		x	x	cross-section, EDX, FTIR
<i>Adoration of the Magi</i>	048	c.1513 / 1516	Gotha, Schlossmuseum	x	x	x			
<i>Adoration of the Magi</i>	049	c.1520 / 1525	Naumburg, Evangelische Stadtkirche St. Wenzel		x	x	x	x	
<i>Christ and the Virgin</i>	054B	c.1516 / 1520	Gotha, Schlossmuseum	x	x	x	x	x	PIXE-RBS
<i>Portrait of a Man with a Fur Hat</i>	059	c.1510	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie	x	x	x	x	x	cross-section, EDX
<i>Portrait of Duke Heinrich the Devout of Saxony and Portrait of the Duchess Katharina of Mecklenburg</i>	060 061	1514	Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister		x		IRC	x	
<i>Portrait of a Man, Perhaps a Mayor of Weißenfels</i>	063	1515	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie	x	x		x	x	cross-section, EDX
<i>Portrait of the Elector Friedrich III the Wise</i>	064A	later copy?	Nuremberg, Germanisches Nationalmuseum	x	x	x	x	x	x
<i>Wings of an Altarpiece with Portraits of the Elector Friedrich III the Wise and Johann the Steadfast</i>	064B	c.1514 / 1515	Coburg, Kunstsammlungen der Veste		x			x	
<i>Zwickau Altarpiece</i>	064C	c.1518	Zwickau, St. Katharinenkirche		x		x		
<i>Holy Trinity</i>	065	c.1515	Leipzig, Museum der bildenden Künste	x	x		x	x	cross-section, EDX
<i>St Jerome and St Leopold of Austria</i>	068	1515	Vienna, Kunsthistorisches Museum, Gemäldegalerie		x			x	cross-section, EDX
<i>Beheading of St Catherine</i>	074A	after 1515	Nuremberg, Germanisches Nationalmuseum	x	x		x		
<i>Taking of Christ</i>	075	1515	West Palm Beach, Florida, Norton Museum of Art			x			
<i>The Ten Commandments</i>	077	1516	Wittenberg, Lutherhalle	x	x	x	x	x	
<i>Saviour</i>	078	c.1515 / 1516	Naumburg, Domschatzgewölbe; formerly located at Zeitz, St. Michaeliskirche	x	x			x	cross-section, EDX
<i>Virgin and Child with St Anne</i>	079	c.1515 / 1516	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie		x	x		x	
<i>Virgin and Child</i>	080	c.1516 / 1518	Darmstadt, Hessisches Landesmuseum	x	x	x	x	x	

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<i>St Catherine and St Barbara</i>	084	c.1516	Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister		x	x			
<i>Virgin and Child with Saints</i>	085	1516	Dessau, Anhaltische Gemäldegalerie	x	x	x	x	x	cross-section, EDX
<i>Virgin and Child</i>	089	1518	Cologne, Wallraf-Richartz-Museum		x	x	x	x	cross-section, EDX
<i>Virgin at Prayer, Dressed in Ears of Grain</i>	089A	1518	Weimar, Kunstsammlungen	x	x	x		x	
<i>Agony in the Garden</i>	091	c.1515	Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister		x	x			
<i>Crucifixion</i>	094	c.1515 / 1520	Colmar, Musée d'Unterlinden		x	x	x		
<i>Crucifixion</i>	095	c.1520	Havana, Museo Nacional de Cuba		x				cross-section, EDX, FTIR
<i>At Death's Door</i>	097	c.1518	Leipzig, Museum der bildenden Künste		x			x	
<i>The Last Judgement</i>	099	c.1520 / 1525	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie		x	x	x	x	
<i>The Last Judgement</i>	100	c.1520 / 1525	Kansas City, The Nelson-Atkins Museum of Art				x		
<i>Nativity</i>	101	c.1515 / 1520	Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister			x			
<i>Virgin and Child with St Anne</i>	105	c.1520	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie		x	x	x	x	
<i>Lamentation Entombment</i>	106	c.1538 E, F	Nuremberg, Germanisches Nationalmuseum	x	x		x	x	
<i>St Jerome</i>	107	c.1515	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie	x	x	x		x	
<i>St Eustachius</i>	108	c.1515 / 1520	Vaduz, The Collection of the Prince of Liechtenstein		x		IRC	x	
<i>St Christopher</i>	111	c.1518 / 1520	Private collection			x			
<i>Adam and Eve (on the versos Christ and a Virgin)</i>	112A	c.1515 / 1520	Vienna, Kunsthistorisches Museum, Gemäldegalerie		x	x		x	cross-section
<i>Adam and Eve</i>	113	c.1513 / 1515	Würzburg, Mainfränkisches Museum		x			x	
<i>Venus</i>	115	c.1518	Ottawa, National Gallery of Canada	x	x	x	x		cross-section, EDX

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<i>Reclining Water Nymph</i>	119	1518	Leipzig, Museum der bildenden Künste		x	x				
<i>Reclining Water Nymph</i>	119A	c.1515	Berlin, Jagdschloss Grunewald		x	x				
<i>Portraits of a Prince and a Princess of Saxony</i>	123 124	c.1517	Washington, National Gallery of Art	x	x	x				
<i>Christ and the Woman Caught in Adultery</i>	129	c.1520	Kronach, Fränkische Galerie		x		x	x		
<i>Christ Taking Leave of his Mother</i>	132	c.1516 / 1520	Vienna, Kunsthistorisches Museum, Gemäldegalerie		x			x		cross-section
<i>Christ Taking Leave of His Mother</i>	132B	c.1516 / 1520	Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister			x				
<i>Sts Willibald and Walpurgis Adored by Gabriel von Eyb, Bishop of Eichstätt</i>	133	1520	Bamberg, Historisches Museum		x			x		
<i>St Sebastian and St Roch</i>	133A	c.1520	Eichstätt, Bischoflicher Stuhl		x			x		
<i>Virgin and Child with Saints</i>	134	c.1522	Erfurt, Cathedral			x	x			
<i>Altarpiece of the Virgin Glorified (Prague Altarpiece)</i>	135 136 137	c.1520	Prague, Collections of the Prague Castle Munich, Bayerische Staatsgemäldesammlungen Karlsruhe, Staatliche Kunsthalle		x			x		
<i>Samson Vanquishing the Lion</i>	140	c.1520 / 1525	Weimar, Kunstsammlungen	x	x	x	x	x		
<i>Portrait of Count Palatine Philipp of the Rhine</i>	141	c.1520 / 1522	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie	x	x	x	x	x		cross-section, EDX
<i>Portrait of Margrave Johann of Brandenburg-Ansbach</i>	142	c.1520	Eisenach, Wartburg-Stiftung			x				
<i>Portrait of a Bearded Young Man</i>	144	1521	Schwerin, Staatliches Museum			x				
<i>Portaits of a Man and a Woman</i>	145 146	1522	Washington, National Gallery of Art	x	x	x	x	x		
<i>Portrait of Luther as Junker Jörg</i>	149	1521 / 1522	Weimar, Kunstsammlungen	x	x	x	x	x		
<i>Portrait of Christian II of Denmark</i>	150	1523	Nuremberg, Germanisches Nationalmuseum	x	x	x	x	x		cross-section, EDX, FTIR, XRD
<i>Portrait of Christian II of Denmark</i>	150A	c.1523 / 1530	Leipzig, Museum der bildenden Künste			x				
<i>Portrait of Margrave Kasimir of Brandenburg-Kulmbach</i>	152	15[2]2	Vienna, Kunsthistorisches Museum, Gemäldegalerie	x		x				
<i>Portrait of Margrave Kasimir of Brandenburg-Kulmbach</i>	152A	c.1522	Nuremberg, Germanisches Nationalmuseum	x	x	x	x	x		

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<i>Portrait of a Young Girl</i>	153	c.1523 / 1525	Paris, Louvre	x		x			
<i>Portrait of a Young Girl</i>	153A	c.1523 / 1525	Wittenberg, Lutherhalle	x					
<i>Virgin and Child</i>	159	c.1525 / 1530	Darmstadt, Hessisches Landesmuseum		x		x		
<i>Virgin and Child</i>	160	c.1525	Bremen, Stiftung Ludwig-Roselius- Museum	x	x		x	x	cross-section, EDX
<i>Virgin of the Grapes</i>	163	c.1525	Munich, Bayerische Staatsgemäldesammlungen, Alte Pinakothek				x	x	
<i>St Mary Magdalene</i>	168	1525	Cologne, Wallraf-Richartz-Museum	x	x	x	x	x	IRC
<i>Young Woman and Child</i>	170	c.1525	Eisenach, Wartburg-Stiftung			x	x		
<i>Portrait of a Young Lady</i>	172	c.1520 / 1530	London, The National Gallery		x	x		x	cross-section
<i>Portraits of a Couple von Schleinitz?</i>	176 177	1526	Weimar, Kunstsammlungen	x	x	x	x	x	
<i>Portrait of Elector Friedrich III the Wise</i>	179C	1525	Darmstadt, Hessisches Landesmuseum	x	x			x	
<i>Portrait of a Man</i>	181	1524	London, The National Gallery						GC-MS FTIR mic.
<i>Portrait of Cardinal Albrecht of Brandenburg</i>	182C	c.1520 / 1525	Mainz, Landesmuseum		x		x	x	cross-section
<i>Cardinal Albrecht of Brandenburg as St Jerome</i>	184	1527	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie	x	x	x	x	x	cross-section
<i>Cardinal Albrecht of Brandenburg as St Jerome</i>	185	1525	Darmstadt, Hessisches Landesmuseum		x		x	x	
<i>Portraits of Martin Luther and Katharina von Bora</i>	189D 190D	1526	Eisenach, Wartburg-Stiftung		x		x	x	
<i>Adam and Eve</i>	191	1526	London, The Courtauld Institute Galleries		x	x	x	x	cross-section, EDX
<i>Adam and Eve</i>	193	1533	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie		x	x			
<i>Adam and Eve</i>	198C	1531	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie	x	x	x			
<i>Adam and Eve</i>	198D	1531	Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister			x			

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<i>Adam and Eve</i>	198E	1532	Magdeburg, Kulturhistorisches Museum			x			
<i>Adam and Eve</i>	199	c.1525 / 1530	Münster, Westfälisches Landesmuseum		x				
<i>Mythological Scene</i>	200	c.1530	Münster, Westfälisches Landesmuseum		x				
<i>David in the Desert of Siphmot</i>	203A	c.1530	Nuremberg, Germanisches Nationalmuseum	x	x	x	x	x	
<i>Lot and His Daughters</i>	206	1528	Vienna, Kunsthistorisches Museum, Gemäldegalerie		x			x	
<i>David and Bathseba</i>	210	1526	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie	x		x			
<i>Self-portrait of Lucas Cranach the Elder</i>	214A	1531	Stolzenfels Castle	x	x	x	x	x	cross-section
<i>Death of Holofernes</i>	215	1531	Gotha, Schlossmuseum			x			
<i>Christ Blessing the Children</i>	217	c.1537	Naumburg, St. Wenzel			x			
<i>Altarpiece of Georg the Bearded</i>	219	1534	Meissen, Cathedral		x	x			cross-section, OES, MT
<i>Portrait of Georg the Bearded</i>	219B	1534	Leipzig, Museum der bildenden Künste			x			
<i>Fall and Salvation of Man</i>	221A	c.1535 / 1540	Weimar, Kunstsammlungen	x	x	x		x	
<i>Virgin and Child under an Apple Tree</i>	225	c.1530	St Petersburg, Hermitage			x			
<i>Virgin and Child with St John</i>	226	c.1535	Karlsruhe, Staatliche Kunsthalle		x		x		
<i>Virgin and Child</i>	229	c.1530 / 1535	Leipzig, Museum der bildenden Künste			x			
<i>Judith</i>	230A	c.1530	Vienna, Kunsthistorisches Museum, Gemäldegalerie	x	x				
<i>Lucretia</i>	239	1533	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie	x		x			
<i>Venus and Cupid</i>	241	c.1530	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie		x	x			
<i>Venus and Cupid</i>	246A	1527	Schwerin, Staatliches Museum			x			
<i>The Golden Age</i>	261	c.1530	Munich, Bayerische Staatsgemäldesammlungen, Alte Pinakothek		x			x	
<i>The Close of the Silver Age (?)</i>	264	1527	Weimar, Kunstsammlungen	x	x		x	x	

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<i>Hercules and Antaeus</i>	269	c.1530	Vienna, Gemäldegalerie der Akademie der bildenden Künste	x			x		
<i>Apollo and Diana</i>	271	1530	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie	x		x			
<i>Apollo and Diana</i>	271A	c.1530	London, The Royal Collection Trust		x		x		
<i>Hercules with Omphale</i>	272	1532	Frankfurt, private collection		x				
<i>The Jaws of Truth</i>	278	1534	Nuremberg, Germanisches Nationalmuseum	x	x		x	x	
<i>Stag Hunt of the Elector Friedrich III the Wise</i>	281	1529	Vienna, Kunsthistorisches Museum, Gemäldegalerie	x	x				
<i>Ill-matched Lovers</i>	285	c.1530	Nuremberg, Germanisches Nationalmuseum	x	x	x	x	x	
<i>Ill-matched Lovers</i>	285D	c.1530	Vienna, Kunsthistorisches Museum, Gemäldegalerie		x			x	
<i>Ill-matched Lovers</i>	287	c.1530	Düsseldorf, museum kunst palast	x	x	x	x	x	
<i>Portrait of a Young Woman</i>	297	1528	Private collection			x			
<i>Portrait of a Young Woman</i>	303	c.1530	Nuremberg, Germanisches Nationalmuseum	x	x		x	x	
<i>Portraits of Johann Friedrich I the Magnanimous and Princess Sibylle of Cleves</i>	304 305	1526	Weimar, Kunstsammlungen	x	x	x	x	x	
<i>Portrait of the Elector Johann the Steadfast</i>	311A	c.1526	Weimar, Kunstsammlungen	x	x	x	x	x	
<i>Portrait of the Elector Johann the Steadfast</i>	311B	1526	Otterlo, Stichting Kröller-Müller Museum	x	x	x		x	
<i>Portraits of Martin Luther and Katharina von Bora</i>	312A 313A	1528	Weimar, Kunstsammlungen	x	x	x	x	x	
<i>Portraits of Martin Luther and Katharina von Bora</i>	312B 313B	1529	Darmstadt, Hessisches Landesmuseum	x	x		x	x	
<i>Portrait of Martin Luther</i>	314D	1533	Nuremberg, Germanisches Nationalmuseum	x	x		x	x	
<i>Portraits of Hans Luther and His Wife Margaretha</i>	316 317	1527	Eisenach, Wartburg-Stiftung	x	x	x	x	x	
<i>Portrait of Duke Heinrich the Devout of Saxony</i>	318	c.1528	Kassel, Staatliche Museen, Gemäldegalerie Alte Meister			x			
<i>Portrait of Philipp von Freising</i>	320	1528	Dessau, Anhaltische Gemäldegalerie		x	x			
<i>Portrait of Margarete of Austria</i>	321	c.1525	Dessau, Anhaltische Gemäldegalerie		x	x			
<i>Portrait of Herr von Kökeritz</i>	324	c.1526 / 1530	Paris, Louvre	x		x			
<i>Portrait of a Prince of Saxony (?)</i>	329	1529	Cologne, Wallraf-Richartz-Museum		x	x	x	x	

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<i>Portrait of Johann Friedrich I the Magnanimous as Heir Apparent</i>	334	1531	Paris, Louvre			x			
<i>Portrait of the Elector Johann Friedrich I the Magnanimous</i>	335	c.1532 / 1535	Berlin, Jagdschloss Grunewald			x			
<i>Three Electors of Saxony: Friedrich III the Wise, Johann the Steadfast and Johann Friedrich I the Magnanimous</i>	338A	c.1535	Nuremberg, Germanisches Nationalmuseum	x	x	x	x	x	
<i>Portraits of Friedrich III the Wise and Johann the Steadfast</i>	338B	1532	Weimar, Kunstsammlungen, Inv.-No. G7, G8	x	x				
<i>Portrait of Friedrich III the Wise</i>	338B	1532	Paris, Louvre, Inv.-No. 1181			x			
<i>Portraits of Friedrich III the Wise and Johann the Steadfast</i>	338B	1533	New York, The Metropolitan Museum of Art, Inv.-No. 46.179.1, 46.179.2		x				
<i>Portrait of Gregor Brück</i>	341	1533	Nuremberg, Germanisches Nationalmuseum	x	x		x	x	
<i>Portrait of a Bearded Young Man (by Hans Cranach)</i>	342	1534	Madrid, Fundación Colección Thyssen-Bornemisza		x				
<i>Portrait of the Emperor Charles V</i>	345	1533	Madrid, Fundación Colección Thyssen-Bornemisza		x		x		
<i>Portrait of Johannes Bugenhagen</i>	351	1537	Wittenberg, Lutherhalle			x			
<i>Portrait of Sigmunt Kingsfelt, Knight</i>	353	c.1530	London, private collection		x			x	
<i>Portrait of a Young Man</i>	354	1532	Dessau, Anhaltische Gemäldegalerie			x			
<i>David and Goliath</i>	357G	after 1537	Berlin, Verwaltung der Staatlichen Schlösser und Gärten		x				
<i>David and Bathseba</i>	357F	after 1537	Berlin, Verwaltung der Staatlichen Schlösser und Gärten		x				
<i>Judith</i>	359B	after 1537	Schwerin, Staatliches Museum			x			
<i>Christ and the Woman Caught in Adultery</i>	365	c.1535 / 1540	Ottawa, National Gallery of Canada	x	x	x			
<i>Christ and the Woman of Samaria (canvas painting)</i>	366C	c.1552	Kronach, Festung Rosenberg, Fränkische Galerie	x	x			x	cross-section, EDX
<i>Christ Mocked</i>	371A	c.1515 / 1520	Weimar, Kunstsammlungen	x	x	x	x	x	
<i>Crucifixion with the Converted Centurion</i>	378C	1536	Washington, National Gallery of Art	x	x	x			XRF
<i>Schneeberg Altarpiece</i>	379	1539	Schneeberg, St. Wolfgangskirche		x				
<i>Christ as the Man of Sorrows</i>	381E	c.1515	Weimar, Kunstsammlungen	x	x	x	x	x	
<i>Virgin and Child</i>	390	c.1535 / 1540	Washington, National Gallery of Art	x	x	x	x		

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<i>Virgin and Child with the Boy St John</i>	392B	c.1526 / 1530	Eisenach, Wartburg-Stiftung			x			
<i>Venus with Cupid, Stealing Honey</i>	395	after 1537	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie			x			
<i>Venus with Cupid, Stealing Honey</i>	398A	c.1537	Nuremberg, Germanisches Nationalmuseum	x	x		x	x	
<i>Venus with Cupid, Stealing Honey</i>	398B	after 1537	Nuremberg, Germanisches Nationalmuseum	x	x		x	x	
<i>Reclining Water Nymph</i>	403	after 1537	Washington, National Gallery of Art	x	x	x	x		
<i>Reclining Water Nymph</i>	403A	after 1537	Kassel, Staatliche Museen, Gemäldegalerie Alte Meister	x		x			
<i>Charity</i>	406	after 1537	Weimar, Kunstsammlungen	x	x	x	x	x	
<i>The Fountain of Youth</i>	407	1546	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie			x			
<i>Judgement of Paris</i>	409	c.1540 / 1546	Gotha, Schlossmuseum			x			
<i>Judgement of Paris</i>	409B	after 1537	Berlin, Verwaltung der Staatlichen Schlösser und Gärten		x				
<i>A Stag Hunt</i>	412B	1540	Cleveland, The Cleveland Museum of Art		x			x	
<i>Portrait of Duke Georg the Bearded of Saxony</i>	413B	c.1534 / 1539	Eisenach, Wartburg-Stiftung		x		x	x	
<i>Portrait of the Duchess Barbara of Saxony</i>	414A	c.1520 / 1540	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie			x			
<i>Portrait of Martin Luther</i>	423A	1546	Weimar, Kunstsammlungen	x		x			
<i>Conversion of St Paul</i>	433	1549	Nuremberg, Germanisches Nationalmuseum	x	x	x	x	x	
<i>Merseburg Altarpiece</i>	Sup 001A	c.1515 / 1520	Merseburg, Cathedral			x	x		
<i>Altarpiece with the Coronation of the Virgin and Saints</i>	Sup 001C	c.1520	London, The Royal Collection Trust		x		x	x	cross-section, EDX
<i>Martyrdom of St Erasmus</i>	Sup 005	1516	Aschaffenburg, Staatsgalerie		x				
<i>Altarpiece of the Virgin</i>	Sup 006A	1529	Halle/Saale, St. Marienkirche		x	x	x	x	cross-section, EDX
<i>Virgin Standing on a Crescent Moon</i>	Sup 006H	c.1515 / 1520	Frankfurt, Städelches Kunstinstitut		x		x	x	IRC

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<i>Jüterborg Altarpiece</i>	Sup 018B	c.1515 / 1520	Jüterborg, St. Nikolaikirche				x		
<i>Portrait of a Young Lady</i>	--	c.1500 / 1506	Nuremberg, Germanisches Nationalmuseum, Inv.-No. Gm 614	x	x	x	x	x	cross-section, EDX, FTIR imaging
<i>Adam</i>	--	c.1508 / 1510	Besançon, Musée des Beaux-Arts et d'Archéologie, Inv.-No. 896.1.54		x	x	x		
<i>Eve</i>	--	c.1508 / 1510	Besançon, Musée des Beaux-Arts et d'Archéologie, Inv.-No. 896.1.54		x	x	x		
<i>St Stephen, King of Hungary</i>	--	c.1511	Nuremberg, Germanisches Nationalmuseum, Inv.-No. Gm 1666	x	x	x	x	x	cross-section, EDX
<i>Adam and Eve</i>	--	c.1512 / 1520	Vienna, Kunsthistorisches Museum, Gemäldegalerie, Inv.-No. 929		x		x	x	
<i>St Jerome</i>	--	c.1515	Bremen, Stiftung Ludwig-Roselius- Museum Inv.-No. LR 57	x	x		x	x	
<i>St Jerome</i>	--	c.1515	Hamburg, private collection	x	x		x	x	
<i>Posterstein Crucifixion</i>	--	c.1515 / 1516	Gera, Kunstsammlung		x	x	x	x	cross-section, OES, MT
<i>Altarpiece of the Virgin</i>	--	c.1515 / 1520	Kade, Pfarrkirche		x			x	EDX, FTIR
<i>St Francis Receiving the Stigmata</i>	--	after 1515	Nuremberg, Germanisches Nationalmuseum, Gm 1352	x	x	x	x	x	
<i>Altarpiece of the Virgin</i>	--	c.1515 / 1520	Aschersleben, St. Stephani-Kirche		x	x	x	x	cross-section, OES, MT
<i>Altarpiece with the Virgin and Child with St Anne</i>	--	c.1515 / 1520	Aschersleben, St. Stephani-Kirche		x				
<i>Crucifixion</i>	--	c.1515 / 1520	Bremen, Stiftung Ludwig-Roselius- Museum, Inv.-No. LR 2356	x			x		
<i>Virgin and Child</i>	--	c.1516 / 1518	Oslo, Nasjonalgalleriet, Inv.-No. NG.M.173			x			
<i>Altarpiece of the Virgin</i>	--	1518	Brandenburg, Cathedral St. Peter und Paul		x			x	EDX, FTIR, XRD
<i>Lucretia</i> (by Hans Döring)	--	1514	Wiesbaden, Museum		x		x	x	
<i>Mansfeld Altarpiece</i> (by Hans Döring?)	--	1518 or later	Mansfeld, Castle		x	x			
<i>Portrait of Graf Philipp von Solms</i> (by Hans Döring)	--	1520	Paderborn, private collection	x	x	x	x	x	cross-section, EDX
<i>Crucifixion</i>	--	c.1520 / 1530	Mahlis, Evangelische Kirche		x			x	cross-section
<i>Crucifixion</i>	--	c.1523	Dessau, St. Johanniskirche	x	x		x		cross-section, OES, MT

APPENDIX I

<i>Portrait of Martin Luther as an Augustine Monk</i>	--	c.1523 / 1524	Nuremberg, Germanisches Nationalmuseum, Gm 1570		x			x	
<i>St Anthony (verso: Christ as the Man of Sorrows)</i>	--	c.1520 / 1525	Litoměřice, Biskupství Litoměřice		x		x	x	IRC
<i>Salome</i>	--	c.1525	Halle/Saale, Moritzburg			x	x		
<i>St Jerome</i>	--		Mainz, Landesmuseum, Inv.-No. 439		x		x	x	
<i>Ill-matched Lovers</i>	--	c.1525 / 1530	Darmstadt, Hessisches Landesmuseum, Inv.-No. GK 793		x		x		
<i>Fall and Salvation of Man</i>	--	after 1529	Nuremberg, Germanisches Nationalmuseum, Inv.-No. Gm 220/221	x	x		x	x	
<i>Aristotle and Phyllis</i>	--	1530	Private collection	x	x	x	x		FTIR mic. XRF
<i>Portrait of Elector Friedrich III the Wise</i>	--	1532	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie, Cat. No. 636			x			
<i>Crucifixion</i>	--	'1532' (later copy)	Sold in Vienna, Dorotheum, October 1996, lot 175		x	x	x		XRF
<i>Melancholy</i>	--	1532	Colmar, Musée d'Unterlinden, Inv.-No. 83.5.1		x	x	x		
<i>Portrait of Elector Johann the Steadfast</i>	--	c.1532	Gottorf, Landesmuseum für Kunst und Kulturgeschichte		x		x		
<i>Reclining Water Nymph</i>	--	1533	Darmstadt, Hessisches Landesmuseum, Inv.-No. GK 75		x	x	x		
<i>Portrait of Georg the Bearded</i>	--	1534	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie, Cat. No. 635			x			
<i>Ill-matched Lovers</i>	--	c.1535	Berlin, Staatliche Museen zu Berlin, Preußischer Kulturbesitz, Gemäldegalerie, Cat. No. 1606			x			
<i>Salome</i>	--	1537	Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister, Inv.-No. 1923			x			
<i>Salomo's Idolatry</i>	--	c.1537	Dresden, Staatliche Kunstsammlungen, Gemäldegalerie Alte Meister, Inv.-No. 1928			x			
<i>Justitia</i>	--	after 1537	Bremen, Stiftung Ludwig-Roselius-Museum, Inv.-No. LR 58	x	x			x	
<i>Christ Blessing the Children</i>	--	after 1537	Larvik, Church	x	x	x	x		cross-section MT

<i>Virgin and Child</i>	--	after 1537	Havana, Museo Nacional de Cuba, Inv.-No. 90-3346	x						cross-section, EDX, FTIR
<i>Judgement of Kambyses</i>	--	after 1537	Berlin, Verwaltung der Staatlichen Schlösser und Gärten, GK I 1188		x					
<i>Portrait of Martin Luther</i>	--	c.1540	Eisenach, Wartburg-Stiftung, Inv.-No. M71		x		x	x		
<i>Duke Ernst IV of Brunswick-Grubenhagen</i>	--	c.1542 / 1546	Wittenberg, Lutherhalle, Inv.-No. G38			x				
<i>Duke Ernst IV of Brunswick-Grubenhagen</i>	--	c.1542 / 1546	Wittenberg, Lutherhalle, Inv.-No. G90			x				
<i>Duke Ernst of Brunswick-Lüneburg,</i>	--	c.1544	Wittenberg, Lutherhalle, Inv.-No. G89			x				
<i>Agony in the Garden</i>	--	1546	Gottorf, Landesmuseum für Kunst und Kulturgeschichte	x	x					
<i>Portrait of Hieronymus Tedenhamer</i>	--	later copy	Vienna, Kunsthistorisches Museum, Gemäldegalerie, Inv.-No. 9107	x	x	x			x	
Post-1553 Paintings by Lucas Cranach the Younger and workshop										
<i>Altarpiece: Crucifixion, with Allegory of Redemption</i>	434	1555	Weimar, Stadtkirche			x				
<i>Portrait of Gregor Brück (canvas painting)</i>	--	1557	Weimar, Kunstsammlungen	x	x	x			x	
<i>Portraits of a Young Nobleman and a Young Lady</i>	429 430	1564	Vienna, Kunsthistorisches Museum, Gemäldegalerie			x				
<i>Caspar Niemek Epitaph</i>	--	1564	Wittenberg, Stadtkirche			x	x			
<i>Kemberg Altarpiece</i>	--	1565	Kemberg, Stadtkirche		x					cross-section OES
<i>Portrait of the Elector Johann Friedrich I the Magnanimous (canvas painting)</i>	--	1578	Weissenfels, Castle	x	x	x			x	cross-section, EDX, FTIR imaging
<i>Colditz Altarpiece</i>	--	1584	Nuremberg, Germanisches Nationalmuseum, Inv.-No. Gm 1116	x	x		x	x		

Notes

Appendix I: Investigated paintings

¹ Paintings are listed according to numbers in Friedländer, Rosenberg (1978) except those without an FR-No., these are given in chronological order at the end of the list. X-radiographs, infrared photographs and infrared reflectograms have been produced in collaboration with various institutions (cf. Acknowledgements). The large collections of material

established by Konrad Riemann and Ingo Sandner have been studied. Peter Klein identified most of the wood species.

Examination of panel construction, microscopic examination of painting surfaces and analysis of cross-sections was done by the author with only a few exceptions. Further instrumental analysis of the painting materials has been carried out in collaboration with different laboratories. I am very grateful to all who have co-operated.

Appendix II**Selected primary documents on materials, techniques and workshop organisation¹****Editorial remarks:**

Documents transcribed here, newly or for the first time, can be found in the Thüringisches Hauptstaatsarchiv in Weimar (ThHStAW), the Sächsisches Hauptstaatsarchiv (SHStAD), in the Staatsarchiv in Coburg (StACo) and in the Stadtarchiv Wittenberg (StAWB). Other documents from these and other archives are reproduced in accordance with earlier transcriptions, and are marked accordingly.

The wording of the text is based on recommendations for the edition of New High German texts². Elucidations of abbreviations, comments and factual explanations follow in square brackets. Proper names are reproduced as they appear in the original.

The letters i,j,u,v and w are reproduced in accordance with their phonetic value.

Lower case applies with the exception of the beginning of sentences and proper nouns (names of people, places, rivers, as well as countries, also when used in compound form). In several instances, however, it was impossible to decide whether some words are titles of occupations or just surnames.

All figures have been transposed and have been reproduced in arabic rather than in roman numerals, as they appear in the original.

As far as possible, punctuation has been standardised in line with points of grammar usual today, with no reference being made to the new rules on written German.

1505

(1) 1505 January 22

4 fl fur 4 niderlendisch gemalte ducher hat Dolcks m. g. hern zcu Leypczick am nawen jars markt kaufft.

Date: 1505, Neujahrsmarkt (in the account book registered: Mittwoch nach Montag Sebastiani)

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4187, fol. 4v (cf. Bruck 1903, 319)

(2) 1505 April 14

40 fl Lucas Maler vonn Cronach zcu natoff uf bevelh Pfeff[ingers] als in m. g. hernn zcu dinst habenn inngenommen montag nach Jubilate zcu Thorgaw.

Date: Torgau, Montag nach Jubilate

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4188, fol. 15r (cf. Gurlitt 1897, 40; Bruck 1903, 296; Scheidig 1953, 156, no. 1; Schade 1974, 402, no. 12)

(3) 1505 May 13

Vor bathelon: 3 gr 8 d kegin Wittenb[er]g hat Lucas Maler farbe geholt.

Date: Dienstag zu Pfingsten

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 1770, fol. 12r (cf. Schade 1974, 402, no. 14)

(4) 1505 September 29

17 guld. 15 gr für 4 bücher fein golt und ein buch silber Lucas Maler außem Michelsmarckt zugeschickt.

Date: Michelsmarkt

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4183, fol. 184r (transcribed by Gurlitt 1897, 41; Bruck 1903, 296; Schade 1974, 402, no. 20)

(5) 1505 September around 29

12 gulden Cristoff Maler von München uff bevelh Dolzks dafür er im Michelsmarckt zcu Leipzck m. g. hern farbe, leym und anders laut einer zcettel kauft. 17 gulden demselben Cristoff Maler uf bevelh Hansen von Dolzks, das er bey Lucas Maler gearbeit zu Wittenberg.

Date: Leipzig, Michelsmarkt

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4190, fol. 15r [in slightly altered form Reg. Bb 4183, fol. 183v: 12 gulden Christof Maler von München von Lucas Malers wegen...] (transcribed by Gurlitt 1897, 50; Schuchardt 1851, I, 47; Bruck 1903, 300; Schade 1974, 402, no. 19)

(6) 1505 December 11

10 fl 15 gr fur 10 lb 3 vtl [viertel] blawglasurt farb maister Lucas zcalt zcu der Loch uf bevelh m. g. hern durch Hirsch, donerstag nach conceptionis marie virginis.

Date: Torgau, Donnerstag nach Concept. Mar. Virg.

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4188, fol. 36v (cf. Gurlitt 1897, 41; Bruck 1903, 296; Schade 1974, 402, no. 22)

(7) 1505 December 19

25 fl maister Jacob dem welschenn maler uf sein solt und erbaht zcu der Loch am freitag nach Lucie bey seym diener, in beywesen meister Lucas Maler.

Date: Torgau, Freitag nach Lucie

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4188, fol. 36v (cf. Bruck 1903, 287; Schade 1974, 402, no. 23)

1506

(8) 1506 January 17

3 g[r] kein Torga der hat Laucusen Malir etzlichin zceugk kein der Lochaw geholt, den hab ich furt kein Kuburg geschickt. 30 g[r] Bartel, ein mewrer, der hat uf schrift Laucusen Malers etzliche farben, ein brett und die büchstaben zu drugken kein

Koburg getragen am thage sancte Anthoni.

Date: Lochau, St. Anthoni

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 1775, fol. 14r (transcribed by Hambrecht 1995, 361; Schade 1974, 402, no. 25)

(9) 1506 May 1–3

Ausgab lein [...] 1 virtl Lucas Malern.

Date: Coburg, 1506, Walpurgis – Jubilate

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. Nr. 816, fol. 104r, annual accounts from the Coburger Kastners Kunz Bader for the year 1506/07 (cf. Hambrecht 1995, 362, no. 6)

(10) 1506 June 12–13

8 gr hat Crabat fur mis und werg ausgebenn, ist maister Lucas Malern uf bevell Pfeffingers

Dat. Wittenberg, Freitag/Samstag nach Corporis Christi 1506

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4193, fol. 38r

(11) 1506 July 19

19 fl 10 gr 6 d Cuntz Irtzenn, das er dem bildschnitzer zcu Wirtzburck fur den grossen hergot hat gebenn, der genn Witt[enberg] kommen ist und da mit par bezcalt und vorgnugt, 3 fl 11gr 6 d mit sampt dem fuerlonn.

Date: Sonntag nach Margarethe 1506

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4193, fol. 3r (cf. Bruck 1903, 274–275)

(12) 1506 October 6

54 [altered to gr 4d] gr 4 d hat Lucas Maler den tischen maler mus zole uf bevehle Pfeffingers

Date: Sonnabend nach Oswaldi – Sonntag nach Presentationis Marie 1606

Loc.: StACo LA A Nr. 9940, fol. 79r (transcribed by Hambrecht 1995, 362, no. 7)

(13) 1506 October 12

Lucas Maler 6 eln lundisch zum rock, 2½ eln mechlich mit der farb zu hosen, 6 elen parchat; bevelh meins gnädigsten hern hertzog Fridrichs [...] meister Lucas jungen 7 eln zwickisch zum rock, 7 fiertel mechlich zcu hosen, 6 eln parchat und farb, auß bevelh Pfeffingers.

Date: Coburg, Schneiderrechnung 1506/1507

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb Nr. 5923, fol. 10r, tailor's invoice from the Saxon Electorate Court (transcribed by Hambrecht 1995, 362, no. 8; different Koch 1954/1955, 187; Schade 1974, 403, no. 30)

(14) 1506 October 18

5 fl hat pfeff[inger] dem bilschnitzer zcu Thorgaw gebenn auf

dy taffel, dy außwendich am closter gemalt sein und hat gar auch 4 fl [possibly next line] 3 gr einem armen malerknecht durch gotswillen

Date: Sonntag nach Galli 1506

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4193, fol. 11r (cf. Gurlitt 1897, 63; Bruck 1903, 275)

(15) 1506 October 27

31 fl 15 gr 5 d fur 6 verguldt flugel, für schrawben, schlos, bandt, sper, wichssen ducher, strick, dar von zcu malenn und andere alle notorff zcu denn flugelnn, welch gelt Pawls Goltschmidt von Nornberg hat aussgeben und dem Pfeff[inger] berechet zcu Coburck am dinstag vigilia Simonis et Jude.

Date: Coburg, Dienstag Vigilia Simonis et Jude

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4193, fol. 12r (cf. Bruck 1903, 290)

1506/1507

(16) 1506/1507

81 fl dem maler zu Auspurck Hans Purckmar fur eine taffel gen Witt[enberg], daran sant Veyt und sandt Sebastian gemalt und ander marterer.

Date: Sonderausgaben für Herzog Friedrich von Donnerstag Nativitates Christi 1506 bis Freitag Nativitatis Christi 1507 (fol. 22v)

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4193, fol. 21v (cf. Bruck 1903, 296; Schuchardt 1851, I, 45, date given there 1505)

1507

(17) 1507 September 30

1 fl 8 gr uff entphelm m. gt. h. vor etzliche tafeln unnde breth zcu unsern Lucas Maler lauts end zcetteln, post Michaelis.

Date: Post Michaelis 1507

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 2750, fol. 53v (cf. Schade 1974, 403, no. 34)

(18) 1507 October 21

46 gr 4 d 1 h vor taffel, die meister Lucas mahlen sol und vor ein blech zcu sanct Annen altar Michl Tyscher bezcalht (per consequens 11000 virginum)

Date: während der folgenden 11000 Jungfrauen

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 2750, fol. 84r (cf. Schade 1974, 403, no. 37)

1507/1508

(19) 1507/1508

1 gr hat Simon Koralus zur Lochaw verczert, do er m. g. h. Hertzog Hanßen der taffel halben, die man uf den nawen altar zu Unser Liebenn Frawen machen solt, wie die erhaben solt

werden antzzeichnung geben must.

Date: Torgau, Middle of the annual account (Amtsrechnung Torgau from Walpurgis 1507 to Walpurgis 1508, in the middle of the volume it is stated that the half-yearly account ends at this point, inferring from this at Christmas)

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 2408, fol. 84, also Reg. Bb 2407, fol. 51r, 51v (Important in understanding the passage is the fact that on fol. 70v a quarterly payment is made to 'Simon Koralis und corjungun'. Cf. Bruck 1903, 253, 275; Ritschel 1995, 44)

1508

(20) 1508 January 6

[...] demselben Lucas von Cranach diese nachbenannte cleynot und wappen mit namen ein gelen schylt darinnen ein schwartz slangenn habend, in der mytz zwen schwartz fledermeus-flugel auf dem heubt ein rote cron unnd in den mund ein gülden ringleyn, darinnen ein rubinsteinlein unnd auf dem schylde ein helm mit einer schwartzen und gelen helmdecken unnd auf dem ein gelen pausch von dornen gewunden, darauf aber ein schlangen ist, zu gleichermas Im schylde, wie den n das im mitten des briefs aygentlicher gemalht unnd mit farben ausgestrichen ist, gnediglich verlyhen unnd gegeben,[...].

Date: Nürnberg am Dienstag der heiligen Dreyer Königtag. funfzehnhundert unnd im achten Jare.

Loc.: Letter patent granting a coat of arms to Lucas Cranach (Wappenbrief), issued by Elector Friedrich III (transcribed by Schuchardt 1851, I, 51–54)

(21) 1508 February 19

3 fl furlon gein Wittenberg mit ein tafeln, sonntags nach Valentini.

Date: Wittenberg, Sonntag nach Valentini

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4198, fol. 87r; Book of accounts kept by the Landrentmeisters Hansen von Leympach, a bursor, – allis innemens und ausgebens – sontags nach Galli bis sontags nach Valentini (cf. Bruck 1903, 290)

(22) 1508 after July 2

Ausgabe bothlohn – uff schriff m[eines] g[nä]t[igen herrn] 8 gr mith m[eines] gtl.[gnädigen] herrn briefenn gen berlyn zcu dem wellisschenn maler post visitationis marie virginis gloriosissimo

8 gr mit m[eines] gtl.[gnädigen] hern brifen zcu den wellisschen maler ken berlyn po[st] divisio apostolorum

Date: Post Visitationis Marie Virginis Gloriosissimo [after 2 July 1508]; post Divisio Apostolorum [after 15 July 1508]

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 2751, fol. 50v–51r; Book of accounts from the Wittenberg, Zahna and Wörlitz offices (cf. Bruck 1903, 260–261)

(23) 1508 July 6

[...] Ich hab auch itzo nach abschaiden seiner furstlichen gnaden das tefelein seiner g pildnus an dem gang in der predigerkirchen abnemen und dem Krug, meiner freund münzmeister, uberantworten laßen, der in arbeit stet, demselben gemeß etwas zu visiren, uf das zu des malers zukunft den sachen und meins gnedigsten herrn bevelh dester eher und mit weniger mühe möcht nachgegangen werden; desgleichen hat gedachter Krug von meines gnedigsten herrn münz noch bisher kein ganz werk gefertigt, soll aber in kurz, wie er mich bericht, beschehen, alsdann wil ich seinen f.g. das zufertigen. Ob auch des malers zukunft sich ain zeitlang verziehen, wollet mich bei gegenwertigem briefszaiger berichten, ob desterminder nit der Krug für sich selbs, on des malers beisein und zutun, materien soll, wie er sich selbs, on des malers beisein und zutun, materien soll, wie er sich zu tun erpoten und gute hoffnung hat, das solchs nach beraitem werk meinem gnedigsten herrn nit misfellig sein soll [...].

Date: Nürnberg, Donnerstag nach Vdalarici

Loc.: Nürnberger Briefbücher, Bd. 61, fol. 231ff. Anton Tucher writing to Degenhart von Pfeffingen (transcribed by Gumbel 1926, 47–48, no. 7)

(24) 1508 July 8

So hat Hans Krug nach dem gemele und tefelein, so wir zur furdrung der sachen von dem gang in der predigerkirchen abzunemen bevolhen, ainen possen oder visier in einem laimen, eur f. gn. pildnus unsers verstands ganz gleichformig gemacht, und dhweil dann Lucas, e.f.gn. maler, bishere noch nit gein Nurnberg kommen ist, dafür wirs achten, unnot seiner zukunft zu erwarten, sonder Krug stet in teglicher arbaist, die stempfel ganz zu verfertigen, des versehens, es werde euren gn, nit minder gefellig sein, dann ob Lucas hie bei der hand gewest were [...].

Date: Samstags nach Vdalarici 1508

Loc.: Nürnberger Briefbücher, Bd. 61, fol. 238v ff. Anton Tucher writing to Elector Friedrich III the Wise (transcribed by Gumbel 1926, 48–49, no. 8; Scheidig 1953, 157, no. 7)

(25) 1508 after July 8

Außgabe vor die nawe gebewde des Slosses

17 gr 1 d 1 h eym mewrer 1,5 woche vonn etzlichen gerustenn den mahlern zumache, etzliche locher zcu vormawrern, sampt

eyme helferknechte post kiliani unde laurenti [fol. 55v]

6 gr 6 d vor 4 pfundt leym dem malern [fol. 56r]

Date: Post Kiliani und Laurenti

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 2751, fol. 55v–56r; Book of accounts from the Wittenberg, Zahna and Wörlitz offices (cf. Bruck 1903, 260–261)

(26) 1508 after July 8

Außgabe vor die kirche

13 gr vor 20 lynden breth Clawes Byldenschnittzer [fol. 65r]

3 ß 40 gr vonn eym kasten zcu den ornatn in die sacristei

Fabian Tisscher angedyngt [fol. 65v]

42 gr vor 1 geschnitte crucifix unnde 1 gemalte taffell hat Hans von Berge globt, do etzliche pferde uf Stosszygk vors forberg zcu szetzenn Hans Eyflender bezcalth [fol. 91r]

Date: 1508

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 2751, fol. 65r-91r; Book of accounts from the Wittenberg, Zahna and Wörlitz offices (cf. Bruck 1903, 260-261)

(27) 1508 July 13

Ir habt mir nechst geschiben und daneben einen verschloßen sendbrief, an Lucas, meins gnedigsten herren herzog Fridrichs von Sachsen, curfürsten etc. maler, verlautend, übersendet, demselben Lucaßen zu seiner zukunfft gein Nurmberg zu uberantwurten. Und wiewol ich also seiner zukunfft gewart, ist er doch bishere noch nit alhie einkommen, deßhalben ich den brief bisher beihendig behalten [...].

Date: Nürnberg, Donnerstag nach Kiliani

Loc.: Nürnberger Briefbücher, Bd. 61, fol. 245r; Anton Tucher writing to Degenhart von Pfeffingen (transcribed by Gumbel 1926, 49, no. 9)

(28) 1508

[...] und wiewol die notturft ervordern, zu der silberin monz und den großen der 2 ainen gulden gelten, auch einen sondern stempfel zu graben und zu geprauchen, so hat sich doch Krug des aus angezaigten beswerden in kainem weg belesen wollen. Und so dan euer gn. cammerer, Degenhart von Pfeffingen, oder euer gn. maler mit der zeit gen Nurmberg kommen wurden, soll bey mir kain vleiß erwinden, gedachten Krug neben demselben Pfeffinger und maler zu bereden, sich diser arbeit verrer zu underfahen, wiewol ich nit zuversichtig bin, solchs bei ime zu erheben [...].

Date: Nürnberg, no date given

Loc.: Nürnberger Briefbücher, Bd. 62, fol. 143v and ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa. 2299, fol. 11. Anton Tucher the Elder writing to Friedrich III the Wise (transcribed by Gumbel 1926, 52-53, no. 12; Schuchardt 1851, I, 62; Bruck 1903, 333; Scheidig 1953, 157, no. 6; Schade 1974, 404, no. 47)

(29) 1508 November 30

[...] So hab ich euer f. gn. pildnus, durch derselben maler in ainen stain geschnitten, mir daneben zugeschickt, Hannsen Krugk behendigt und zu euer f. g. verrerm begern moglichs vleiß bei ime ghandelt; der hat solher pildnus, weil die unsers verstands meisterlich geschnitten ist mit mir sonder gefallen [...].

Date: Donnerstag St. Andreas 1508

Loc.: Nürnberger Briefbücher, Bd. 62, fol. 216 ff. Anton Tucher the Elder writing to Friedrich III the Wise (transcribed by Gumbel 1926, 53-54, no. 13)

1508/1509

(30) 1508 after July 13 - 1509 after May 3

Do[nnerstag] post Kiliani [13 July 1508]

Oswalt baumeister, solborder mit 1 4ß, [...] 1 nacht brochte die maler [...] 5 maler 5 tage [fol. 19r]

Do[nnerstag] post divisio apptolorum [20 July 1508]

5 maler alle die woche. [fol. 19v]

Do[nnerstag] post Maria Magdalena [27 July 1508]

5 maler, alle 4 tage. [fol. 20r]

Do[nnerstag] post Jacobi [27 July 1508 but this can only mean 3 August 1508]

5 maler [...] alle die woche. [fol. 21v]

Do[nnerstag] post Peterstag ad vincula [03.08.1508 but this can only mean 10 August 1508]

5 maler [...] alle die woche. [fol. 22r]

Do[nnerstag] post Laurentii [17 August 1508]

5 maler [...] alle die woche. [fol. 22v]

Do[nnerstag] post assumptiones marie [17 August 1508 but this can only mean 24 August 1508]

5 maler [...] alle 3 tage. [fol. 23r]

Do[nnerstag] post Bartholomäi [31 August 1508]

5 maler [...] alle die woche. [fol. 24r]

Do[nnerstag] post Egidii [7 September 1508]

5 maler [...] alle die woche. [fol. 24v]

Do[nnerstag] post Nativitatis Marie [14 September 1508]

5 maler [...] alle 5 tage. [fol. 25r]

Do[nnerstag] post exaltationis crucis [21 September 1508]

5 maler [...] sindt alle die woche. [fol. 25v]

Do[nnerstag] post Maurtii [28 September 1508]

5 maler [...] Pael Maler [...] alle die woche. [fol. 26v]

Do[nnerstag] post Michaelis [5 October 1508]

5 maler [...] Pael Maler [...] alle 5 tage. [fol. 27r]

Do[nnerstag] post Francisci [5 October 1508 but this can only mean 12 November 1508]

Paul Maler 3,5 tagk. [The 5 painters are not mentioned any more] [fol. 27v]

Do[nnerstag] post Dionysii [12 November 1508 but this can only mean 19 November 1508]

Paul Maler 2 tage. [fol. 28r]

Do[nnerstag] post Galli [19 October 1508 but this can only mean

26 October 1508]

Paul Maler 5,5 tage. [fol. 28v]

Do[nnerstag] post Simonis et Judae [2 November 1508]

Paul Maler [...] alle 4 tage. [fol. 30v]

- Do[nnerstag] post Omnium sanctorum [2 November 1508 but this can only mean 9 November 1508]
Paul Maler [...] alle 2,5 tag. [fol. 31r]
Do[nnerstag] post Martini [16 November 1508]
Lucas Maler mit 1 pfd. [Pferd] 2 nacht [...] 4 mahler, Paul Maler [...] alle die woche.
[The elector and his brother were also present this week. fol. 31v]
Do[nnerstag] post Katharine [30 November 1508]
4 mahler, Lucas Maler mit 1 Pferd [...] alle 5 tage. [fol. 32r]
Do[nnerstag] post Andree [7 December 1508]
4 maler, Lucas Maler mit 1 Pferd 5 tage. [The elector was present this week; fol. 33r]
Do[nnerstag] post Lucie [14 December 1508]
Lucas Maler mit 1 Pferd, 5 nacht, [...] 4 maler [...] alle 6,5 tage.
[The elector and his brother were also present this week. fol. 33v]
Do[nnerstag] Thome [21 December 1508]
Lucas Maler mit 1 Pferd [...] 7 maler [...] alle 4,5 tagk. [The elector and his brother were also present this week. fol. 34r]
Do[nnerstag] post Epiphanijs [11 January 1509]
4 maler [...] die woche. [fol. 34v]
Do[nnerstag] post Felicis in pincis [18 January 1509]
4 maler [...] alle die woche. [fol. 35v]
Do[nnerstag] post Sebastiani [25 January 1509]
6 maler unde buchdrucker, [...] Lucas Maler mith 1 Pferd 5 tage. [fol. 36r]
Do[nnerstag] post Conversionis Pauli [1 February 1509]
Lucas Maler mit 1 Pferd, [...] 6 maler, 7 buchdrucker [...] alle die woche. [fol. 36v]
Do[nnerstag] post Purificationis Marie [8 February 1509]
Lucas Maler mit 1 Pferd, [...] 6 maler und buchdrucker [...] alle die woche. [fol. 37r]
Do[nnerstag] post Apollonia [15 February 1509]
Lucas Maler mit 1 Pferd, 6 tage, [...] 6 maler unde buchdrucker, [...] alle die woche. [fol. 37v]
Do[nnerstag] nach Esto mihi [22 February 1509]
5 buchdrucker unde maler, [...] 7 tisscher an altarien. [fol. 39r]
Do[nnerstag] post Invocavit [1 March 1509]
Lucas Maler mit 1 Pferd 3 nacht, [...] 4 maler [...] alle 6,5 tag.
[The elector and his brother were also present this week. fol. 39v]
Do[nnerstag] post Reminiscere [8 March 1509]
Lucas Maler mit 1 Pferd, [...] 5 maler, [...] 6 tisscher an altarien. [fol. 40r]
Do[nnerstag] post Oculi [15 March 1509]
Lucas Maler mit 1 Pferd, 6 maler [...] 3 tischer am gestule [...] alle die woche. [fol. 40v]
Do[nnerstag] post Letare [22 March 1509]
[...] 7 maler unt 1 Pferd Lucas, [...] alle 6 tage. [The elector was present for six days. fol. 41v]
- Do[nnerstag] post Quasi modo geniti [19.04.1509]
[...] 7 maler mit 1 Pferd meist[er] Lucas, [...], 4 Tisscher am kirchgestule, [...] alle 5 tage. [The elector left Wittenberg on 9 April 1509 and he returned on 14 September 1509. fol. 42v]
Do[nnerstag] post Misericordia domini [26 April 1509]
7 maler unde 1 Pferd meister Lucas, [...], 4 tisscher am kirchgestule, [...] alle 3,5 tagk. [fol. 43r]
Do[nnerstag] post Jubilate [3 May 1509]
[...] 7 maler, [...] 4 tisscher am kirchgestule, [...] alle 2 tage. [fol. 43v]
Date: Post Kiliani 1508 – post Jubilate 1509
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 2751, fol. 19r–43v; Weekly statements of the number of persons employed from the Wittenberg, Zahna and Wörlitz offices (cf. Bruck 1903, 260–261)
- (31) 1508/1509
6 gr vor ein Slos mit 2 rigel und 1 par banth an 1 kast[en], das meister Lucas gemahlt und m g h dem jungern gen Torgow geschickt.
Date: Montag Walpurgis 1508 auf Dienstag Walpurgis 1509
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 2751, fol. 60r (cf. Schade 1974, 405, no. 66)
- (32) 1508/1509
100 fl golt Lucas Cranach meines gnedigsten hern maler durch Peter Bstoltzen aufgericht zu Antorf.
Date: Sonnabend der Eilftausent Jungfrawentag 1508 bis Sonnabend nach Bekehrung Pauli 1509
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4204, fol. 16r (transcribed by Schuchardt 1851, I, 59; Schade 1974, 404, no. 46)
- 1509**
(33) 1509 January
80 fl meister Lucas, meines gnedigsten hern maler, geben im neuen jarßmarkt anno 1509 uff Pfeffingers schrift.
Date: Leipzig, Sonnabend der Eilftausent Jungfrawentag 1508 bis Sonnabend nach Bekehrung Pauli 1509, Neujahrsmarkt
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4204, fol. 16v (cf. Gurlitt 1897, 41; Schuchardt 1851, I, 60; Bruck 1903, 297; Schade 1974, 404, no. 53)
- (34) 1509 January
4 fl 15 gr 7 d furlon von Lucas Maler var[s?] von Antorf gein Mentz, von Mentz gein Franckfurt und von Franckfurt gein Torgaw.
15 gr Mattis Slermer furlon gein Torgaw von zweien vassen, die Lucas Maler im marekt allhir zu Leiptzk eingelagt und von 3 lageln süßwein.
Date: Sonnabend der Eilftausent Jungfrawentag 1508 bis

Sonnabend nach Bekehrung Pauli 1509

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4204, fol. 28r (cf. Gurlitt 1897, 41; Schuchardt 1851, I, 60; Bruck 1903, 297; Schade 1974, 404, no. 54)

(35) 1509 April around 8

40 fl Lucas Maler zu farb geben im ostermarkt zu Leiptzk.
Anno domini 1509.

Date: Leipzig, Ostermarkt 1509

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4205, fol. 17v (cf. Gurlitt 1897, 42; Schuchardt 1851, I, 61; Bruck 1903, 297; Schade 1974, 404, no. 58)

(36) 1509

4 d Welßamer von Reichenbach hat 2 eichenn holtzer vonn
Cuntzen balbirer in Anders Otte haws geschleiffitt, meister
Hanßen dem maler ßall zur taffelnn zum nawen altar m.g.f.
seligenn post assumptiones.

Date: Torgau, Halbe Jahrrechnung Walpurgis (1.5.) und
Elisabeth (15.12.) 1509

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 2410,
fol. 88v (cf. Ritschel 1995, 44)

(37) 1509

8 fl fur 2 buch fein golt
1 fl 3 gr fur 2 buch silb
1 fl 15 gr fur 1 buch zcwischs golt
1 fl 8 gr 8 d fur 40 kan kadlofram
Lucas Malern zugschenckt

Date: no date given

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4207,
fol. 27r (cf. Gurlitt 1897, 42; Bruck 1903, 297; Schade 1974,
404, no. 65)

1509/1510

(38) 1509/1510

30 gr 6 d [werden für mehrere Schlösser und Schlüssel bezahlt,
darunter] von eyn schloß meyster Lucas zcu besserung

Date: Dienstag Walpurgis 1509 – Mittwoch in Walpurgis 1510.

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 2754,
fol. 71v; Book of accounts from the Wittenberg, Zahna and
Wörlitz offices (cf. Schade 1974, 405, no. 67)

(39) 1509/1510

45 gr vonn 3 kachelofenn zcu machen, 1 in der underen
hofestuben, 1 in die cantzelei unde 1 in der malerstuben
Kneypfe zcu Schmeideberg bezcahlth.

Date: Dienstag Walpurgis 1509 – Mittwoch in Walpurgis 1510.

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 2754,
fol. 72r; Book of accounts from the Wittenberg, Zahna and
Wörlitz offices (cf. Schade 1974, 405, no. 67)

1510

(40) 1510 September 30

So hat mir Hirßfelt in kurz e. g. g. pyldnuß duch Lucas Maler
seer wol gemacht uberschickt, die hab ich dem Eyßengreber
bey handen geben, der hat ein eyßen darnach abgemacht,
doch das noch bisher nit härten wollen, so lang bis e. g.
g. duch Luchaß Maler das besichtigt, ob ayniger mangel
daran befunden und mir angetzeigt wart e. f. g. ein abdruck
davon auf einer birkenrinde, das ist meines ansehens wol
und dem zugeschickten muster gantz gemäß gemacht,
dabei noch ein muster vondem eyßen zu den halben gulden
gehorende, vorseh mich werde e. g. auch nit mißfallen seyn ec.
Date: Nürnberg, Montag nach Michaeli 1510

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa. 2299,
fol. 41r; Anton Tucher the Elder writing to Friedrich III the
Wise (transcribed by Schuchardt 1851, I, 63; Scheidig 1953,
158f., no. 10; Schade 1974, 405, no. 74)

1511

(41) 1511 April around 20

47 fl 14 gr 6 d Lucas Granach, m. g. herrn hoffmaller,
geantwurt zu betzalung etlicher bucher golds, farbe und
anders lauts [eines] tzettell seiner handschrift, freitags im
ostermarkt zu Leiptzick entpfangen.

Date: Leipzig, Ostermarkt

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4212,
fol. 55r (cf. Gurlitt, 1897, 42; Bruck 1903, 297; Schade 1974,
405, no. 80)

(42) 1511 August 1

Zehrung von des gotteshauses wegen. 5 groschen 3 neue
pfennige geben zu leihkauf da man die tafel verdinget hat
Vincula Petri.

Date: Neustadt/Orla, Vincula Petri.

Loc.: Kirchenarchiv Neustadt/Orla, Kirchenrechnungen
1496–1528. A. IV. 1.31, Regal 1, Fach 14, fol. 70v (transcribed
by Scheidig, 1953, 159, no. 12; Schade 1974, 405, no. 72;
Hintzenstern, Dressler 1986, 58)

(43) 1511 September around 29

30 fl Steffan Malher zu Wittenberg [by another hand:] dem
maller, d. im uns g. her [...]

Date: Leipzig, Michaelismarkt

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4213,
fol. 45r (cf. Bruck 1903, 301)

(44) 1511 September around 29

14 fl 3 gr Lucassen Malr von Cronach fur etzlich erkauffte stück
inhalts des zcettel seiner handschrift uf s. bevelh entricht.

Date: Leipzig, Michaelismarkt

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4213,
fol. 46r (cf. Gurlitt 1897, 42, 43; Bruck 1903, 297)

(45) 1511 September around 29

Ich Lucas Crannach zu Wittenberck mit diser meiner hant geschriff beken, das mir dye geschickten des rats zu der Neustadt an der Orlaw von wegen irs gotshaus funffzig fl reinisch zu Leipzig im herbstmarck anno im alften jar auf die arwet, die sie mir einer tafel halben angedingt, entrichtet haben.

Date: Leipzig, Michaelismarkt

Loc.: Formerly ThHStAW, Ernestinisches Gesamtarchiv, Reg. B. 31904, fol. 48r (transcribed by Hoffmann 1954, 15–16; Scheidig 1953, 159, no. 13; Schade 1974, 405, no. 82; Hintzenstern, Dressler 1986, 58)

1512

(46) 1512 January 5

1 fl meister Lucas Granach zu Wittenberg, unsser gst. u. g. hern mallher, für zcway unser lieben frawen bildenis, welche unser gst. h. her der churfürstl. unserm g. hern hertzog Jorge und seiner gnad. malh. zu Eylburg an nawen jarstag so ir f. g. bayeinander gewest, geschenkt.

Date: Leipzig, Dienstag im Markt.

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4214, fol. 37r (transcribed by Gurlitt 1897, 42; Bruck 1903, 297; Scheidig 1953, 161, no. 16; Schade 1974, 405, no. 85)

(47) 1512 April around 11

40 fl meister Lucas Kranach, unsers g. hern maler zw Wittbg, für eine gemalthe taffel die der obermarschalk bei ime bestelt und sein fürstlich [Gnaden?] die selbe zu entrichten, angeschaffen und furlon, berurtem obermarschalck geschank, geschen auf [...] weysung des haylthums zu Wittenberg.

Dat. Leipzig, Ostermarkt

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4215, fol. 70r (transcribed by Gurlitt 1897, 43; Bruck 1903, 297; Schade 1974, 406, no. 91)

(48) 1512 June 10

Aber e l wyl ich nit verholden, dos ich verschafft, dos meyne ouch der gessellen decken gemacht seyn, ouch den maller zugeschickt und wohe mir e l decken, die vor e l sal geschickt worden werhe, wolld ich syhe mit allem fleis zu machen ouch besteldt hoben.

Date: Weimar, am Tage Corporis Christi 1512

Loc.: SHStAD, Elector Friedrich III the Wise writing to Duke Georg of Saxony (transcribed by Langenn, 1852, 92)

(49) 1512 September around 29

20 fl meister Hansen Tzinckeyesen, dem tischer zu Wittenberg, die ime von meinem g. hern in der vorgangen fasten zu einem

haws, welchs er zu Wittenberg erkaufft, aus gnad zuleyhen vorschafft. Auch uff das malh 20 fl vom hoffcamerschreiber so ein [Steffan] Stroelh entfangen, die ime furder an seine quatermer gelt sollen abgezogen werden, solch gelt hat sein hausfrau in gegenwart meister Lucas von Cranach Moller.

Date: Michaelismarkt

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4216, fol. 50v (cf. Schade 1974, 406, no. 96)

(50) 1512 September around 29

40 fl 13 gr meister Lucas Granach, unser g. h. moller zu Wittenberg, zu entrichtung etlicher hynderstelliger arbeit, uff das furstlich beylager hertzog Hainrichs von Sachssen et uber das szo ime er von Steffan Strolh hoffcamerschreiber empfangen, inhalts seiner hantschriefft.

Date: Leipzig, Michaelismarkt

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bd. 4216, fol. 60v (cf. Gurlitt 1897, 42; Bruck 1903, 297; Schade 1974, 406, no. 96)

1513

(51) 1513 January

17 fl meister Lucas Moller fur drey wappen meinem g. hern hertzog Johanß gemacht uff [...] (seinß) angebung Ganglauffs von Witzleuben, seiner f. g. camerer, inhalts einer tzettel seiner hantschriefft ffreitags in dem newen jars marckte.

Date: Leipzig, Freitags in dem newen .jars marckte,

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4217, fol. 23v (cf. Gurlitt 1897, 43; Bruck 1903, 298; Schade 1974, 407, no. 104)

(52) 1513 May 24

5 fl vor 2 stechdecken, dornach 4 stechdecken ie eines vor 1½ fl, mach vir 6 fl.

10 gr vor 10 silbern oren.

6 fl vor 2 große bogen.

30 par menlein die hoffarb, ein par vor ein gr, macht 30 gr.

10 menlein, wie sich die fursten kleiden, eins vor 1 gr mach und 10 rock j eins vor 1 gr.

20 gr machen die 10 menlein und die 10 rock.

1½ fl 2½ gr vor zweifundfünfczig gedruckte wapen, dar vor auf zu streichen mit farben

4 gr die rendecken in 2 hent ein zu nehen.

7 fl vor 2 decken zum ren- und stechen graf Albrecht

Summa 28 fl 14 gr.

[invoice chit inserted, fol. 17r]

28 fl 14 gr vor etlich renndeckenn und gemoltde nemlich Lucas Moller betzalt noch lawt seyner zettell.

[sum entered in accounts book fol. 16r]

Date: Belzyg, Dienstag nach Trinitatis

iLoc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 5531, fol. 16r, 17r; Invoice chit from Cranach for items delivered as part of the tournament equipment that Duke Johann took with him on his visit to Mecklenburg, Pommern and Brandenburg (cf. Schade 1974, 407, no. 106)

(53) 1513 June

Ausgabe zur neuen tafeln.

105 alt schock, dem malermeister Lucas bruder gegeben, als er die tafel gesetzt hat am abend Johannis Baptiste.

12 schock 12 groschen den gesellen und seinen frauen zu trankgeld.

5 schock Nicel Clingenstein fuhrlohn. Hat die tafel helfen zu Wittenberg holen.

9 schock 19 groschen 4 alt pfennig hat verzehrt Hans Dornberg mit 2 knechten mir vier der stadtpferd auf dem hinwege gen Wittenberg und wieder anheim mit den malern auf 6 personen und 6 pferde den Montag vor Viti.

26 groschen 2 neu pfennig vor eisenwerk, blei, leim, nagel und anderes zu der tafel bedürftig - [?] zu rüsten und - [?] dem schlosser zuvor mehr und geben und vertan.

5 groschen der schosserin zu trankgeld, da die malergesellen in der herberge gelegen. Vor die kost hat man dem schosser nichts dürfen geben.

22 groschen von der tafeln und anderen kirchengeräte zu weihen und dem bischof zu geschenken geben.

13 groschen verlust an - [?] tuche mit boten und ander fertigung zu der tafeln gebraucht.

31 schock 10 groschen hat der rat von des gotteshaus wegen meister Lucas gegeben lauts seiner quittanzie im neuen jahrsmarkt.

Summa dieser ausgabe zur neuen tafeln 167 schock 7 groschen 5 alt pfennig.

Date: Neustadt/Orla, Dienstag Cruc. Exalt. 1512 bis Dienstag nach Egidy 1513

Loc.: Kirchenarchiv Neustadt/Orla, Kirchenrechnungen 1496 - 1528. A. IV. 1.31, Regal 1, Fach 5 (transcribed by Scheidig 1953, 159, no. 14; Hoffmann 1954, 10, 122 (date given there 1512); Schade 1974, 406, no. 93 (date given there 1512); Hintzenstern, Dressler 1986, 7-8)

(54) 1513 June 26

Ich Matthes Cranach mith dieser meynen aygenen handschriftt öffentlich bekenne, das ich von Hans Dornberg und Clawsen Hans Gotshaws veter zcw sant Johannis zcur Nawstath von wegen Lucas Cranach meins bruders hundert gulden reynisch entpfangen, die sie mir bar uber bezalt, sage sie angezeigter summa von wegen meynes bruders hir in und mith crafft diez briefs quidit, ledig und lose.

Date: Neustadt/Orla, Sonntag nach Johanneis Baptiste. Anno ecto 13.

Loc.: Formerly ThHStAW, Ernestinisches Gesamtarchiv, Reg. B. 31904, fol. 48, 49 (transcribed by Hoffmann 1954, 16; Scheidig 1953, 159, no. 15; Hoffmann 1954, 10, 122 (date given there 1512); Schade 1974, 406, no. 95 (date given there 1512); Hintzenstern, Dressler 1986, 8.)

(55) 1513 September 13

Der stempfel halb, davon mein gnediger her euch negst geschriben, dy von newem sollten gemacht werden, das wollet beruhen lassen, dann mein gnediger her will durch seiner gnaden maler maister Lux den form von seiner gnaden angesicht, desgleichen des adler, wie hoch und tieff ain igliches sein sol, in ain stain schneiden lassen, und euch dann dasselb zuschicken, und weiter dabei schreiben, wie es mit denselben newen eyssen gehalten werden soll.

Date: 13. September 1513

Loc.: Tucher'sches Familien-Archiv, Nürnberg (1889), Letter from the elector's chamberlain Pfeffinger to Anton Tucher (transcribed by Ehrenberg 1889, 99; Michaelson 1900, 271).

(56) 1513 November 13 and following days

Ausgabe uff das furstlich ehelich beilager zu Torgaw meins gnedigen hern herczog Johanssen etc. suntags und etlich nachfolgende tage, nach sancti Martini, anno domini 1513 auß der camer furgewendt. [fol. 1]

13 gr losung Lucas Maler uff 2 pf [erd] 13 tag.

2 fl 14 gr 8 d schlaffgelt uff mayster Lucas Maler gesellen uff 4 wochen, ye 10 gesellen ein nach 2 d uff ein. [fol. 35v]

Ausgab maller arbayt

68 fl Lucas Maler hat meinem gnedigen hern hertzog Johansen 11 rendeckn, 13 stechdecken, 10 helmzceychn un fur ander arbayt lauts maister Lucas zedel.

3 fl maister Lucas Malers gesellen trinckgelt, seyn ir 10 gewest, uff bevel des Pfeffingerß.

80 fl maister Lucas moler von dem gemelde bey seiner aygener farbe und lon den 10 gesellen bey 7 wochn gearbeyt in den gemachen und kirchen etc. lauts seiner zcedel.

14 fl für 42 grose und cleine wappen fur tuch, goldt, farb und macherlon an die tebicht in die stuben, do die fursten an der hochzceyt gesessen, lauts meyster Lucas zcedel.

10 gr fur leymat zu den cleynen wappen, an den himel komen, maister Lucas gesellen einer entpfangen.

Lateris 165 fl 10 gr

Summa der maller arbeit 165 fl 10 gr [fol. 45v/46r]

Gemeine ausgab: [...]

2 gr den mollern fur topffe zcu farb, freytag nach omnium sanctorum [fol. 56v].

Date: Torgau, Sonntag und nachfolgende Tage nach Sancti Martini 1513

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4226,

fol. 35v, 45v, 46r, 56v (cf. Schuchardt 1851, I, 63–64; Scheidig 1953, 162, no. 19; Schade 1974, 407, no. 108)

1514

(57) 1514 March 29

Durchleuchtigster hochgeborner chufurst unnd her[r]e ewern churfurstlichen gnaden sein mein underthenige vorpflichte und gehorsame dinste meins hochsten vormogung alzeyt gud williglichen bereyt, gnedigst churfurste und her[r]e ewe[rn] furstliches gnaden beghrd nach, habe ich neben meist[er] Lucas und Hansen tischer, die pforkyrchen besichtigt, die dan wol nach des tischers angeben zu machen ist, aber die weile o fg die vonn applag gantz fettig haben, weil ist es nicht wol tuhelich, ursachen gar heiligenzeyt die sich naher und in der kyrchen gantz beswerlich zu arbeten, dan es wil erbot mit rusten und dag holtz uf zutzihen neme[n], szo ist kein droke holtz das dar zu tuglich vorhanden, wie nw e. f. g. der sachen bis nach dem applag anstant geben wolt, szo wolt ich mittelbar zeyt balcken und ander holtz dar zu nottorftig hawen und fure[n] lassen, das mittelle[r] zeitt dohre und leycht zuheben wurde, ouch brothe gar zu vorschaffen, das von stur nach den feyertagen angefangen und nach enande[r] slewnig gebawet und gecleybet werde, was e. churf. g. gemuth hat inne ist das bitte ich mir gnediglichen zu troffin, In dem und andern richte ich mich nach e. churf. g. alzeyt gehorsam und willigk, dat.[um]mittwoche nach Letare anno 1514, e. churf. g. underthenigk schoss[er] zu Wittenb[er]gh Anthony Nymegk.
Date: Wittenberg, Mittwoch nach Letare 1514

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 23b. Nr. 1–24b. Nr. 1, fol. 10. The Wittenberg Schosser, Anthony Nymegk, writing to Elector Friedrich III the Wise (cf. Bruck 1903, 258; Schade 1974, 407, no. 113)

(58) 1514 April around 16

6 fl fur ein kleines gemaltes teffelein unnsers herren Ihesu Barmhertzigkeit für unsern gnedigsten herrenn von Lucassen Mahler zu Wittenbergk erkaufft.

Date: Leipzig, Ostermarkt 1514

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4239, fol. 29v

(59) 1514 April around 16

Tischer zu Wittenbergk, meister Hans

16 gr meister Hannsen, des Pfeffingers tischer, auslosung uff 2 nacht uff bevehl Pfeffingers

Date: Ostermarkt 1514

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4239, fol. 65r (cf. Bruck 1903, 275)

(60) 1514 April around 16

50 fl meister Lucassen von Cranach zu Wittenbergk uff arbeyt

innhalts seiner quitantzen dogegen ubergeben, darauff sich Pfeffinger die abrechnung mit ime furnehmen soll.

Date: Leipzig, Ostermarkt 1514

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4239, fol. 70r (cf. Gurlitt 1897, 43; Schuchardt 1851, I, 65; Bruck 1903, 298; Scheidig 1953, 162, no. 20; Schade 1974, 407, no. 115)

(61) 1514 July 9

Meister Merten Tüncher 2 gr von dem gemele einzutünchen uber dem fenster geringst rum darin adelauff tischer vertafelt hat.

Date: Sonntag nach Visitatio Virg. Marie

Loc.: ThHStAW; Building of Schloss Torgau (transcribed by Bruck 1903, 243)

(62) 1514 September around 29

20 fl meister Lucas von Cranach Mahler zu Wittenbergk von der arbeyt, so er an dem thorm uffm schloß Thorgau gethan, solch geld hat er selbst sambstags im marcket entpfangen.

Date: Leipzig, Michaelismarkt 1514

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4240, fol. 78v, 93r; The identical note is written under: "Ausgabe durch gnade vorlihen gelt" (fol. 78v) but is, however, deleted with a reference to the entry under "Gemeine ausgabe" (fol. 93r) (cf. Gurlitt 1897, 44; Bruck 1903, 298; Schade 1974, 407, no. 118)

(63) 1514/1515

5 gitter auf dem gange wo man aus Herzog Hansen gemach gehet uff die beyden thorme je 1 für 5 gr Ulrich Carmerkxt [?]. 153 [?] gr von denselbigen gittern anzustreichen in rott und gel mit oll farbe, Franz Maller.

3 gulden Michael Tischer von dem eyn thorm zuvorteffeln yn dem obisten gemag ym knopff kegen die stadt von eym eygn holz gemacht, hat ym Adlaff Tischer also verdingt.

56 gr Michel Tischer für 8 benk zu machen yn die zwu gemalte stoben mitte yn thormen von eyn eyge holz.

2 tischlergesellen haben meister Adlof Tischer helfen vertafeln in dem obersten gemach yn den beyden thormen, haben 9 wochen darin gearbeit bey m. gl. h. kost, auch Adloffs arbeit dauert darin so lange, ebenfalls b. m. gl. h. kost.

24 gr für 1 ß kortze rust bret hat Merten Tüncher gebraucht zu den zwei thormen ausswendigk zu rusten wann der tünch was ein teilsch an etlich orttern ab gessprungen von dem gebeude, hat auch dasselbige mal alle fenster ausswendig umb die thorme reyn vor tünchet, Michel Moller von alden Dresen betzalt.

Date: Sonntag Bartolome

Loc.: ThHStAW; Building of Schloss Torgau (transcribed by Bruck 1903, 243)

1515

(64) 1515 September around 29
60 fl meister Lucassen Cranach maler zu Wittenbergk uff arbeyt der thorn zu Wittenbergk unnd Torgaw uff rechnung gebenn furstlichen bevehl nach inhalts dagegen empfangner quitanttz. Solch gelde hat meister Adolff Fischer [oder Tischer] zu Wittenberg von seinetwegen gezalt empfangenn, dat. freitags im marck.

Date: Leipzig, Michaelismarkt
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4266, fol. 67r (cf. Gurlitt 1897, 44; Bruck 1903, 298; Schade 1974, 408, no. 126)

(65) 1515

60 fl maß Lucas uff die arbethen der "arbit" so schon hat maßen seiner zcethell anergs deglich in dies acht ergang. [Randbemerkung:] hatten ann ime fil Jahresquittantz 486 fl 9 gr

Date: 1515
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4251, fol. 49r

1516

(66) 1516 January
207 fl 12 gr Hannsen von Thaubenheym uberantwort zubezalung und entrichtung meister Lucas Cranach zu Wittemberg unnd meister Cristianus Goldschmidt daselbst für ire abgerechent arbeyt. Mittwoch nach loßgang des marcks [...]

Date: Leipzig, Mittwoch nach Beginn des Neujahrsmarkts
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4258, fol. 16v (cf. Gurlitt 1897, 44; Bruck 1903, 298; Schade 1974, 408, no. 129)

(67) 1516 March around 23

10 gr 3 d auflösung einem fuhrmann, hat meister Lucas von Cranach den maler von Thorgau gein Leipzig fuhr mit 2 gr uff ein nacht.

Date: Leipzig, Ostermarkt 1516
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4262, fol. 83v (cf. Gurlitt 1897, 44; Bruck 1903, 298; Schade 1974, 408, no. 130)

(68) 1516 March around 23

10 fl 17½ gr meister Lucas Cranach von W[it][t][en]b[er]g inclusis etzliche arbeyt fur meinen gnädigen hernn inclusis 5 fl für ein heylthumbkasten inhalts seind altahrs. 2 fl 17 gr als meister Lucas in studher[?], die er Hannß Wurffel den schmitt[?] gegeben, die er uff freuntlich erborgt uff die barkirch zu W[it]tenb[er]g gemacht geben. Solch geld hat meister Lucas mitgetragen errichtet.

Date: Leipzig, Ostermarkt 1516

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4262, fol. 84r (cf. Gurlitt 1897, 44; Bruck 1903, 298; Schade 1974, 408, no. 130)

(69) 1516 June 16

Nachdem dir unser rath und lieber getreuer Dieterich von Schönberg vier bild abgekauft hat, ist derhalben unser begern, du wolest solche bild wol verwart gein Berlin in Christoph Binzen haus schicken, der furter befehlt hat, uns dieselbigen zuzufertigen. Und übersenden dir hiemit bey disem zayger drei und zwanzig guldin, wie dann der kauf für solche bild getroffen. Wolten wir dir, an dem du uns sonders gefallen thust, gnediger meinung nit verhalten.

Date: Montag nach St. Veits 1516
Loc.: Formerly Staatsarchiv Königsberg, Flt. der Ordenszeit 38, fol. 111; Duke Albrecht of Prussia writing to the Wittenberg painter (transcribed by Ehrenberg 1899, 143-144, no. 4)

1517

(70) 1517 January
18 fl Lucas Maler zu Wittenberg for ein gemalt teffelein, dye er meynen g. herrn gemacht hat.

Date: Neujahrsmarkt 1517
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4272 (transcribed by Gurlitt 1897, 45; Schuchardt 1851, I, 67; Bruck 1903, 298; Schade 1974, 408, no. 135)

(71) 1517 January 20

Es ist unser gutlich begehren, du wollet uns ufs furderlichts inen Hercules, der ein nackenden kerel zu tod druckt, malen und fertigt machen, wie du an diesem maß die leng und breit uf ein tafel oder brett zu malen finden wurdest.

Date: Königsberg, Fab. et Sebast.
Loc.: Formerly Staatsarchiv Königsberg. Flt. d. Ordenszeit 39, fol. 75; Duke Albrecht of Prussia writing to Lucas Cranach (transcribed by Ehrenberg 1899, 144, no. 5; Scheidig 1953, 163, no. 22; Schade 1974, 408, no. 137)

(72) 1517 March 8

Hochgeborner furst freuntlicher liber vetter, e. l. schicke ich moyster Lucos und wuhe er eher hett wondern können, weld ich e. l. den ouch geschickt hoben, er wird ouch e. l. berichten meyn bedencken des teffleins holben und wos dorouf e. l. geffolhen wird werden, e l. mir wol onzoigen.

Date: Torgau, Sonntag Reminiscere 1517
Loc.: SHStAD, Elector Friedrich III the Wise writing to Duke Georg of Saxony (transcribed by Langenn, 1852, 103, no. 27; Schade 1974, 408, no. 139)

(73) 1517 March 25

Hochgeborner furst fruntlicher liber veter, mich hodt moister Lucos bericht, wyhe ich ouch ouß e l schreyben vormercke, dos e. l. dos müster zu den tefflein wol geffolhe. Solchs hobe ich gerne gehordt, hobe ouch moister Lucos beffolhen flies zcu hoben, domit solche orboidt gefertiget werde. Er hodt mich ouch bericht, wos e l bedencken sey, dos dye taffel wol zchiren soldt ec, nuhe mogk eß wol seyn dos e l bedencken gudt sey ober eß hodt eß got allßo nicht gefugit wos ober seyn gotliche bormherczigkoid forder verloyhen wyll sthett bey seynem wyllen. Dos hobe ich e l. fruntlicher moynung nicht vorholthen wollen, don e l zcu dynen bin ich geneigt.

Date: Altenburg, am Tag Annunciationis Marie 1517

Loc.: SHStAD, Elector Friedrich III the Wise writing to Duke Georg of Saxony (transcribed by Langenn 1852, 107, no. 28; Schade 1974, 409, no. 140)

(74) 1517 April around 12

12 gulden für ein teffelein daran dye Heilig Dreyvaltigkait stehet, Maister Lucas dem maler zcalt.

10 fl demselben maler von zweyenn schlitten zu malenn.

Date: Leipzig, Ostermarkt

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4273, fol. 25r (transcribed by Schuchardt 1851, I, 67; Gurlitt 1897, 45; Bruck 1903, 299; Schade 1974, 409, no. 141)

(75) 1517 August 29

[...] dann das tischbrett ßo ich Lucas Mahler gegeben ist im schloß zu Gerstungen aus dem scheidt oder brennholtze geßeßen und ausgehawen wurden [...].

Date: Eisenach, Sonnabends [...] Sancti Johannis Baptista anno etc 17

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 227a-229 a, Nrn. 1 u. 2, fol. 32v; Letter from Johann Osswald Schultheiss' to the Elector Friedrich III the Wise (cf. Bruck 1903, 265; Schade 1974, 409, no. 143)

(76) 1517 November 22

[...] Ich hobe gerne gehordt, dos e l gemohel meyn fruntliche libe mümhe on den Morien bildt gefollhens gehobt und e l wollen irer libe ires fruntlichen erbittens mit hohem flies doncken. Wosthe ichs ouch zu vordynen dorzcu werhe ich worlichen goncz wyllig. Und dos e l moyster Lucos dye taffelen allßo zcu geffollen gemocht, hobe ich gerne vernommen und wil e l nicht bergen, dos ich in bedenken gesthonden, dye taffelhen werden e l nicht geffolhen von ime nicht gemocht seyn. Dos olles hobe ich e l fruntlicher meynung nicht verholden wollen, den e l zu dynen bin ich wyllig.

Date: Wittenberg, Sonntag nach Presentacionis Marie 1517

Loc.: SHStAD, Elector Friedrich III the Wise writing to Duke Georg of Saxony (transcribed by Langenn, 1852, 108, no. 29; Schade 1974, 409, no. 145)

1518

(77) 1518 May 13

1 fl vor die Lucrecia, die ich gemacht hab, vor das tefelein vom tischler und vom zubereiter und zu vor gulden,

4 fl vor die klein Lucrecia,

10 gr vor die zwey futer dar in sie vor wart sein.

[at reverse by another hand:] Ich Christiano Goltsmid [Döring] hab von weg[en] Laucas Maler empfang[en] 5 fl 10 gr nach laut disses zcettel am auffart tag [Himmelfahrt] im 18. jar zu Altenburg. [Weiter daneben:] Lucas Maler zcettel bit er yetz zu betzalen.

Date: Altenburg, 13.05.1518

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 2r, 2v, Elector Johann's personal accounts (cf. Scheidig 1953, 164, no. 25; Schade 1974, 409, no. 151)

(78) 1518 May 22

[...] Wir schiken dir hiermit zwey muster ains auf papier und das andere hultzern, wie du sehen wurdest und ist unser gnedigs begeren, du wollest unns zu Nuremberg zum furderlichsten, nach dem papieren muster zwey schlenglein zu giessen bestellen, also das du in aller mas, wie das muster auf dem papier die lenng und größ haben, allein sol der haken an der seiten nun den dorbei geschriben stet, nit daran gemacht werden [...], wollest auch bestellen so diese schlangen fertig, das zu jedem ain hultzern kasten ader gefess gemacht word [...].

Date: Aldenburg, Sonnabend in d. heilg. Pffingstwochen

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2305, fol. 1r. Letter from the elector to Georg Ratzel in Nuremberg (cf. Bruck 1903, 332)

(79) 1518 September/October

2 gr trangkgelt von golt und geslagen silber einzumachen, hat Laüx Maler aüsgebñ

Date: Leipzig, Michaelismarkt

Loc.: StACo LA A Nr. 9960, fol. 2r (transcribed by Hambrecht 1987, 69)

(80) 1518

42 gr meister Lucas von denn fenlein die kleinet hirauff zcumhalen. (Ausgab vorm schißhoff)

Date: Wittenberg, 1518

Loc.: StAWB Kämmererechnung, fol. 158v (cf. Förstemann 1836, 650; Schuchardt, 1851, I, 67; Schade 1974, 409, no. 149)

1519

(81) 1519 May 10

5 gr bottenlohn Sommer genant, hat eyn teffleyn von Wittenbergk anher getragen, bevelh Pfeffingers

Date: Lochau, Sonnabend nach Misericordias domini

Loc.: StACo LA A Nr. 9947, fol. 6r (transcribed by Hambrecht 1987, 69)

(82) 1519 October 1

4 ß 7 gr 2 d Lucas Maler, bevelh Hirschfels fur eczliche farbe vom schieff anzustreichen etc.

Date: Lochau, Sonnabend nach Michaelis

Loc.: StACo LA A Nr. 9947, fol. 33r (transcribed by Hambrecht 1987, 69)

(83) 1519 October 3

3 gr Schlett dem maller wellichs er furder dem tischer fur 2 rennen zcu machen geben darauff die renner die Juditt unnd Lucretia gespannt, bevelh Hirschfeldts

Date: Lochau, Montag nach St. Michaelis

Loc.: StACo LA A Nr. 9947, fol. 36r und 36v (transcribed by Hambrecht 1987, 69)

(84) 1519 October 11

2 ß 8 gr 4 d Lucas Maler, nhemlich 2 fl 16 gr fur das teffeleyn, dorauff die Lucretia gemalet, und dem tischer fur das futterdunch, bindtgarn, bursten etc., lawt seiner zcetteln, bevelh Hirschfeldts

Date: Lochau, Dienstag nach Dionysii

Loc.: StACo LA A Nr. 9947, fol. 49r (transcribed by Hambrecht 1987, 69)

(85) 1519 October 12

5 gr abermals dem tischer von zweyen futtern zu gemalthen teffeleyn. Ist m.g.h. her Johanßen wurden gemacht. Bevelh Hirschfeldts

Date: Lochau, Mittwoch nach Dionisii

Loc.: StACo LA A Nr. 9947, fol. 51r

(86) 1519 October 14

8 d Anthonius tischer von einem rham zu machen m.gt. h.

Date: Lochau, Freitag nach Dionisii

Loc.: StACo LA A Nr. 9947, fol. 53r

(87) 1519 October 21

5 gr Anthonio tischer, nhemlich 3 gr fur 1 lb leym hat Schlett Maler zu den 2 futtern verbraucht und 2 gr fur 1 futter uber die zwey ander futter, bevelh Hirschfeldes

Date: Lochau, Freitag nach Ursule aber 11000 Jungfrauen

Loc.: StACo LA A Nr. 9947, fol. 63v

(88) 1519 October 26

2½ gr Anthonius tischer vor 20 farbschyn und fur 1 futter uber die clein Lucrecien, Schlet Maler angesagt, bevelh Hirschfeldes

Date: Lochau, Mittwoch nach Crispini et Crispiniani

Loc.: StACo LA A Nr. 9947, fol. 70r (transcribed by Hambrecht 1987, 69)

1520

(89) 1520 January 29

5 ß 57 gr Lucas Maler zcu Wittenbergk durch Hans Feyoll entricht fur eczliche teffelein gemalth unnd fur 1 groß geschniczt mannes bildt, wie m.gt.h. weyß, am tage Conversionis Pauli unnd nur furder abgerechennt

Date: Lochau, Sonntag nach Conversionis Pauli

Loc.: StACo LA A Nr. 9947, fol. 158v (transcribed by Hambrecht 1987, 70)

(90) 1520 February 12

1 ß 28 gr Lucas Maler nhemlich 2 fl seinen gesellen zu trangkgelth unnd 2 fl des goldschmides gesellen

Date: Lochau, Sonntag nach Apollonie

Loc.: StACo LA A Nr. 9947, fol. 173v (transcribed by Hambrecht 1987, 70)

(91) 1520 February 13

12 gr 6 d fur 1 futter zcu einem silbern kenleyn, hat Lucas Maler meinem gt.h. machen lassen

Date: Lochau, Montag Valentini

Loc.: StACo LA A Nr. 9947, fol. 174v (transcribed by Hambrecht 1987, 71)

(92) 1520 April 13

27 gr 2 d Lucas Maler zu Torgaw verzerth mit dreyen gesellen und einem fhurman mit 2 pferden 1 nacht, inclusis 9 gr fhurton 1 gr losung, bevelh Hirschfeldts

Date: Lochau, Freitag nach Resurrectio Domini

Loc.: StACo LA A Nr. 9947, fol. 208r (transcribed by Hambrecht 1987, 71)

(93) 1520 April 15

2 gr 8 d bottenlon Sunen mit einem schachtley n von Wittenbergk gen Lochaw, hat Lucas Maler m.gt.h. geschickt

Date: Lochau, Sonntag Quasimodogeniti

Loc.: StACo LA A Nr. 9947, fol. 211r (transcribed by

Hambrecht 1987, 71)

(94) 1520 May 15

6 gr botlon mit meynes gt. hern briven gen Wittenbergk zcum schosser, inclusis 2 gr trangkgelt hat ein teflein mein gt. herrn anher getragen, Hans Betmeyster angesagt

Date: Lochau, Dienstag nach Vocem Jocunditatis

Loc.: StACo LA A Nr. 9949, fol. 27v (transcribed by Hambrecht 1987, 71)

(95) 1520 August 8

1 ß 6½ gr Lucas Maler fur die Lucrecia mit dem welsn geheuß auf 3 kleinen teflein, inclusis 3½ gr auslosung zur Schweinicz

und Lochau, b[evelh] Hirsfelts entricht

Date: Lochau, Mittwoch nach Donati

Loc.: StACo LA A Nr. 9949, fol. 211r (transcribed by Hambrecht 1987, 72)

(96) 1520 August 26

4 gr botlon mit meins gt. hern briven geyn Wittenbergk zum Lucas Maller der wappen halben

Date: Lochau, Sonntag nach Bartholomei

Loc.: StACo LA A Nr. 9949, fol. 250r (transcribed by Hambrecht 1987, 72)

(97) 1520 September 12

Lieber getreuer und rath wir haben meyster Lucaßen Maller von Wittenbergk, eyn teffelen vordingt zu machen doruff wir yme etlich gelt ytzo sollen angeben lassen. Begeren derhalb du vollest yme uff sein ansuchen dreysig guulden uff arbeit geben der wollen wir dich himit in rechnung entnemen. In dem besthet unser gefellig meynung.

[by another hand:] Unser amtman und rentmeister zu Leipzig rath und lieben getreuen Jorgen von Friedebarth. Meister Lucas 30 fl soll Wulf Brenntzdorf haben.

[by another hand:] Ich Wolf Brenntzdorf bekenne, daß ich ub erwahnt 30 fl vom rentmeister empfangen durch mein handschrift.

Date: Dresden, Mittwoch nach Maximini Matri

Loc.: SHStAD. Loc. 7352, fol. 1; Payment order from Duke Georg of Saxony

(98) 1520 December 6

[...] Fur das ander, so sol kein inwonere oder frembder kramer zu Wittenbergk gestossen wirtz, confect, zugker, tiriack, geferbtes wachs etc. noch anders so man sonderlich in die apoteken gebraucht feyl haben oder verkauffen, außgeschlossen in den freyen jharmergkten sol solchs unnd anders einem yederman so lange der jharmargkt weret unnd nit lenger feyll zuhaben frey sein. Unnd nachdem man in den apoteken sussen wein nit geraten magk, damit nie daran auch nit mangel sey, so soll Lucas oder sein erben, wan ein rath zu Wittenbergk in irem keller nit susse wein schengken macht haben, susse wein in der apoteken zu schengken, doch uff entrichtung geburlicher pflichtung [...].

Date: Lochau, Donnerstag Sankt Niclas 1520

Loc.: Lutherhalle Wittenberg (transcribed by Lücke 1998, 38 - 39; Schuchardt 1851, I, 69-70; Schade 1974, 410, no. 166)

1521

(99) 1521 April 4

Meister Lucas schreibet myr, das es von den genaden gottes mit dem sterben sich gancz wol zu der Lochau und dor umb heltet, des gleichen zcu Wittenbergh und Torgaw, dorbei

zzeigt er mir an, das er e.l. etliche taffel kein Wormis

geschickt, dor under sey eynne mir zcustendigk, die habe mein maller gemallet, yst der halben meyn freuntliche bitt an e. l., e. l. wollen myr die gemalte taffeln schicken, auff das ich sehen mochtte, was guttes er gelernet hette.

Date: 4. April 1521

Loc.: Letter from Duke Johann to Elector Friedrich III the Wise (transcribed by Kolde 1881, 45 without giving location of source; Michaelson 1902, 5, 58)

(100) 1521 July 22

Und seynt nev etliche pletze ufm salh, do dass gemelle von gefallen ist und wider getüncht [...] so ist zu Torgaw mehr kein maller, dess sulchen gemelde wider formlich kundt anstreichen, wie es e. churf. g. gefellig wer, dass meister Lucas ein gesellen dohin schickt, der hette bey acht tagen daran zu arbeiten.

Date: Torgau, Montag St. Marien Magdalenen tag 1521

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 282v. Nr. If, fol. 1v; Wolf Metzsch, Gleitzmann zu Torgau reporting on the buildings in the Schiessgarten at Torgau; he is talking about the new house. (transcribed by Bruck 1903, 246; Schade 1974, 410, no. 172)

(101) 1521 September around 29

66 gulden Lucas Malern von der orgel ym schlos Weymer zu molen.

Date: Leipzig, Michaelismarkt

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4309, fol. 59r (transcribed by Gurlitt 1897, 45; Schuchardt 1851, I, 74; Bruck 1903, 299; Scheidig 1953, 167, no. 39; Schade 1974, 410, no. 173)

1522

(102) 1522 May 11

3 fl 9 gr Lucas Maler, nhemlich 2 fl fur eyn teffeleyn, dorauf Pariß mit dreyen weybern gemalth, 7 gr fur das futter, 1 fl fur die taffel, dorauf, m.g.h. conterfeyt unnd 2 gr außlöschunghe, lawts eyner zcettley, bevelh Hirschfeldes

Date: Lochau, Sonntag Jubilate

Loc.: StACo LA A Nr. 9923, fol. 10r (transcribed by Hambrecht 1987, 73)

also: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. Nr. 1795, fol. 68v (Schade, 1974, 411, no. 175)

(103) 1522 May 29

7 fl 19 gr 6 d Lucas Maller, nhemlich 5 fl vor das Marion bilde auf dem grossen blatt, 10 gr fur das futter, 20½ gr fur lerchen unnd 1 fl 10 gr fur vier orter g[eben] unnd außlöschung etc. lauts seiner zcetteln, Hans Kemerling angesagt

Date: Lochau, Donnerstag Ascensionis Domini

Loc.: StACo LA A Nr. 9923, fol. 36r (transcribed by Hambrecht 1987, 73, no. 175)
also: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb Nr. 1795, fol. 92v (Schade, 1974, 411, no. 176)

(104) 1522 June 10
2 fl Lucas Maler fur eczliche alde müncze, welliche m.g.h. hat schlagen lassen, zcu seiner gnaden handen genommen bevelh Hans Kemmerlingk
Date: Lochau, Dienstag nach Pffingsten
Loc.: StACo LA A Nr. 9923, fol. 56r (transcribed by Hambrecht 1987, 73)
also: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb Nr. 1795, fol. 106 (Schade, 1974, 411, no. 178)

(105) 1522 November 9
15 gr hat m.gt.her Lucas Maler geben lassen, der sovil werdt gewesth ist, Hans Betmeister angezeigt
Date: Lochau, Sonntag nach Leonhardi
Loc.: StACo LA A Nr. 9923, fol. 99v (transcribed by Hambrecht 1987, 75)

(106) 1522 November 9
3 gr [sic!] 4 gr 6 d fur 2 New Testament eingebunden und 3 rohe, hat Lucas Maler m.gt.h. erkaufft, Hans Betmeister angezeigt
Date: Lochau, Sonntag nach Leonhardi
Loc.: StACo LA A Nr. 9923, fol. 99v (transcribed by Hambrecht 1987, 75)
also: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb Nr. 1795, fol. 137v or 138 (Schade, 1974, 411, no. 181)

(107) 1522 November 9
1 fl 9 gr der alden Seylerin auß gnaden zcu einem pelcz, Lucas Maler entpfangen, b[evelh] Hirschfelt
Date: Lochau, Sonntag nach Leonhardi
Loc.: StACo LA A Nr. 9923, fol. 100r (transcribed by Hambrecht 1987, 75)
also: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb Nr. 1795, fol. 137v or 138 (Schade, 1974, 411, no. 181)

(108) 1522 December 4
15 fl 6 gr Lucas Maler zcu Wittenbergk entricht, nhemlich 12 fl fur 2 teffeleyn etc.
Date: Lochau, Donnerstag Barbare
Loc.: StACo LA A Nr. 9923, fol. 140v (transcribed by Hambrecht 1987, 76)

(109) 1522 December 24
3 gr 4 d einem botthen mit Lucas Malers brieffen von Wittenbergk anher zcu m.gt.h.

Dat. Lochau, Mittwoch am Hl. Christabend
Loc.: StACo LA A Nr. 9923, fol. 171r (transcribed by Hambrecht 1987, 76)

1523

(110) 1523 February 20
1 fl 8 gr Lucas Maler lauts einer zcetteln, nemlich 4 gr fur 1 Futter zw zcweien sylberleuchter zw drehen 18 gr davon zw uberziehen mit leder und fur holtz
3 gr 4 d fur 10 buchlein vom babest und Vreiburgischen kalp und 3 gr 8 d stalimdt uf 2 pfferdt 4 nacht und 3 pferdt 1 nacht
Date: Lochau, Freitag nach Estomihi
Loc.: StACo LA A Nr. 9923, fol. 214v (transcribed by Hambrecht 1987, 77)

(111) 1523 February 27
7½ gr Antzhonio tischer fur eyn rehemem m.gt.h. zu einem tuche von einer wasserw[?]aghen zu machen
Date: Lochau, Freitag nach Invocavit
Loc.: StACo LA A Nr. 9923, fol. 225r

(112) 1523 March 12
9 gr Lucas Maler entricht, nhemlich 14 gr fur 2 neue betbuchleyn eingebunden
3 gr fur 1 betbuchleyn ungebunden unnd 1½ gr stalimdt 1 nacht auf 3 pferdt
Date: Lochau, Donnerstag nach Oculi
Loc.: StACo LA A Nr. 9923, fol. 246v (transcribed by Hambrecht 1987, 77-78)

(113) 1523 May 16
3 gr hat der schosser fur botlon ausgeben mit briven, welche Lucas Maller und der schosser von Wyttenbergk anher geschickt die er forder m.gt.h. nach gein Eylbergk geschickt, als s[ein] chur[furstliche] g[naden] das nescht malh hidan abgereyst
Date: Lochau, Samstag nach Vocem Jocunditatis
Loc.: StACo LA A Nr. 9954, fol. 4r (transcribed by Hambrecht 1987, 78)

(114) 1523 June 20
5 gr hat Lucas Maler einem botten geben, wellicher ein Nyderlendisch teffeleyn von Wittenbergk gegen der Lochaw und forder nach der Schweinicz getragen
Date: Lochau, Samstag nach Viti
Loc.: StACo LA A Nr. 9954, fol. 58v (transcribed by Hambrecht 1987, 78)

(115) 1523 June 20
1 fl 11 gr fur 6 sandtseyger, welliche Lúcas Maler hat in silber fassen lassen unnd von 2 sandtseyger, die zcurbrochen

gewehst m.g.h.

Date: Lochau, Samstag nach Viti

Loc.: StACo LA A Nr. 9954, fol. 58v (transcribed by Hambrecht 1987, 79)

(116) 1523 August 19

2 fl 19 gr 6 d fur 27 stücke in das schießhawß, yhe einen fur 1½ gr Lucas Maler entricht lauts seiner handtschrifft; 6 fl Lucas Maler lauts seiner handtschrifft auf ansagen Hans Betmeisters entricht fur eyßen zcu geschossen etc.

Date: Lochau, Mittwoch nach Assumptionis Marie
Loc.: StACo LA A Nr. 9954, fol. 116r, 116v (transcribed by Hambrecht 1987, 80)

(117) 1523 September 14

4 fl 4 gr Lucas Maler lauts einer zcetteln entricht, nhemlich 35 gr 10 d fur 40 kan Francken weyn, inclusis 2½ gr fur das feßleyn; 2 fl 3 gr fur 3 bücher Moyßy und einzubinden und anzustreichen unnd 5 gr 2 d fur 5½ kan weyn gegen der Lochau zu kosten bracht auch 1 gr außloßungen oder stalmydt auf 2 pferdt 1 nacht, Hans Betmeister angesagt

Date: Lochau, Montag Exaltationis Crucis
Loc.: StACo LA A Nr. 9954, fol. 135r (transcribed by Hambrecht 1987, 80)

(118) 1523 September around 29

5 gr zcerung dem maler nach Weymar.

Date: Leipzig, Michaelismarkt
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4321, fol. 33v (cf. Gurlitt 1897, 45; Bruck 1903, 299; Schade 1974, 411, no. 191)

(119) 1523 September around 29

10 gr 6 d fur 2 lot lack.
2½ fl fur ½ lb oelblau.
1 fl 15 gr fur 1 lb 12 [lot?] blau von feldung 1 lb umb 1 fl 1 alt [gr].
1 fl 17 gr 10 d fur 1½ lb 11 lot lasurblau ides umb 1 fl.
1 fl 6 gr fur 2½ lb 12 lot schlicht blau feldung, ides umb 9 gr
14 gr 8 d fur 2 lb und 4 lot ascherblau, ides lb umb 7 gr
15 gr 9 d fur ½ lb scheffergrün.
11 gr 6 d fur 4 lb 12 lot bleyweyß
5 gr 3 d fur ½ lb zinober
5 gr fur 1 lb spangrün
4 gr fur 2 lb bley gelb
1 fl 5 gr 3 d fur 1 lb parißrot
2 gr für 2 lb mennig
6 d fur ein schachtel
Latere 12 fl 8 gr 3 d
Date: Leipzig, Michaelismarkt
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4321,

fol. 34v (cf. Gurlitt 1897, 45; Bruck 1903, 299; Schade 1974, 411, no. 191)

1524

(120) 1524 May 28

16 gr 6 d einen fhurmanne von Wittenbergk hat 2 mahll wey[n] anher und taffell wider gegen Wittenbergk Lucas Malern bracht.

Date: Lochau, Sonnabend nach Corporis Christi
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 1796, fol. 31r (cf. Schade 1974, 412, no. 197)

(121) 1524 August 15

23 fl 3½ gr 1 d Lucas Moller entricht, nemlich 17 fl 13 [gr] 6 d fur 3 stug leimpt holt, 1 stugk 74 eln zcu 1½ gr sal in m[eines] g[nädigen] h[errn] kammer gein Kolditz etc.
5 fl fur das tuch darauff m g h abkantter feygt etc.

Date: Lochau, Sonntags am taghe Assumptionis Marie Virgines
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 1796, fol. 118v (cf. Schade 1974, 412, no. 203)

(122) 1524 September 16

16 fl Lucas Moller entricht fur zcwey gemalte tucher, uff eine[m] der Parisch [Urteil des Paris], uff dem andern der Aristotelis [Aristoteles und Phyllis], seint m g hern worden lauts seiner hantschrift b Hans bet[zahlt]

Date: Lochau, Freitag nach Exaltationis Crucis
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 1796, fol. 150r (cf. Schade 1974, 412, no. 207)

(123) 1524 December 20

5 fl Bastian fischer zu seiner hochzeit [...]
21 fl Lucas Maller fur 4 gemalte tuchlein und furlon
Date: Lochau, Dienstag Vigilia Thome
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 1796, fol. 221r (cf. Schade 1974, 412, no. 213)

(124) 1524 December 26

1 fl 6 d hat Lucas Maller vann Wyttenberg aus geben, nemlich 1 fl Nicklas tischer vann einem muster dem thorm zew Kolditz etc.
Date: Lochau, Montag am tage Steffani
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 1796, fol. 231v (cf. Schade 1974, 412, no. 215)

(125) 1524

Hansen Jheger von Aldenburg umb solch das er den boden, sunst auch umb die teffeleyn und hengende blume, umb die tucher in Euer Chruf. gnad. stub und kammer, nachm reichlichsten gemalt, die brusttefflung in der stub fladerweyst gemacht und mit firmis überzogen, die ramen und [...] auch das beth blau angestrichen und von farben gemacht, daruber

gefertigt und die brusttefflung darselbst gefladert und gefirnist und die decke nach Lucas Malers angaben gändert.
Date: 1524

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 975, fol. 99v; Half-yearly statement of accounts from the Colditz office (Thomas Schmidt, Leisnig, personal communication)

1525

(126) 1525 January 13

10 gr zu lon Veit tischer von eym grossen rhamen und der narren benecke zu machen

Date: Torgau, Sonnabend nach Erhardi

Loc.: StACo LA A Nr. 9967, fol. 49r

(127) 1525 January 13

4 fl 1½ gr Lucas Maller entricht, nemlich 3 fl fur das tuchlein, welches er von Leyptzygk bracht etc.

Date: Lochau, 1525

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 1796, fol. 259r (cf. Schade 1974, 413, no. 220)

(128) 1525 August 3

Durchleuchtigster hochgborner furst, genedigster her. Ewern kurfurstlichen genaden sey mein vorpflichter unterteniger dinst ale zeit zu vor bereit. Genedigster her. Hie schick ich ewer genaden in dem langen ror die drey visirung, die gros mit dem bild, das kumbt an die want und die schrift dar newen. So gehort die visirung mit dem wapen auf das grabp. Das las ewer genaden gancz flach gisen, also flach als sie kunen, aber das an der want macht man der hoben, wie sie dann sehen wie hoch das geschniten angesicht ist. Das werden sie wol wisen zu machen. Ich hab das angesicht lasen flach schneiden, es wer sunst zu hoch im gisen worden, aber wens gegosen ist, so will ichs mit leipfarben malen, so sol es es s. k. g. seliger gantz gleich werden. Der part ist zu kraus geschniten, man kans nit wohl anders ins holcz zu wegen pringen. nit mer. ich befehch mich ewern k. f. genaden. Datum am dunerstag nach S. Peters Ketenfeiher im 25. jar. Ewer k.f.g. gantz unterteniger Lucas Cranach

Date: Wittenberg, Donnerstag nach S. Peters Ketenfeiher 1525

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. D. 211, fol. 12r Lucas Cranach to Elector Johann (transcribed by Junius, 1921/1922, 525; Scheidig 1953, 167, no. 40; Schade 1974, 413, no. 233)

(129) 1525 September 20

Malon – 25 fl Lucas Maler

Date: no location given, Quatember auf Crucis Exaltationis

Loc.: StACo LA A Nr. 9958, fol. 15v (transcribed by Hambrecht 1987, 81)

also: ThHStAW, Ernestinisches Gesamtarchiv, Reg. o Nr. 236 (Schade, 1974, 413, no. 233)

(130) 1525

Außgab vor den bauhe des rathauses.

Vor gemelde.

42 gr Lucas Mahler geben von der decken in der neuen weynstuben.

1 fl 20 gr vor die treppe zu mahlen am rathauße.

20 gr idem geben von den 4 fenstern an der obirn stuben, die grun farbe anzustreychen.

Date: Wittenberg, 1525

Loc.: Formerly StAWB Kämmererechnungen 1525

(transcribed by Förstemann 1836, 650; Schuchardt 1851, I, 86; Schade 1974, 412, no. 219)

(131) 1525

36 gr Cristoff Schramm in Lucas Cranachs buchladen vor 2 ryß papier geben.

Date: Wittenberg, 1525

Loc.: Formerly StAWB Kämmererechnungen 1525 (transcribed by Förstemann 1836, 650; Heller 1821, 7; Schuchardt 1851, I, 70; Schade 1974, 412, no. 218)

1526

(132) 1526 January 13

9 gr fur zwein groß ramen zu gemalten kurissern in m.gst. hern gemach

Date: Weimar, Sonnaben nach Erhardi

Loc.: StACo LA A Nr. 9963, fol. 48v

(133) 1526 January 30

3 gulden 12 gr fur 100 messebucher und ordenungen gotesdinsts, hat doctor Martin Luther außgehen lassen, Lucas Maler ubirgeschickt

Date: Torgau, Dienstag nach Conversionis Pauli

Loc.: StACo LA A Nr. 9967, fol. 89r (transcribed by Hambrecht 1987, 81)

(134) 1526 February 2

7 fl 8 gr für 300 messebucher und ordenungen gotesdinsts, doctor Luther außgehen lassen, Lucas Maler zcalt, inclusis 5 gr botlon von Wittenberg domit anher

Date: Torgau, Freitag Purificationis Marie

Loc.: StACo LA A Nr. 9967, fol. 95v (transcribed by Hambrecht 1987, 81)

(135) 1526 February 15

10 gulden Lucas Maler zu Wittenberg fur etliche arbeit, so er m.gst. herren gemacht, ubrantwort zu Torgau durch Johan Rietefel am dorstag nach Estomihi anno etc. [15]26

Date: Torgau, Donnerstag nach Estomihi

Loc.: StACo LA A Nr. 9964, fol. 53v (transcribed by Hambrecht 1987, 81)

- (136) 1526 February 15
14 gr außloßung und zcerung der herberge Lucas Maler von Wittenberg und sein gesellen
Date: Torgau, Donnerstag nach Estomihi
Loc.: StACo LA A Nr. 9967, fol. 129r (transcribed by Hambrecht 1987, 81)
- (137) 1526 March 15
5 gr Sommer, dem amtsboten von Wittenbergk, hat m.gst. hern ein teffelein von Lucas Maler bracht; 6 gr fur leder ubir dießelbe taffel
Date: Torgau, Donnerstag nach Letare
Loc.: StACo LA A Nr. 9968, fol. 38r (transcribed by Hambrecht 1987, 82)
- (138) 1526 March 18
5 gulden 4 gr fur ½ buch feingolt, ½ buch zwischgolt, 1 lb. blau und 1 virtel schiffergrun farbe, hat maister Lucas m.gst. hern maler anher geschickt
Date: Torgau, Sonntag Judica
Loc.: StACo LA A Nr. 9968, fol. 49r (transcribed by Hambrecht 1987, 82)
- (139) 1526 April around 1
8 gulden 2 gr Lucas Maler von 300 wapen zu machen welche uf den reyßen an dye herbergen geschlagen werden, inhalts seyner hantschrift zcalt
Date: Leipzig, Ostermarkt
Loc.: StACo LA A Nr. 9974, fol. 34r (transcribed by Hambrecht 1987, 82)
- (140) 1526 May 4
9 gr fur ein rhamen zu eynem gemalten tuch
Date: Torgau, Sonnaben nach Cantate
Loc.: StACo LA A Nr. 9968, fol. 169r
- (141) 1526 May 7
5 gr Somer, dem amtsboten von Wittenberg, hat etliche gemalte wapen anher tragen; 3 gr fur ein leder darein dye wapen geschlagen
Date: Torgau, Montag nach Vocem Jocunditatis
Loc.: StACo LA A Nr. 9968, fol. 174v (transcribed by Hambrecht 1987, 82)
- (142) 1526 September 29
Lieber besunder! es ist an dich unser gütlich beger, du wollest uns alle neue guthe leswirdige bücher, so im kurße bey adder annder werenn aufgegangen, und umb euch zu bekommen, und weliche auch villeichte aus dem Latein ins Deußsche transferirt, und sonderlich etzliche exemplarie Laurencii Vallensis de Donacione Constantini in das Deusche aus dem Leteyn bracht und vorlängst gedruckt, keuffen und uffs förderlichts hiereyn sendenden, dye wollen wir allenthalben gerne betzalen und solichs dorüber umb dich in allen gnaden verschulden [...].
Date: Vicesima Nona Septembr. 1526
Loc.: Formerly Staatsarchiv Königsberg, Flt. der Ordenszeit 26, 40; Duke Albrecht of Prussia writing to Lucas Maler in Wittenberg (transcribed by Voigt 1820, 244; Ehrenberg 1899, 146)
- (143) 1526 November 25
40 gulden fur 15 lot perlin hat mein gst. her von doctor Luther erkauffen lassen, c. Johan Rietefßels, zcalt zu Weymar durch Lucas Malern am sonstage Katharine anno etc. [15]26
Date: Weimar, Sonntag Katharine
Loc.: StACo LA A Nr. 9964, fol. 48v (transcribed by Hambrecht 1987, 82)
- (144) 1526 November 25
16 gulden auß gnaden maister Lucas dem maler zu Wittenbergk ubirantwurt zu Weymar, c. Johan Rietefßels am sonstage Katherine anno etc. [15]26
Date: Weimar, Sonntag Katharine
Loc.: StACo LA A Nr. 9964, fol. 60v (transcribed by Hambrecht 1987, 84)
- (145) 1526 December 21
1 gulden Dhebes Messerschmidt von Wittenbergk, welchn Lucas Moler zu m. gst. h. gefertiget
Date: Weimar, Freitag Thome Apostoli
Loc.: StACo LA A Nr. 9970, fol. 206r (transcribed by Hambrecht 1987, 84)
- 1526/1527**
(146) 1526/1527
5 gr fur 3 Pfund leym von Lucas Maler erkaufft, hat der Tischer zcur arbeit gebraucht.
Date: Wittenberg, no date given, Amtsschossor zu Wittenberg, from Walpurgis 1526 to Walpurgis 1527
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 2787, fol. 73v (cf. Schade 1974, 414, no. 240)
- 1527**
(147) 1527 March 5
7 gr botlon Tebes Messerschmidt, hat Lucas Maler mit etlichem gemelde von Wittenberg anher geschickt
Date: Torgau, Dienstag nach Estomihi
Loc.: StACo LA A Nr. 9963, fol. 186r (transcribed by Hambrecht 1987, 84)
- (148) 1527 April 5
14 gr außloßung und zcerung in der herberge maister Lucas

dem maler

Date: Torgau, Freitag nach Leatre

Loc.: StACo LA A Nr. 9981, fol. 50v (transcribed by Hambrecht 1987, 84)

(149) 1527 April 14

5 gr Maulhans boten in geschefft m. gst. hern gein Wittenberg zu Lucas Malern hat getragen

Date: Torgau, Sonntag Palmarum

Loc.: StACo LA A Nr. 9981, fol. 75v (transcribed by Hambrecht 1987, 84)

(150) 1527 May 20

5 gr botlon Lamprecht hat 3 rendecken geyn Wittemberg

Lucas Maller bracht

Date: Torgau, Montag nach Cantate

Loc.: StACo LA A Nr. 9981, fol. 158v (transcribed by Hambrecht 1987, 84)

(151) 1527 May 26

5 gr botlon Cuncz Schadelit in geschefft m. gst. hern gein

Wittenberg zu Lucas Maler umß herwiedertragen

Date: Torgau, Sonntag Vocem Jocunditatis

Loc.: StACo LA A Nr. 9981, fol. 171r (transcribed by Hambrecht 1987, 84)

(152) 1527 July 27

Ungefährlicher auszug der ausgabe auf die hiemfahrt m. gn. jungen herrn herzog Johann Friedrich. Akt dieses auszug Sonnabend nach Jacobi a. d. 1527 für malerarbeit 221 gulden 10 groschen 10 pfennig.

Date: Sonnabend nach Jacobi a.d. 1527

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. D. 58. V, fol. 46v (transcribed by Scheidig 1953, 168, no. 44; Schade 1974, 414, no. 244)

(153) 1527 December 21

11 gr traggelt dem ambtsboten von Gotha, hat m. gst. hern ein teffelein von Lucas Maler bracht und von eym brief an ambtman zu Wasserburgk

Date: Torgau, Samstag Thome Apostoli

Loc.: StACo LA A Nr. 9983, fol. 219r (transcribed by Hambrecht 1987, 85)

(154) 1527

Ausgab maler arbeytt.

1 fl 9 gr 2 d Hanßen dem hoff-maler zu farb zu m g h arbeyt inhalts seiner zettel,

4 fl 9 gr abernals Hansen Maler zu farb inhalts seiner zettel,

2 fl 2 gr 8 d Eustachius Maler, nemlich 1 fl 5 gr von 26

landsknechten zumahlen vor jd. 1 gr, 6 gr 8 d von 8 reuterleyn unnd 12 gr fur 6 stecher, von jd. 2 gr uff befehl des marschalks

sontags Judica [7 April 1527] lauths seiner zett[el], solch gemelde ist auß der cantzlei den amptleuten und andren zugeschenkt, darnach so sich in die farb gebracht,

2 fl 3 gr 10 d Frantzen Maler zu Torgau von 55 parschand von ider 10 d lauths seiner zettel,

12 gr 2 d fur Arynolts ostinbatirn, safftgrun gnug allaun meyster Hansen inhalts seiner zettel,

5 fl Brostg Sollparrth [Ambrosius Silberbart?] hat 5 wochen meyster Hansen helffen mahlen,

4 fl 2 gesellen haben iglicher 14 tag helffn mahlen,

9 gr fur ohl, hat meyster Hans zu Lertt. hollen lassen inclusis 5 gr potlohn danach;

8 fl Frantzen Maler hadt 5 wochen meyster Hansen helffen arbeyten unnd sein haws, kolen feuer und anders darzu

gelihen, innhalts seiner zettel uff befehl des Marschalks, 15 gr erst[mals] wir zu Liptzik hat meyster Hans ein zeyt lang

helffen mahlen uf befehl des marschalks,

2 fl 6 gr Hansen dem hoff maler fur 3 lb firnis, 8 lb menich,

1 buch silber, 2 lb pley vergs [?] unnd 1 lb spangrun im ost. erkaufft,

2fl 9 gr für 6 grun gitter für die fenster [...]

13 fl 13 gr meister Lucas Maler zu Wittenberg von etlicher arbeyt lauts seiner zettel, ingleichen 3 fl 3 gr vor 1 stucken, farbe und anderes.

169 fl 1 gr Meyster Lucas fur folgende stuck auf befehl des fursten zahlt, nemlich 36 fl fur die 2 großen tucher uffm salh

in der hofstuben,

17 fl 1 gr für 240 ellen leyemat, 1 ellen fur 1½ gr,

Lat. 196 fl 7 gr

8 fl fur die umhenge umb die grossen tucher, da verguldt knopf anhangen,

40 fl fur 20 menner mit den langen helsßen uff die mummerei,

30 fl fur 30 affen,

3 fl fur 3 schweynskopff,

20 fl fur 2 renndeken,

5 fl fur 1 stotzdek.

10 fl fur dg. [dergleichen?] 7 helm zaichen.

16 fl maister Hansen meyster 3 maler zu mennich, berkgrun

innhalts seiner zcettel uff bevehl [... Ritels?] zalt

Summa maler arbeyt 217 fl 5 gr 4 d

Date: Torgau, Register uber die heymfardt anno domini

1527; Statement of accounts drawn up by Bernhard Sol for expenses on behalf of "des jungen Herrn" Johann Friedrich,

Duke of Saxony

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4342, fol. 24r-25v (cf. Scheidig 1953, 168, no. 43)

1528

(155) 1528

3 fl 30 gr Lucas Kranach von dem thore zu mahlen und die schrift zcu vorgulden.

Date: Wittenberg, 1528

Loc.: StAWB Kämmererechnungen 1528, fol. 221v
(cf. Förstemann 1836, 650; Schuchardt 1851, I, 86; Schade 1974, 414, no. 252)

(156) 1528

8 gr Lucas Cranach in der apotecken des jhar uber von sigelwachss und materialia zcur tintten hat der stadtschreiber hollen lassen.

Date: Wittenberg, 1528

Loc.: StAWB Kämmererechnungen 1528, fol. 233r (cf. Schade, 1974, 414, no. 252)

(157) 1528

2 ß 37 gr 1 d Lucas Cranach von etzlich holtz und wergstucken geben, welche zcum bauhe des rathauses, auch ein teyll zum bauhe der schirren kommen, und yhme bisher unbezalt blieben, seind yhme dis jhar allererst endtrichtet. 24 gr 1 d Steffan Tischer gegeben von etlichen hacken büchsen wyder zcu fassen und ladestecken und stopffel zcu machen und sonst die buchsen wyder anzurichten, gegeben.

Date: Wittenberg, 1528

Loc.: StAWB Kämmererechnungen, fol. 235v (cf. Eschenhagen 1927, 100; Schade 1974, 414, no. 252)

1529

(158) 1529 August 2

An Lucassen Molern zu Wittenberg. Lieber getrawer. Wir haben dier ungerlich vor dreyn jaren befohlen, uns die hochgeborne fürstinne, frawe Katherina, hertzogin zu Sachsen etc., geborne hertzogin von Mecklenburg etc., unsere freuntliche liebe gemahell, abzucontrafeitten etc., welche contrafactur wir bisher nach nit gesehen adder bekommen: begeren derhalben, das du uns solch gemelt contrafeitbilde (woe es nit albereidt gemolet), dweile du die besoldung albereidt darauf entpfangen,[...] vorfertigest und uns forderlich kegenn Freiberg [...] schickest.

Date: Dresden, 1529, August 2

Loc.: SHStAD Cop. 95, fol. 165v, Duke Heinrich of Saxony writing to Lucas Cranach (transcribed by Distel, 1888, 515; Lindau 1883, 233; Schade 1974, 435, no. 256)

1530

(159) 1530 May 19–June 24

6 gr trangk gelt des malers knechten, do sie m. g. jungen h. ein gemalet tuch nemlich genelogiam des hausses zu Sachsen etc. bracht

Date: Wittenberg, Donnerstag nach Cantate bis Freitag Johannis Baptiste

Loc.: StACo LA A Nr. 10036, fol. 11v (transcribed by Hambrecht 1987, 86)

(160) 1530 November 19

2 gr fur 1 tafel zu einem gemelte idem

Date: Torgau, Sonnabend Elizabet

Loc.: StACo LA A Nr. 10004, fol. 131v

1530/1532

(161) 1530/1532

21 gr Lucassen Maler zu Wittenberg von einer newen Fennigk zuschnitzen und zumahlen, ist auff der Lochischen Hard am Torgische und Zculstorffische Wege angeschlagen, wie dan hivor auch aldo eine gewest.

30 gr Eustachius Maler zu Torgau von einem newen sper zum seiger zumhalen gegeben.

Date: Lochau, Walpurgis 1530 bis 1532

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 1812, fol. 45v, Jahrrechnung des Amtes Lochau (cf. Schade 1974, 435, no. 269)

1531

(162) 1531 February 8

52 guld[en] 1 gr vor 1 gros gemalt tuch Lucas Maler zu Wittenberg lauts eynen zcettel zcalt zu Torgau am Mittwoch nach Dorothee anno [15]31.

Date: Torgau, Mittwoch nach Dorothee 1531

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4352, fol. 33v (cf. Schade 1974, 435, no. 262)

(163) 1531 May 28/29

3 gulden 15 gr hadt meister Laux Maler von Wittenberg in geschafft m. gt. h. außgeben,

6 gr botlon eynem bothen, hadt eyn gemalt teffelein von Wittenberg anher getragen

Date: Torgau, Sonntag und Montag Pffingsten

Loc.: StACo LA A Nr. 10011, fol. 196 – also: Nr. 10015, fol. 206r (transcribed by Hambrecht 1987, 86)

(164) 1531 November 19

13 ß 18 gr Lucas Maler fhur arbeit, ßo er am tuech und umbhengen, oben an der decke, in der fladern stuben gethan laut seiner uberantwortung vortzeichniß inhaltendt, inclusis 2 ß 48 gr fhur 90 ellen leyemat, zwedecke und umbhengen, des seindt 16 ellen yede zu 2 gr unnd 24 ellen yedezu 1½ gr erkaufft wordenn, obgemelte summa geldis ist dem maler uff m. g.hern bevehl gegeben worden laut des bevehlbrieffes.

Date: Wittenberg, Walpurgis bis Elizabeth 1531

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 2795, fol. 45r; Amtsbuch von Wittenberg (cf. Schade 1974, 435, no. 265)

1531/1532

(165) 1531/1532

40 gr Lucas Maler von den zehn laternen zw fyrnissen, blaw, weiß, leybfarbe und grun angestrichen, von einer 4 gr laut seiner hantschriftt.

Date: Wittenberg, Walpurgis 1531 bis Walpurgis 1532

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 2795, fol. 68v, also Reg. Bb. 2796, fol. 107r, Jahrrechnung Valtin Forster

(166) 1531/1532

22 gr 6 d Lucas Maler vom hirschgewey in der schosserey und den ketten, doran es hangt in öhll farbe, gestossen und von m. g. te hern wappen uff ein schilt zu malen, inclusis 1½ gr vom schilde zuschmiden laut einer vortzeichnung.

Date: Wittenberg, Walpurgis 1531 bis Walpurgis 1532

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 2796, fol. 107r, Jahrrechnung Valtin Forster (cf. Schade 1974, 435, no. 273)

1532

(167) 1532 February 14

2 gulden 17 gr vor ½ buch feingolt, 1 buch silber, firnis und oel zu m.gst. hern schlitten Lucas Maler zcalt; 3 gulden idem vor ein gros wapen, ist dem wirthe zu Northaußen geschickt wurden

Date: Torgau, Mittwoch nach Estomihi

Loc.: StACo LA A Nr. 10028, fol. 122r (transcribed by Hambrecht 1987, 87)

(168) 1532 September around 29

Außgabe uf churf[ursthlichen] bevelh [...] 21 gulden 17½ gr

Lucas Maler zu Wittenberg inhalt eyner vorzceichnus

Date: Leipzig, Michaelismarkt

Loc.: StACo LA A Nr. 10028, fol. 47v (transcribed by Hambrecht 1987, 87)

1532/1533

(169) 1532/1533

20 ß 9 gr 9d von des landvogits frauentzimmerstuben und kammern zu machen [...] nhemlichen:

[... darunter auch Cranachs Arbeiten]

4 ß 1½ gr vordingt gelt Lucas Malern, der lantvogt mith ime, umb so hoch selbst das gedinge gemacht, von der stubendecke und von den wenden oben bey den fenstern zumalen und von einem hirschgewey in die stuben hangende.

Date: Wittenberg, Jarrechnung Wolfen Schifferdeckers

Walpurgis 1532 bis Walpurgis 1533

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 2799, fol. 49v, 50r (cf. Schade 1974, 435, no. 275)

(170) 1532/1535

Veitenstisch zum boden der hertzogen stuben und kammer.

Veitenstisch zum boden in der grossen stuben des frauenzimmers.

Ambrosius Tisch stuben und kammerboden, jungfrauenstube, kammer gang.

23 ß Veit Tisch zum sal boden.

Heinrich Winch thurmstube.

42 ß Clemen Zimmermann im thurm zu decken.

Hans Katzmann salstuben und bänke daselbst.

2 ß zum gerüst der maler in der salstuben.

2 ß nägel dem Zeugmeister daran er die harnisch hengkt.

Thebus Lehmann haussmannsthüren.

Bürtius Lubelin zum tafeln unter dem tach.

Ambrosius Tischer zum tafeln uf die andern seiten.

Burkardt Kirfelder rahmen anzuschlagen.

Meister Clemen die treppen.

2 ß den malern zu den tüchern (nägel nämlich).

1 ß den malern zu den tüchern.

Lienhart Tischer zum decken über d. cantzlei, zu bänken.

Heinrich Winter zum boden und bank in der salthurm stuben.

Einnahme von verzynnte nägel zum kupferdach von Jacob

Kolmer Nagelschmid [...].

10 bildhauer eyssen werden bezogen.

1 lang eyssen meister Cunz zu dem werkstücken,

4 den bildhauer.

13 stück leinwand zu den tüchern [...].

Date: 1532/1535 (?)

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 283b. Nr. I n; Building of Schloss Torgau (transcribed by Bruck 1903, 248-249)

1533

(171) 1533 May 10

109 gulden 14 gr Lucas Malhern inhalt seiner quitantz 60 par teffelein daruff gemalt sein die bede churfursten selige und lobliche gedechtnus, sonnabents nach Jubilate

Inclus. 3 gr vor ein schrein dartzu.

Date: Leipzig, Sonnabend nach Jubilate

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4361, fol. 44r (transcribed by Schuchardt 1851, I, 88; Schade 1974, 435, no. 276)

(172) 1533 August 31

Gottes gnad und frid duch christum sampt untertenige dienst in allem gehorsamst zuvor. Durchlauchtigster hochgeborner churfurst gnediger herr. Eure churfurstl. gnaden weiß ich unterteniger meinung nicht zu verhalten, daß mir meister Lucaß Cranach Maler kurtz vorgangener tage umb e. churfurstl. gnaden sechzehn anhen zum gemalten tuch zur deck hie zu Altenburg aufm schloß in der gaststuben geschriben.

Nun hab ich im die acht von e. churfurstl. gnaden hern vateren hochlößlich und selige gedechtnus namhaftig vertzeichnet zugeschickt, neben auch antzeigung etlicher von den acht anhen e. chfstl. g. von der mutter her damit er desto furderlicher zum werck mege komen. Was mir nun an bemelten anhen abgeet werden e. chfstl. g. in hiebey verwarten zeddeln finden. Ungezweifelt e. chfstl. g. werden meiner untertenigen antzeige nach wol vleis verwenden lassen, dise ding zu furderlichen ende zubringen. Dan ich hochgedachter anhen nicht alle gehabt noch wissen zu erlangen ec.
Date: Altenburg, Sonntag nach Johanni Enthauptung
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. O, fol. 169, XXX 1 fol. 3-4. Letter from Spalatin to Elector Johann Friedrich (transcribed by Schuchardt 1851, I, 91; Schade 1974, no. 278)

(173) 1533 September around 29
30 gulden Lucas Malhern uff etzliche arbeit die er zur Locha machen soll, welche sein son inhalt seines bekentnus empfangen.
Date: Leipzig, Michaelismarkt
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4371, fol. 30r (transcribed by Schuchardt 1851, I, 90; Schade 1974, 436, no. 279)

(174) 1533
Vors zeughaus
21 gr 9 nd [neue Pfennige] fhur 14½ lb leinöhel, das ziehultze zum gefesse domit zutrencken und zuschmiren, das pfund zu 1½ gr dem Lucas Maler betzalt, weil ane das der zeith keins zubekomen gewesen.
Date: Wittenberg, Amt Wittenberg, Half-yearly account from Walpurgis 1533 to Elisabeth 1533
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 2804, fol. 69v (cf. Schade 1974, 436, no. 280)

1534

(175) 1534 January 16
13 gr Mhauelhans pothen mit rendecken gegen Wittenpergk zu meister Lux [...] 1 gulden 6 gr zu lon einem kerner hat eczlich gemhel undt tefelein nach Freibergk herzog Heinrich bracht
Date: Altenburg, Freitag nach Felicis
Loc.: StACo LA A Nr. 10047, fol. 65r (transcribed by Hambrecht 1987, 88)

(176) 1534 February 21
77 gulden 7 gr Lux Mhalern von Wittenpergk fur die mommerery lauth einer czedel
Date: Altenburg, Samstag nach Estomihi
Loc.: StACo LA A Nr. 10047, fol. 151v (transcribed by Hambrecht 1987, 88)

(177) 1534 August 6
5 gr potenlon Lux Mhalers sohn nach Wittenpergk ausgeben
Date: Torgau, Donnerstag nach Vincula Petri
Loc.: StACo LA A Nr. 10052, fol. 177v (transcribed by Hambrecht 1987, 89)

(178) 1534 August 19
6 gr zu lon Sommer, hat farbe von Wittenpergk anher getragen
Date: Torgau, Mittwoch nach Assumptionis Marie
Loc.: StACo LA A Nr. 10052, fol. 214v (transcribed by Hambrecht 1987, 89)

(179) 1534 September around 29
150 gulden meister Lucas Malhern zu Wittenberg auff etzliche arbeit geben. Inhalt einer zeteln im conflut uff bevehel die sich auff 176 fl 6 gr erstrecken thut, Solch gelt hat sein son inhalt seines bekentnus empfangen, und das ime die sma nicht vollig entricht ist die ursache das an derselben zeteln solle etwas abkurtzt werden. Nachdem meinen gnedigsten hern bedunckt das die arbeit zu hoch angeschlagen.
Date: Leipzig, Michaelismarkt
Loc.: ThHStAW (transcribed by Schuchardt 1851, I, 92; Schade 1974, 436, no. 287)

(180) 1534
84 gulden 16 gr meister Lucas Cranach dem malher zu Wittenberg vor etlich gemelhe inhalt seiner zeteln.
Date: 1534
Loc.: ThHStAW (transcribed by Schuchardt 1851, I, 93; Schade 1974, 436, no. 290)

1535

(181) 1535 January 8
2 gülden 15 gr zcu lon Anders Hecht von Wittenpergk auf 1 pferdt 10 tage eine taffel von Lucas Mhaler anher gefurt; 1 gr 4 d losung auf 2 nacht idem
Date: Weimar, Freitag nach Circumcisionis Domini
Loc.: StACo LA A Nr. 10053, fol. 28r (transcribed by Hambrecht 1987, 89)

(182) 1535 March 22
1 gülden 4 gr potenlon undt tranckgelt Joachim Kalzisch ezliche gemalte tucher von Wittenbergk von Lux Mhaler anher getragen
Date: Weimar, Montag nach Palmarum
Loc.: StACo LA A Nr. 10058, fol. 78v (transcribed by Hambrecht 1987, 89)

(183) 1535 June 27
Meister Lucas Maler hat noch nit angefangen das haus im gartenn gruine zu ferben. Unnd nachdem die gruine farbe

etwas teuer und das dach derselbenn farbe vil nehmen und etwas gros gestehenn wurde, So las ich itzunt gruine glasurte dach zigel unnd pflastersteine zurichtenn, dasselb haus damit zudeckenn unnd pflasterenn. Das wirdet viel bestendiger, mit gar viel geringeren kostenn, kunnenn gemacht werdenn, vorhoff es soll e[uer] churfürstl[iche] g[naden] nit mißgefällenn.

Date: Torgau, Sonntag nach Johannis Baptiste

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 286a Nr. 1 s, fol. 20v, 21r; Extract from report by Hans von Pagk, kursächsischer Amtmann zu Torgau, to Elector Johann Friedrich of Saxony (cf. Schuchardt 1851, I, 94; Schade 1974, 437, no. 294)

(184) 1535 June 28

[...] nu weil e[uer] f[ürstlichen] g[naden] ich nit verhelte das meister Lucas Maler von Wittenberg mit etzlichen gefelßen hir ankommen, das haus im gart[en] grune zu ferben dem dan ganz wlo gefellich das das dach und pflast[er] des selben haußes mit gruine glasurten steinen gefertigt werd[en] soll. Und nach dem e[uer] f[ürstlich] g[naden] yhm befole[n] haben soln das die wende am newe[n] kreisgart[en] auch mit gruin angestrichen werd solt[en], und er doch itz befunden, daß dyßelben wend[e] als die ein gespunt[e] breter, mit weisser und das holtzweg mit grawer farbe, geren angestrichen und zu betzalet sein, hat ihm, dasselb auch gefallen und sich nit undstehen woln nach dem er e[uer] f[ürstlich] g[naden] zimed bericht hab[en], soll das er zun selbenn wend swerlich gruine farbe genug bekommen kunne, dasselb werck zu andere. So habe doch ich nit undlassen woln e[uer] f[ürstlich] g[naden] dasselb anzuzeig[en], dan wo e[uer] f[ürstlich] g[naden] noch darauf beharre wolt[en] das dieselbig[en] wende auch gruin angestrichen werd[en] solt[en], muist es nit erwind[en] dan an d[em] besche[hen]e[n] erliget wenigk verborgen. Und kunt[en] uf die weiss und grawe farbe das gruin wol angestrichen werd[en], ich achte e[uer] f[ürstliche] g[naden] stelt diss[en] standt derselbig[en] wende wie die itz bereit sein nit ubel gefaln, so wolt[en] dan e[uer] f[ürstlich] g[naden] das dach uf den wend[en] gruin angestrichen hab[en], dasta sonst der ist mit rot farbe einzustreicken, hoff[en].

Date: Torgau, Montag nach Johannis Baptiste

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 286a Nr. 1 s, fol. 22r, 22v; Extract from report by Hans von Pagk, kursächsischer Amtmann zu Torgau, to Elector Johann Friedrich of Saxony

(185) 1535 June 30

Der amtmann bericht, das meister Lucas Maler ankommen unnd welcher gestalt er die wende im neuen creuzgange anzustreichen bedacht

Date: Torgau, Mittwoch nach Johannis

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 287; Building of Schloss Torgau (transcribed by Bruck 1903, 253)

(186) 1535 July 1

Weil auch meist[er] Lucas das haus im gart[en] aus mangel der farbe gruine zu farb[en] noch nit angefang[en] und das die gruine glasurte dachzigel und pflaster steine zugericht[et] bestellt, dasselbe haus damit deck[en] und pflastern zulassen, solchs unnd zuvorderst das es mit geringern chosten auch mherern bestandt dar das ferb[en] bescheen mack lassenn wir unns ach gefallen.

Date: Weimar, Donnerstag nach Petri und Pauli

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 286a Nr. 1 s, fol. 25r; Extract from instructions from Elector Johann Friedrich to his Amtmann Hans von Pack in Torgau concerning the building of Schloss Torgau (cf. Schuchardt 1851, I, 94; Schade 1974, 437, no. 294)

(187) 1535 July 2

Johann Friedrich etc. Lieber Radt und getreuer. Als du unns jetzt abermals des baues halben geschrieb[en], solchs haben wir vernomen. Unnd daraus vorstanden, das meist[er] Lucas gene Torgaw, mit etzlich[en] gesellen komen das hauß im gart[en] grun zumalhen, der ime dan, das das dach und pflast[er] des haußes, mit grunen glasirt[en] Steinen gefertigt werd[en] soll hat gefallen lassen. So wirdestu aus unserm schreib[en] so wir dir gestern gethan vormerk[en] das wir uns auch gefallen lassen, das das haus mit berurt[en] zigeln gedeckt und gepflastert werden soll. Was aber belanget die wende am neuen creutz garten, welche auch grune haben gemalhet sollen werden, die aber albereit mit weisser und grawer farbe angestrichen derhalb[en] meist[er] Lucas dyselb[en] nit anders hat malhen wollen, solchs lassenn wir auch gescheen und pleib[en].] Unnd do es unns zu unser ankunfft, wils gott nit wirdet gefallen, wollen wir dar mit wol andern bephelh zuthun wissen.

Des pawgeldes halb[en] haben wir unnserrn landrentmeist[er] Hansen von Taubenheim, welcher sich unlangst wird gene Torgau verfug[en] wurdet, bevelh gethann. Der wirdet desselb[en] damit daran nit Mangel 6 zuvorderen wissen. Das habenn wir dir nit wollen vorhalt[en]. Dat[um] zu Weimar freitack nach petri & Pauli 1535, An dAmtmann zu Torgau

Date: Weimar, Freitag nach Petri und Pauli

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 286a Nr. 1 s, fol. 26r, 26v; Instruction from Elector Johann Friedrich to his Amtmann Hans von Pack in Torgau, concerning the painting work undertaken by Lucas Cranach and referring to the invoice for 70 fl: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 284a, Nr. 1 p., fol. 1v (cf. Schuchardt 1851, I, 94; Schade 1974, 437, no. 294)

(188) 1535 September 5

28 gulden meister Lucas Maler uff Rechnung. Ist selb 45 fl.
Date: Torgau, Sonntag nach Egidii
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 286a Nr. 1 s, fol. 31v; Statement of account for work carried out in the course of the building of Schloss Torgau. According to the invoice, Lucas Cranach is supposed to receive 28 gulden. The money due to him is shown under several items, marked 'vorrat' (stock). It has not as yet been paid. However, Cranach's bill at the time amounted to 45 gulden.

(189) 1535 September 11

Item überschickt etzliche contrafect, so der tischer in holz geschnitten und ferner in silber gegossen [...]
[In the report Hans von Pack writes that a carpenter had carved the portrait of Elector Johann Friedrich in wood and subsequently cast it in silver. The man received 30 taler to do this and was required to reproduce the portrait 11 times. There was also a commission to cast a portrait of the daughter of the King of Poland as well as one of the Margrave of Brandenburg in silver.
A bill from the Bauschreiber in Torgau is enclosed with the report. The carpenter, who was from Halle, accordingly received 30 taler. From this he cast '11 large groschen', in other words portrait medallions. Each one weighed 5 lot, the portrait of the Margrave of Brandenburg 2 lot in silver weight. The craftsman was paid 3 gr for each lot of silver processed.]
Date: Torgau, Samstag nach Nativitas Marie
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 286a Nr. 1 s, fol. 33r; Extract from the report by Hans von Pack, kursächsischer Amtmann zu Torgau, to Elector Johann Friedrich (cf. Bruck 1903, 253)

(190) 1535 October 18

3 gr 4 d potenlon Hans Schadalat mit des tapestrimeisters brief gegen Wittenpergk zu Lux Maler
Date: Torgau, Montag nach Galli
Loc.: StAco LA A Nr. 10062, fol. 66r (transcribed by Hambrecht 1987, 90)

(191) 1535 December 7 and 26

Betreffende die fenster, so auf dem sal, salstuben und frauenzummern mit mosirten schein besetzt sollen werden und das die schein so wir zu Torgau lassen nit reichen wollen. Begern wir du wollest Lucassen Maler derselben ein muster abreissen unnd die schein darnach machen lassen.
Date: Torgau, (?)
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 284a, Nr. 1r, fol. 20r, 25r, 25v (transcribed by Schuchardt 1851, I, 93; Schade 1974, 437, no. 298)

(192) 1535

Die große salstuben wie ichs ansehe sol mit dem gemelde fast in 14 tagenn fertig werden.
Date: Torgau, (?)
Loc.: ThHStAW (transcribed by Schuchardt 1851, I, 95)

(193) 1535

30 gulden Lucas Cranach Malher zu Wittenberg uff schrift Hansen von Ponikaw camerers, unnd gedachts Lucas bekennus. Nemlich 20 gulden vor zwei churfursten anher und 10 gulden vor eine jagt.
Date: Neujahrsrechnung
Loc.: ThHStAW (transcribed by Schuchardt 1851, I, 95)

1535/1536

(194) 1535 August 13–1536 January 3

8 fl 12 gr uf seine person maler gangen. Der wirthen nach Laurenti im 35 [13 August 1535] alß meister Lucas hat angefangen zumalen.
Kost und lohn und schlaftrank, nemlich 1 fl Hans Abel, ½ fl Frantz Zubereiter, ½ fl Lucas Mercker, ½ fl Hans Steter, ½ fl Jobst Steter, ½ fl Paulus Steter (lhon), 4½ fl die kost vor jde person, 10½ gr seine person, 12 gr schlaftrank von der person 16 d.
197 fl 9 gr uf 11 person 16 wochen von Assumptionis Marie biß uf Nicolai [15 August – 6 December 1535] ist im wochentlich 12 fl 15 gr zu kost und lohn gangen, nemlichen lat. 206 fl
5½ fl kost, 6½ fl lohn, 15 gr schlaftrank [...] woch. Dorunder zwen iglichen ein wochen 1½ fl zu lohn. Einem 1 fl.
Die anderen zu 8 fl, dorunder einer so 1½ fl die wochen zu lohn gehabt, 3 wochen nicht gearbeit, farb, kost, lhon, schlaftrank 6 fl 5 gr 4 d.
40 gulden 6 gr uff seine person vier wochen von Nicolai bis ufs nau jhar des 36. [6 December – 3 January 1536] kost, lhon und schlaftrunck gangen.
Nemlichen 4½ fl kost, 5 fl lhon für ein woche 12 gr schlaftrank sechß person haben lhon entpf[angen], dorunder sein zwen son iglichen 1½ fl, die andern iglichen ½ fl.
Meister Lucas sampt zwen lehr knaben haben nicht lohn empfangen.
Lat: 40 fl 6 gr.
Date: Torgau, 1536
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 141v, 142r (cf. Schuchardt 1871; 266–267; Schade 1974, 437, no. 296)

(195) 1535/1536 October 18–January 3
21 fl Ambrosio Silberbart uf 21 wuchen, ein zubereiter hat sich selbst bekostiget, igliche wochen 1 fl.
1 fl 11 gr 7 d vor licht geben, ehe die licht arbeit angangen vor

sant Lucas tag [18 October 1535].

15 fl 12 gr 3 d vor liecht geben von sant Lucas biß ufs nau jhar [3 January 1536], 11 wochen.

10 fl 7 gr für 29 fuder holtz zuprennen.

Farbe.

57 fl vor 38 lb plaw, ides lb vor 1½ fl zu der salstuben.

21½ fl vor 43 lb gering blaw, das sie zum ersten haben angestrichen.

Lat. 126 fl 20 gr 4 d.

66 fl vor 44 lb blaw, das ganz hauß außwendig und inwendig und die tucher anzustreichen.

10 fl 6 gr für 12 lb plaw zu der hofstüben.

20 fl für 30 lb lack. Aber leipfarb zu der großen stüben und allenthalben.

14 fl für 14 lb schiefer grün.

4½ fl für 18 lb bergk grün.

3 fl für 30 lb pleygel.

9 fl für 9 lb indisch weit blumen.

2 fl für ½ centner ocker gel.

3 fl für 7 lb zcyober.

1 fl gulden für 1 lb guten firmus.

6 fl gulden für 24 lb gemein firmus.

3 fl 6 gr für 60 lb leinöl.

2 fl für 40 lb mennig.

4 fl für 28 lb bleyweiß.

Lat. 148 fl 1 gr 6 d

Dat. Torgau, 1536

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 143r (cf. Schuchardt 1871, 267–268.)

1536

(196) 1536 January 8

Außgabe maler arbeit

1 gulden 5 gr meister Lucas Maler von dem grossn messen bild außzupoliren

1gr davon zutragen

Date: 1535, Baw rechnung uber das schlos Torgaw, gehalten

durch Jorgen Langen, bawschreyber in den funff und

dreissigsten jhar, Esto Michi, angefangen [7 February 1535]

unnd in dem 36 jhar desselbigen sontags beschlossen [26

February], Sonntag nach Circu[m]cionis do[mini] [8 January

1536] Eustachius Maler recieves two payments.

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 205f (cf. Schade 1974, 437, no. 299)

(197) 1536 May 14

30 fl meister Lucas Cranach von den den dreien speren am haußmans thurm zumalen und vorgulden.

49 fl 3 gr idem von 86 kneuf auf die gibel zumalen und vorgulden, von iglichen 12 gr

4 fl idem von dem grossen knauf ufs haußmans thurm

zuvorgulden, solch gold ist alles sein gewesen.

204 fl 51 buch feingolt von Leipczk geholt bey Wolfin Brennsdorff und Caspar Goltschlahen. Jedes buch vor 4 fl, solch goldt hat meister Lucas zu den stuben und rosen auch am steinwergk so vorguldet vorpraucht, laut seiner ubergeben zedeln.

Summa lateris 287 fl 3 gr.

Date: Torgau, Cantate

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 141r. (cf. Schuchardt, 1871, 265–266; Scheidig 1953, 170, no. 48; Schade 1974, 437, no. 300)

(198) 1536 October 1

20 gr meister Lucas für 2 lb plaw dem tüncher zu den bencken

in der stuben des gefirten thurm darin die genealogie stehet.

3 gr idem für 1 lb pleigel den tunchern obin im gefirten thurm.

2 gr 8 d für 2 lb mennige.

10½ gr idem für ½ lb schon plaw dem tischer zu den bencken.

Summa lat. 7 fl 2 gr 9 d.

Date: Torgau, Sonntag nach Michaelis

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 146r (cf. Schuchardt 1871, 272)

(199) 1536 October 22

20 gulden meister Lucas Cranach von wegen meister Caspar von der kamer im gefirten thurm zumalen.

Date: Torgau, Sonntag nach Galli

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 146v (cf. Schuchardt 1871, 272)

(200) 1536 October 29

15 gr 9 d Ambrosius Silberbart ein wochen zu lhon, um knauf zuvergulden uf den rundten thurm.

5 gr idem 2 tag an den stulen zumalen, befel meister Cuntz.

2 fl 2 gr für ein halb buch gold, das sein gewesen doran ich

ihm wider von gold eines buchs so mir meister Lucas gesant

und ich ihm noch schuldig 40 gr werth vorgnugen sal.

Date: Torgau, Sonntag nach Simonis et Jude

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 146v (cf. Schuchardt 1871, 272)

(201) 1536 November 26

2 gr idem von dem knauf zuvergulden auf dem clein wendelstein.

Summa lateris 23 fl 3 gr 9 d

Date: Torgau, Sonntag nach Catharine

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 146v (cf. Schuchardt 1871, 272)

(202) 1536 December 16

30 gr Ambrosius Silberbart für das ubrig golt zu den vier

knauffen uff den rundten thurm, darzu er gehapt ein buch und 4 plat, ist meister Lucas gewest fur 54 gr, das ander hat er darzu addirt.

Date: Torgau, Sonntag nach Lucie

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 147r (cf. Schuchardt 1871, 272–273)

(203) 1536

200 gulden meister Lucas Cranach von Wittenberg lauts seiner hantschrift von wege Jorge Langenn [Bauschreiber] uff den baw Wittenberg entricht.

Date: Wittenberg, 1536

Loc.: ThHStAW (transcribed by Schuchardt 1851, I, 95; Schade 1974, 437, no. 304)

(204) 1536

5 fl für 40 lb kesselpraun.

2 fl für 2½ centner creiden.

17½ fl für 2½ centner leym.

1 fl 9 gr für 1 butten vol carlof rham.

15½ fl vor 700 rosen und flammen zu drücken zu Wittenbergk von Oßwalt Schnitzer uf papir. 3 fl von 70 rosen zuvorgulden gen Grym [Grimma?] geschickt worden alda zuvorgulden.

12 gr von den rosen gen Grim und herwider zutragen.

16 gr für nagel domit man die rosen hat aufgeschlagen.

20 gr für 3 scheffel mel, die tücher domit zustercken.

1 fl 14 gr von 150 tücher zu nehen.

16 gr für die holtze tafel doruf das evangelium von der ehebrecherin gemalt zu Wittenbergk gemacht.

Lat. 49 fl 3 gr.

Date: Torgau, 1536

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 143v (cf. Schuchardt 1871, 268–269)

(205) 1536

Maler.

2 fl 18 gr von drey fuhrn gen Wittenburgk die ihm zeug geholet.

1 fl 9 gr fur 5 bothen lhon gen Leipczk die im golt und farb geholet.

1 fl 9 gr für 6 bothen lhon ghen Wittenburg die im zeug holeten.

18 gr furlhon von Grim haben meister Caspar und sein schwager anher gefurt.

16 gr vor die tafel und das futter zumachen, doruf der Lazarus gemalt.

6 fl 15 gr 9 d meister Lucas selb 9 zu kost 1½ wochen vom nauen ihar biß uf den dornstag nach trium regum [1–13 January 1536] von ider person ein wochen.

10½ gr nemlich meister Lucas zwen son, zwen lehrknaben, Franz, Pael, Jobst und Mercker.

7½ fl uf sechß person die 1½ wochen zu lohn, nemlich seinen

zwen son jedem ein wochen 1½ fl, die andern viern jden

1 woche 10½ gr

Lat. 21 fl 12 gr 3 d.

Date: Torgau, 1536

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 144r (cf. Schuchardt 1871, 269–270)

(206) 1536

18 gr uf die 9 person schlafranck, von der person 16 d.

1½ gulden ist auf dem Silberbart zu cost und lhon gangen die 1½ wochen.

1 fl 8 gr für 4 fuder holtz.

1 fl 5 gr 11 d fur 19 lb licht.

37½ fl auf 6 perßon 5½ wochen zu lhon gangen lauts seiner zedeln vom dornstag nach trium regium biß uf den dornstag nach Esto michi [13 February – 2 March 1536].

4½ fl Steffan Maler 4w wochen, die wochen 1 fl.

5 fl 5 gr 3 d meister Caspar von Grim 3½ wochen, die wochen 1½ fl.

2 fl 5 gr 3 d dem Alexander 4½ wochen, die wochen ½ fl.

6 fl Frantz Malern für betgeldt 31 wochen.

10 fl vor die zwo tafeln in der salstuben Marie bild und Lucretia hat er zu Wittenbergk gemacht. Lat. 70 fl 10 gr 11 d.

Date: Torgau, 1536

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 144v (cf. Schuchardt 1871, 270)

(207) 1536

Farbe.

36 fl für 9 buch feingoldt, jedes vor 4 gulden.

4 fl 4 gr 3 d für 3 stein leym, den centner vor 7 fl

1 fl 13 gr für leymleder vom weißgerber erkaufft.

16 gr fur mennig.

22½ fl fur 15 lb das best blaw, 1 lb fur 1½ fl.

12 fl fur 12 lb blaw, 1 lb vor 1 fl.

12½ fl für 25 lb blaw, das man zum ersten hat angestrichen.

1½ fl für 1½ lb indich.

2½ fl für 10 lb bergk grün.

4 fl fur 4 lb schifergrün.

2 fl fur 4½ lb zinober.

6 fl fur 8 lb lack.

1 fl fur 10 lb pleygel.

2 fl fur 14 lb bleyweiß.

1½ fl fur 10½ lb kesselpraun.

Lat 110 fl 1 gr 9 d

Date: Torgau, 1536

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 145r (cf. Schuchardt 1871, 270–271)

(208) 1536

18 gr fur 6 stein kreyden.

8 gr fur 12 lb ockerigel.
 12 gr fur 3 lb aderwergek.
 15 gr fur die son in hertzog Heinrichs kamer.
 5 gr dem boten der sie von Wittenbergk her getragen.
 16 gr fur den rundten bogen der außwendig uber der salstuben stehn.
 19 gr davon her zufuren.
 2 fl 12 gr fur 36 eln ulmer leynwath, ein eln fur 1½ gr, doruff Cristus und der babst gemalet in die salstuben.
 14 gr dem tischer von denselben leisten darauf die tuch gezogen sind.
 1 fl 18 gr für 26 eln leinwath, doruff die 26 wappen in der geweyhe stuben gemalet.
 26 gr dem tischer vor denselben leisten zumachen.
 15 gr fur clein und grosse negel.
 Lat. 11 fl 10 gr
 Date: Torgau, 1536
 Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 145v (cf. Schuchardt 1871, 271)

(209) 1536
 1 fl 7 gr fur dopff und furb tigel.
 3½ fl 1 d fur licht 6½ wochen, ein woch 8 lb licht.
 12 gr meister Caspar von Grym zu zerung und furlhon.
 Date: Torgau, 1536
 Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 146r (cf. Schuchardt 1871, 271)

1536/1537

(210) 1536/1537
 Summarum maler arbeyt macht 1107 fl 14 gr 3 d
 Date: Torgau, 1536
 Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 147v (cf. Schuchardt 1871, 273)

1537

(211) 1537 January 13
 3 fl 7 gr Ambrosio Silberbart für 250 blat golt zupinß zu den kneuffen fur 128 gr.
 1 fl 6 gr idem von 9 knauff zumahlen und vorgulden von idem 3 gr bey seiner kost und farb.
 1 gr idem von den zweien wappen an den kamer wagen auß zustreichen.
 Suma lateris 6 fl 2 gr.
 Date: Torgau, Sonntag nach Ehrhardi
 Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288a, Nr. 1u, fol. 147r (cf. Schuchardt 1871, 273)

(212) 1537 March 11
 Außgab maler arbeyt 1537.
 6 gr Eustachius Maler von der thur im offen gang zu mahlen.

Date: Torgau, Letare.
 Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288b Nr. 1x, fol. 136r (cf. Schuchardt 1851, I, 273)

(213) 1537 April 22
 4 fl Hansen Cranach for ein buch feingoldt, ist komen zu den kneuffen des rondten thurm.
 4 gr Ambrosio Silberbart von dem trachenkopf zuvorgulden ober dem offen gang.
 2 gr idem von dem tuch im rundten thurm wieder geholffen anzuschlaen.
 1 fl 15 gr 9 d Hansen Cranach für 1 lb 3 virl blaw, den tischern zu den bencken.
 Date: Torgau, Jubilate.
 Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288b Nr. 1x, 136r (cf. Schuchardt 1851, I, 273-374)

(214) 1537 September 16
 10 gr Ambrosio Silberbart von dem trachenkopff zuvorgulden und die rynn zu malen von seinem gold und farb. Summa lat. 6 fl 16 gr 9 d.
 Date: Torgau, Sonntag nach Crucis.
 Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288b No 1x, fol. 136r (cf. Schuchardt 1851, I, 274)

(215) 1537 October 30
 18 fl 1 gr meister Lucas dem maler zu Wittenbergk fur eine tafel der historienn von sant Johannes dem Touffer und sunste etzlicher arbeit, inhalts seiner hantschrift, zahlt zu Torgau dinstags nach Simonis und Jude.
 Date: Torgau, Dienstag nach Simon und Jude (Capital der churf. Einnahme [...] Sonntags Trinitatis 1537 - Trinitatis 1538)
 Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4428, fol. 15r (cf. Schuchardt 1851, I, 121; Schade 1974, 437, no. 307)

(216) 1537 October
 2 gr dem Silberbart vor den rynn so erlengt worden wider zuferben mit seiner farb.
 Date: Sonntag nach Crispini
 Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288b Nr. 1x, fol. 136v (cf. Schuchardt 1851, I, 274)

(217) 1537 November 11
 5 gr idem von dreien stucken rynn grun anzustreichen so erhengt worden.
 Lat: 7 gr
 Summa summarum farb 7 fl 2 gr 9 d.
 Date: Torgau, Sonntag Martini.
 Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 288b Nr. 1x, fol. 136v (cf. Schuchardt 1851, I, 274)

1536 (Invoice of 1538)

(218) 1536 (Invoice of 1538)

Ausgab maler arbeytt. 1538.

Misericordia domini [5 May 1538?]

25 fl Frantzen zubereiter und Hanßen Rentz maler haben von Ostern an des 36 ten jhar [16 April 1536] biß uf Burckardi [14 October 1536], macht 25 wochen, aufm saal angefangen und am Wendelstein sonsten hin und wider gearbeit, iglichen ein wochen $\frac{1}{2}$ fl.

31 $\frac{1}{2}$ fl Hansen Kranach, meister Lucas sohn, hat 21wochen gearbeit, die wochen 1 $\frac{1}{2}$ fl.

8 fl 8 gr Alexander, seinem knaben, 25 wochen ide wochen 8 gr. 10 fl Bastian Maler, der hat gearbeit 4 wochen mit fleiß biß uff Michaelis [1–29 September].

3 fl Steffan Maler von Wittenberg 3 wochen gearbeitt.

Summa lat. 77 fl 17gr 6 d

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 12, fol. 151r; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 274–275)

(219) 1536 (Invoice of 1538)

3 fl meister Oßwalt hat auch 3 wochen gearbeit.

1 $\frac{1}{2}$ fl dem Silberbart, auch 3 wochen.

4 $\frac{1}{2}$ fl meister Lucas sohn, Lucas Kranach 3 wochen gearbeit.

4 fl Dictus hat gearbeit 8 wochen.

Item was vor zeugk darauff gangen von Ostern [16 April 1536] biß uff Burckhardi [14 October 1536],

auch was meister Bastian zu der kamer vorthan hat, ist alles meister Lucaßen gewesen.

Volget stuckweyß.

12 fl 13 gr fur ein zentner 4 stein leym, den zentner fur 7 fl.

8 fl fur 8 lb schifergrün.

14 fl fur 35 lb schon bergkgrun, 2 $\frac{1}{2}$ lb fur 1 fl.

1 fl 8 gr fur 4 lb grunsaft.

3 $\frac{1}{2}$ fl fur 24 $\frac{1}{2}$ lb bleyweiß.

2 fl fur 4 $\frac{1}{2}$ lb zynober.

Summa lat. facit 54 fl 9 gr 6 d

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 12, fol. 151v; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 275)

(220) 1536 (Invoice of 1538)

1 $\frac{1}{2}$ fl fur ockergel.

5 fl für 5 lb waiplaw.

2 $\frac{1}{2}$ fl fur 21 $\frac{1}{2}$ lb bleygel.

3 fl fur 12 lb kesselpraun.

14 fl 7 $\frac{1}{2}$ gr fur 19 lb lack, 1 lb fur 3 ort.

78 fl fur 52 lb schon plaw, 1 lb für 1 $\frac{1}{2}$ fl.

38 fl fur 76 lb plaw, das man zum ersten anstreicht.

1 fl 9 gr fur zwen centner kreiden.

3 fl 10 gr fur 55 lb leynoel, 1 lb für 16 d.

3 $\frac{1}{2}$ fl fur 18 lb firnus.

2 $\frac{1}{2}$ fl fur 53 lb minnige.

4 gr fur polermennig zum gold.

13 gr fur 26 kan kyn ruß.

1 fl 2 gr fur farb tigel und topf.

1 fl 3 $\frac{1}{2}$ gr fur borsten und fuchsschwentz, pensel darauß zumachen.

Lat. farb 156 fl 7 gr.

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 289 z, fol. 152r; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 275–276)

(221) 1536 (Invoice of 1538)

Ausgab fur goldt im saal und Wendelstein, auch knopf und wappen am stock.

124 fl fur 31 buch fein goldt, jhe eins für 4 fl.

Was meister Lucas zu Wittenbergk gemacht hat, folget:

24 fl fur die zwey tucher, do Christus himmelfart und des Babsts hellefart in der salstuben uf gemalet ist.

4 fl 15 gr 9 d fur ein stuck Ulmer goltzsch, darauf dieselben tucher gemalet.

5 fl fur hertzog Philips von Braunschweigk kuntrafei ufm saal.

5 fl fur des bischoffs von Cöln contrafei.

16 fl fur die zwen keyser Otto und Sigmunden uffn saal.

2 $\frac{1}{2}$ fl. fur ein stuck Galler leynwat, darauf sie gemalet sein.

Summa lat. facit 181 fl 5 gr 3 d [es könnten auch 4 d sein, da der Schreiber 4 Punkte setzt]

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289 z, fol. 152v; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 276)

(222) 1536 (Invoice of 1538)

Maler arbeit,

Stam stuben.

80 fl fur den gantzen stammen, sind 11 tucher gewesen in der stammstube.

13 fl 15 gr 9 d fur drei stuck Ulmer goltzsch, darauf der stam gemalet ist.

4 fl 11 gr fur 19 sonnen, waren gar zugericht zum vorgulden in die stamstuben.

1 fl 9 gr fur die anderen 20 große rosen, auch in der stamstuben.

Volget, was uf die furhn gangen im 36 sten jar.

12 gr furlon, do meister Lucas und seine gesellen gen Torgau gefaren am Oster montag [10 April 1536], da sie ufm saal angefangen zuarbeiten. Alda man im die auflösung gegeben

und darnach nicht mehr. Summa lat. facit 100 fl 5 gr 9 d.

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 153r; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 277)

(223) 1536 (Invoice of 1538)

18 gr furlon meister Lucas anher gefurt, alda m. gn. h. im angegeben, was er vor Pffingsten machen solt [4 June 1536], 3 tag bald darnach.

2 gr 8 d losung, zwo nacht uf ein pferd 8 d.

12 gr furlon, die baide kaiser Otto und Sigmunden anher gen Torgaw von Wittenburgk zufuren.

16 d losung uf 2 pferd.

12 gr furlon meister Lucas gesellen, nachdem der sal fertig, wider heim zufuren, abwesens unsers gn. h.

16 d losung 1 nacht.

12 gr furlon hat meister Bastian, der die kamer m. g. jungen freulin zu Pommern etc. gemalet mit einem knaben anher zufuren.

16 d losung 1 nacht.

18 gr furlon 3 tag, die woche nach Margarete [13 July].

2 gr 8 d losung.

Summa lateris facit 3 fl 18 gr 4 d.

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1 z, fol. 153v (cf. Schuchardt 1871, 277-278)

(224) 1536 (Invoice of 1538)

12 gr furlon meister Lucas son Lucas hat den stammen anher gebracht.

16 d losung.

12 gr furlon, hat meister Lucas sampt seinen gesellen wider heimgefurt, Burckardi [14 October 1536].

18 gr drey bothen lhon gen Leiptzig hat gold geholet.

7fl 13 gr schlafgeldt uf ein nacht ein person, 2 d von Ostern biß uf Burckardi inclusis meister Bastian und sein knab.

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 154r; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 278)

1537 (Invoice of 1538)

(225) 1537 (Invoice of 1538)

Volget, was meister Lucas gemalet hat in dem 37 sten jhar.

35 fl 15 gr fur das tuch an der decke der spigel stuben, an 30 guldengroschen zu 25 gr.

5 fl fur die leynwat zu der deck.

2 fl fur 8 rham, darauf dasselb tuch gemalet.

Summa lat. facit 52 fl 8 gr 4 d.

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 154r; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 278)

(226) 1537 (Invoice of 1538)

5 fl 17½ gr fur das goldt oben herumb in der spigelstuben.

4 fl ist uf Pael Ryß, Hans Rentz und Bartel Maler, gesellen gangen drei wochen lang, nemlich zweien gesellen, idem ½ fl 1 wochen und dem knaben 7 gr.

1 fl 3 gr meister Lucas ist 4 tag alhier gewesen mit zweien pferden, furlon als er dieselbigen tucher gebracht.

5 fl 4 d losung 3 nacht.

Rondte stuben gegen der elb.

36 fl fur das brustgetefel, 18 stuck ihe ein stuck fur 2 fl, daran sind die fursten contrafet.

12 fl fur 12 tafeln, auch zum brusttefel.

3 fl fur die aussen und inwendig.

54 fl fur 36 fursten mit irer oberschrift von iglichem 1½ fl.

Summa lateris 116 fl 4 gr [auch 5 möglich, weil über 4 Bögen 5 Punkte] 10 d

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol 289, Nr. 1z, fol. 154v; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 278-279)

(227) 1537 (Invoice of 1538)

9½ gr der furhman vorzehrt, der das brustgetefel anher gefurt.

10 fl 15gr 9 d fur 2 stuck Ulmer goltzsch, darauf die fursten gemalet.

20 fl für dieselbigen deck zu malen, waren 24 rhamen.

4 fl 12 gr fur dieselben rhamen, dem tischer hat das holtz zu Wittenburgk darzu geben.

9 fl 13 gr [aber 4 i -Punkte] 1 d 1 h fur zwey stuck leynwat zu der decken.

6 fl fur 4 buch zwifßgoldt zu dem brusttefel in die kalaunen.

1fl 15 gr fur die grossen rosen in dieselben stuben an der deck.

2 fl 18 gr fur die klein rosen zu Wittenburgk gar auß gemacht zuvorgulden.

26 fl sind uf 5 gesellen gangen, 9 wochen, Pael, Hans, Jobst, Marx und Silberbart, einem jeden ½ fl und von dem knaben

7 gr, hat als vil gethan als ein gesel.

Summa lateris facit 81 fl 8 gr 10 d 1 h

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 155r; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 279)

(228) 1537 (Invoice of 1538)

2 fl 16½ gr schlafgeldt, die 9 wochen von jeder person 2 d.

6 fl meister Lucas sohn Lucas vier wochen zu lhon, jede woche 1½ fl.

Item, was fur zeugk darauf gangen:

4fl 8 gr fur 3 stein leym, 1 stein für 1 fl 9 gr .

15 fl 15 gr 9 d fur 10½ lb schon blaw, 1 lb für 1½ fl.

4½ fl fur 9 lb blaw zum ersten mit anzustreichen.

1 fl 7 gr fur 4 lb grünsan.
 2 fl fur 2 lb waitplaw.
 1 fl fur 2 lb 1 v[ir]tel zinober.
 12 gr fur 12 lb mennich.
 12½ gr fur 6 lb pleigel.
 1½ fl fur 6 lb kesselbraun.
 18 gr fur 6 lb bleyweyß.
 Summa lateris facit 41 fl 5 gr 9 d

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 155v; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 279–280)

(229) 1537 (Invoice of 1538)

½ gulden für 1½ lb grünsaft.
 3 fl fur 9 lb bergkgrün.
 5 fl fur 5 lb schifergrün.
 1½ fl fur 2 lb lack.
 1 fl fur 4 lb firmus.
 8 gr fur ocker gel.

1½ fl fur fegschwentz, borsten zu pinseln und farbtigel topfen.
 1 fl 3 gr fur lohn 4 tag, do meister Lucas den gesellen nach Torgaw hat fuhren lassen, 8 tag nach Ostern [9 April 1537].
 4 gr losung 3 nacht.

Freitag nach Exaltationis Crucis [20 September 1537]
 hat meister Lucas die zwen wepner ufm schif gen Torgau fahren lassen.

26 gr denen gesellen zerunge mitgeben und sind zwen alhie bliben.

1 fl meister Oswalt geben, hat sie sollen setzen, so sind sie nicht fertig gewesen.

Summa lateris facit 16 fl 9 ½ gr.

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 156r; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 280)

(230) 1537 (Invoice of 1538)

1 fl 9 gr furlon 5 tag, hat meister Lucas gen Torgaw und Lochau gefurt.

5 gr 4 d losung.

1 fl 9 gr furlon, 5 tag, do meister Lucas und meister Oßwalt sampt seinem sohn Lucas mit einem gesellen gen Torgaw gefurt.

5 gr 4 d losung.

1 fl meister Oswalt zu lhon, hat er noch mehr an kureser gearbeit.

11 fl ist auf die zwen zu lhon 11 wochen gangen.

3½ fl Silberbart zu lhon.

7½ fl meinem sohn Lucas 5 wochen von Ursule biß sonnabend nach Catharine [21 October – 25 November 1537].

2½ fl Jacob Abel 5 wochen.

2 fl 9 gr dem Silberbart geben von den rosen klein und groß bey seiner kost zuvorgulden in hertzog Georgen stuben.

Summa lateris 31 fl 6 gr 2 d

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 156v; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 281)

(231) 1537 (Invoice of 1538)

Zu Wittembergk gemacht in hertzog Georgen stuben.

20 fl fur die selben tucher an die decke, sind 20 rahm gewesen.
 9 fl 10 gr fur zwen baln leynwat Luckisch, 1 stuck für 4½ fl 5gr in hertzog Georg stuben.

Item was den summer uf Katharine [until 25 November 1537] vorguldet, knopf, rosen klein und groß, in das clein stublein und allenthalben.

87 fl 7 gr fur 21 buch feingoldt und 250 blat.

Zeug verbraucht von Crucis [14 September 1537] biß her.

Nemlichen:

6 fl 13 gr fur 4½ lb schon plaw.

4 fl fur 8 lb blaw, das man erstlich anstreicht.

2 fl 6 gr fur 1 stein 13 lb leym.

Lat. 129 fl 15 gr.

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289 Nr. 1z, fol. 157r; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 281–282)

(232) 1537 (Invoice of 1538)

2 fl fur 2 lb schifergrün.

1 fl fur 3 lb bergkgrün.

½ fl für 1 lb zinober.

9 gr fur 14 loth indich.

7 gr fur 7 lb mennich.

11 gr 2½ d fur 4½ lb bleigel.

12 gr fur 4 lb bleyweyß.

3 gr fl oger gel.

½ fl fur 2 kesselpraun.

7 gr fur 1 lb saftgrün.

2 fl 6½ d fur 3 lb lack und ¼.

8 gr fur ein buch gros regal papir.

1 fl 3 gr fur lohn 4 tag hat meister Lucas herauf gefurt, do er die kureser setzt und hat seine gesellen mit heym gefurt.

4 gr losung 2 pferd.

1 fl 17½ gr schlafgeld, zwen 11 wochen und zwen 5 wochen.

Summa Lat. facit 11 fl 19 gr 3 d.

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 157v; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 282)

(233) 1537 (Invoice of 1538)

49 fl 10 gr 6 d meister Oswalden zu schneiden von den zweien kuessern, 33 wochen ihe ein wochen 1fl und $\frac{1}{2}$ fl. die woch in die kost.

1fl 12 gr fur das vespertrincken, 1tag für 2 d.

11 fl 11 $\frac{1}{2}$ gr fur das blech und macherlon vom latern maker.

15 fl davon außzufassen.

9 fl 7 gr fur 700 plat feingoldt zum panir und schilt zuvorgulden.

1 fl 2 $\frac{1}{2}$ gr dem cleinschmidt.

9 fl fur die zwen spieß dem tischer.

18 gr dem zcymmerman, der sie auß dem grobsten gehawen.

1 fl 16 $\frac{1}{2}$ gr fur die zwo kethen zu den zweien kurassern am wendelstein dem goltschmidt.

1 fl 7 gr fur hundert plat feingolt zu vorgulden.

Summa Lat. 92 fl 10 gr

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 158r; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 282–183)

(234) 1535/1538 (Invoice of 1538)

Folgendt stuck nicht zum baw gehörig und doch mit zugegeben zu berechnen, gemacht in dem 35. 36. 37. 38. jhar. 10 fl fur die großen drey churfürsten, hat man hinweg geschickt auf einem großen tuch manß groß.

20 fl fur zehen tafelein von oelfarbe hat m. gn. h. der churfürst dem hertzog von Pomern geschickt, nemlich hertzog Friderich, hertzog Hans churfürst seligs gedechnus, die von Anhalt die zwey frewlein, herzog Hans Ernst und die zwen jungen hern m. g. h. sohn.

6 fl fur m.gn. h. den churfürsten contrafet im braunen cleidt, ist er Wilhelm von Pappenheim worden.

6 fl fur die drey churfürsten, m. gn. h. bischof von Coln und marggraf Joachim, ist in die Lochesche Haide kommen.

Summa facit 42 fl.

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 158v; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 283)

(235) 1535/1538 (Invoice of 1538)

10 fl fur zwen schliten von oelfarben gemacht und sechs geissel stecken.

36 fl fur 18 rote decken, ide zu 2 fl.

4 fl fur 8 sacktucher.

20 fl fur 4 seiden decke.

20 fl fur die mummerei, der babst mit den cardineln und bischoffen mit aller zubehorung.

1 $\frac{1}{2}$ fl fur des landtgrafen wappen zum turnir.

1 fl 3 gr fur des landtgrafen edelleuten wappen auch in

turnir, hat m. g. h. befohlen zumachen. Nemlich: Hennings von Bortfeldt, Burckhart Raw, Cunrad Dite und Ludolf Rauscheplat.

1 fl fur hertzogs Moritz wappen in turnir.

Summa lat. facit 93 fl 13gr 6 d

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 159r; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 283–284)

(236) 1535/1538 (Invoice of 1538)

10 fl fur marggraff Jorgen und sein gemahel contrafet uf tuch auff den saal zu Torgaw.

10 fl fur hertzog Ernsten zu Braunschweigk und hertzog Moritz zu Sachsen.

9 fl fur die drey grossen wappen gen Zerbst und Braunschweig, das drit ist noch im vorrat.

3 fl fur 800 wappen zudrucken, die man an die herberg schlegt. 6 fl 5 gr davon zu malen, ihe eins vor 2 d.

28 fl 12 gr fur die zwo tafeln, die m. g. h. dem Kunig zu Dennemargk geschanckt zu Braunschwigk, an 24 thaler.

8 fl fur 2 tucher, darauf das naw schloß zu Torgaw gemalet ist mit dem hirschgeweyhe.

16 fl 14 gr fur 28 vorgulte knopf an zwen wagen.

Summa lat. facit 91 fl 10gr.

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 159v; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 284)

(237) 1535/1538 (Invoice of 1538)

3 fl 3 gr furlon zu Weynachten, da marggraf Georg hie war 11 tag mit zweien pferden.

13 gr 4 d losung 10 nacht.

18 gr furlon mit zweien pferden 3 tag nach Weinachten, hat meister Lucas 3 gesellen die leuchter ufn sal zumachen anher geschickt wart wider abgeschafft[fhaht], hat er das halb wochen lohn gegeben.

1 fl 6 gr 8 d schlafgeld, aber wochen lon.

2 gr 8 d losung.

1fl 15 gr furlon mit 2 pferden 6 tag, montag nach pauli bekerung uf her Hans von Myngkwitz hochzeit und uf den sambstag wider weg gefaren.

6 gr 8d losung.

4 gr 8 d schlafgeldt uf 6 person.

Summa lat. macht 8 fl 7 [8?]gr

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 160r; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 284–285)

(238) 1535/1538 (Invoice of 1538)

Sontag nach Mathei.

15 gr Brosio Silberbart hat dieß vorgangen wochen an der deck im frauen zimmer gearbeit.

2½ gr idem 1 tag den sambstag vor dieser vorgangen wochen angefangen.

Sontag Michaelis.

15 gr Brosio Silberbart hat die vergangen wochen an der decken gearbeit, baiderseits des frauenzimmers.

6 gr fur ½ virtel blaw.

Sontag nach Francisci.

15 gr idem hat die vorgangen wochen an der deck so wandelbar worden, gearbeit und an den capteln des throns

Sontag nach Dionisy.

15 gr Brosio Silberbart hat die vorgangen wochen an der decke gearbeit.

Summa lat. facit 3 fl 5½ gr

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 160v; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 285)

(239) 1535/1538 (Invoice of 1538)

Sontag nach Galli

8 gr Brosio Silberbart hat 3 tag an der columna des throns gearbeit.

4 gr fur die goltfarb.

4 gr fur blaw.

28 gr fur gold.

1½ gr fur 1 lb leynoel.

Sontags nach All heiligen

6 gr Brosio Silberbart von dem rorkasten mit blaw anzustreichen sampt dem oel für arbeit und farb.

2 fl 3 gr idem von 15 rhamen anzustreichen ufm sal und rauenszimmer, daruf die fursten sind gekontrafet, blaw, schwarz und mit rößlein an der seiten von iglichen 3 gr, befel küchenmeisters und sunder m. gn. h. durch Wenzel Stubenheisser.

Summa Lat. 4 fl 12 gr

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289, Nr. 1z, fol. 161r; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 286)

(240) 1535/1538 (Invoice of 1538)

Sontag nach Martini

3 gr Brosio Silberbart für blaw farb zum captel under dem offen gang an des haußmans thurm.

Summa lat. 3 gr

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289

Nr. 1z, fol. 161v; Invoice in connection with the building of Schloss Torgau (cf. Schuchardt 1871, 286)

(241) 1535/1538 (Invoice of 1538)

Summa Summarium facit 1390 fl 13 gr 1 h.

Date: 1538

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 289 Nr. 1z, fol. 162r; Invoice in connection with the building of Schloss Torgau

1538

(242) 1538 February 2

12½ gr an ½ guldengroschen meister Lux dem maler eine form zum pfefferkuchen meine gnedigen jungen herlein bestalt

13 gr 2 d fur 2 pucher darin die historien Johann Hussen idem

Date: Torgau, Sonnabend Purificationis Marie

Loc.: StACo LA A Nr. 10070, fol. 153r (transcribed by Hambrecht 1987, 90)

(243) 1538 September 28

13 gr tischerarbeit von 4 ramen zu den conterfecktbilderer einzufassen gemacht Wenzel Stubenheizer empfangen

5 gr zu lon einem pothen mit des marschalgks briven nach Wittenpergk zu Lux Maler gelauffen

Date: Torgau, Sonnabend nach Matthei

Loc.: StACo LA A Nr. 10070, fol. 226r und 227r (transcribed by Hambrecht 1987, 90)

1539

(244) 1539 May 3

11 gr 7 d nemlich von 1 lauten wyder zu machen, so die jungen herren meister Luxen verbochen

Date: Weimar, Sonnabend nach Jubilate

Loc.: StACo LA A Nr. 10076, fol. 173r (transcribed by Hambrecht 1987, 90)

(245) 1539 October 15

209 gulden 12 gr Lucas Malhern zu Wittenberg uff muntlich ansagen Hanse von Ponikaw camerers vor eczliche arbeit so er meinem gnedigsten hern gemacht, entricht.

Nemlichen 10 gulden vor ein tuch daruff der kunig zu Dennemargk auch vor ein tuch doruff desselben narre abconterfeiet ist.

5 gulden vor ein tuch doruff das burggrafthumb Magdeburg gemalet ist.

11 gulden 19 gr vor eine taffeln, das evangelien als man die kinder zum herren bringet.

8 gulden 6 gr vor die mummerei.

5 gulden vor den kunig aus Engelant.

10 gulden von den dreien jungen fursten abzucontrafeien.

25 gulden vor das grosse tuch daruff stehet wie man die kinder zum herren bringet.

30 gulden vor 10 grosse wappenn auf den reichstag gein Frankfurt.

25 gulden vor ein groß tuch das evangelien mit den 5 prothen und zweien vischen.

5 gulden vor das tischbrett in meins gnedl. herren schreibstuben zu Thorgaw und anders. Laut Lucas Malers aigen hantschrift. Solch gelt ist ime bei dem burgemeister Reichenbach laut des Reichenbachs schrift ubersandt worden.

Date: Eilenberg, Mittwoch nach Dionisy.

Loc.: ThHStAW (transcribed by Schuchardt 1851, I, 121-122; Schade 1974, 438, no. 318)

(246) 1539

Mich bericht mein genediger junger her als hetten ir f. g. euch befohlen etliche gemalte tucher von meyster Lucaß Maler zu fordern und wo ir dy beyhanden habt begern ir f. g. uff forderlichst nach Weymar zeusenden, hettet ir sy nit solt ir darumb schreyben das sy ir f. g. uffs erst bekommen ec.

Date: Weimar, 1539

Loc.: ThHStAW, Letter from E. Groß to the Landrentmeister von Taubenheim (transcribed by Schuchardt 1851, I, 124; Schade 1974, 438, no. 319)

1540

(247) 1540

23 gulden 17 gr an 20 goldg. zu 25 gr Lucas Malhern vonn Wittenberg laut seiner hantschrift vor zwo taffeln, daruff zwo bulschaften gemalt, sint in der spiegelstub zu Thorgaw.

Date: 1540

Loc.: ThHStAW (transcribed by Schuchardt 1851, I, 125; Scheidig 1953, 171, no. 52; Schade 1974, no. 323)

1541

(248) 1541 May 11

193 gulden 3 gr 4 d Lucas Kranach Malhern auf meiner gnedigst und gnedigenn herren bevehel vor etzliche arbeit, die er uff bevehel gemacht, inclusis 25 gulden vor das tuch mit dem bergwerge des Schneebergs.

5 gulden 10 gr vor leinwant darzu.

30 gulden vor die drei churfürsten in der liberei [Bibliothek] zu Wittenberg.

6 gulden vor die taffel in die Lochische Heiden.

8 gulden vor ein grossen Christoff.

10 gulden vor 5 renndecken.

20 gulden vor die schiffjagt.

4 gulden von dem frawlein von Braunschweig abzumalhen.

18 gulden vor 6 grosse wapenn.

23 fl 9 gr vor 590 wapen auff papier unnd anders laut seiner ubergebenn czeteln, ditz gelt hat Caspar Pfreund sein diener

Mitwoch nach Jubilate zu Leiptzig empfangen.

Date: Leipzig, Mittwoch nach Jubilate

Loc.: ThHStAW (transcribed by Schuchardt 1851, I, 156-157; Scheidig 1953, 171, no. 53; Schade 1974, 439, no. 326)

1542

(249) 1542 February 18

7½ gr vor 5 gemalte brive Laux Maler m.g. herren erkaufft

Date: Torgau, Sonnabend nach Valentini

Loc.: StACo LA A Nr. 10087, fol. 177r (transcribed by Hambrecht 1987, 91)

(250) 1542 February 18

4 gulden dem maler von 14 brauthfackeln zu malen, [...]

110 gulden Franzen Schiller dem maler zu Leipzig von 2 behengenen zu vergulden vor das fraunzimmer, ist die abrechnung mit inem durch Lauxen Maler zu Wittenpergk bescheen

Date: Torgau, Sonnabend nach Valentini

Loc.: StACo LA A Nr. 10087, fol. 180r, 181r (transcribed by Hambrecht 1987, 91)

(251) 1542 July 16

34 gr zwein zimmergeseln Kuntzs Zimmerman undt Hans Franck haben jder ein wochen geerbt [gearbeitet], Luxs Maler ramen gemacht, daran er die fenlein ausstreicht undt in der harnisch kamern uff dem gang befestig[et], [...].

Date: Sonntags nach Margarethe

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 231b, Nr. 8a, fol. 34 Abrechnung von Arbeiten auf Schloß Weimar (cf. Schade 1974, 439, no. 332)

(252) 1542 December 14

Unnser freundlich dinst und was wir liebs unnd guts vermugen jederzeit zuvor hochgebornner furst freuntlich lieber vetter und bruder. Wir haben e l vun unns bey jegenwertig gethanes schreiben mit uberschickung der abconterfey des hauses Wolfenbittel unnd unnsrer darvor gehabtten läger : durch meister Lucassen gemacht enntpfanngen : Bedancken unns solcher zugeschickten abconterfey jegen e. l. ganntz freuntlich : unnd sindts jegen derselben : dero wir an das zu freunntlicher unnd vetterlicher wilfarung geneigt freuntlich zuuerglichen willig. Philips von gots gnaden landgrave zu Hessen, grave zu Catzenelnpogen.

Date: Fürstenberg, den 14 tag Decembris anno [15]42.

Loc.: ThHStAW; Landgrave Philipp of Hesse writing to Elector Johann Friedrich I (transcribed by Schuchardt 1871, 288)

(253) around 1542

Item ahm sonnabend nach Petri Pauli bin ich zu Wittenbergk aufgefahren unnd bin virdehalbe woche aussen gewest.

2 fl 20½ gr habe ich mit 4 personenn unnd tzwey pferde von

Wittenbergk ghenn Weymar vortzert.
 3 fl mus ich widder heim haben.
 2 fl 10 gr hat mein knecht vortzert hat von Weymar müssen
 widder ghen Wittenbergk faren und eilfhundert wapen holen
 die mhan getrugkt hat.
 10 gr 8 d hat der knecht in der herberge vortzert, $\frac{1}{2}$ scheffel
 haffern ein abennt drinne gessen und getruncken hat
 Sigmunt harnischmeister ghen Erfurd gefurt.
 8 fl 3 gr dem furmhan 25 tage zu löne. 18 gr dem bothen gen
 Wittenbl. die wapen bestalt. Suma lateris 16 fl 20 gr 2 d.
 Item was ich gemacht habe zu Weimar zum kriege.
 20 thaler fur die twey grosse hehr pannier roth unnd grun alles
 mit ungarschen golde vergult.
 25 thaler fur 25 fennrichsvhanen, eine fur ein thaler.
 $7\frac{1}{2}$ fl fur 15 rennflein, ein $\frac{1}{2}$ fl
 $\frac{1}{2}$ fl fur die rothe große renfanen.
 4 fl 15 gr für 99 eiserne fenlein auf die wagen, eins für 1 gr
 38 fl 2 gr fur achthundert ausgestrichen gedrugkte wapen.
 Suma lat. 104 fl 13 gl.
 4 fl 17 gr fur tzweihundert wapen nicht ausgestrichen, eins
 fur 1 gr auch gehn Braunschweig hern Bernhart von Milen.
 Suma lat. 109 fl 4 d.
 52 fl fur eilffhundert ausgestrichen wapen gedrugkt.
 3 fl fur 40 helleparthen rot anzustreichen unnd zu firnissen.
 Suma lat. 55 fl.
 Sumarum 181 fl 4 gr 2 d.
 Hiran habe ich 20 thaler zu Weimar von Jochim Moschwitz
 entpfangen.
 Restat mir hinterstelligk 157 fl 7 gr 2 d.
 [by another hand:] Solich hinderstelligk gelt habe ich
 Johann Pfeundt renthschreiber zu Gothaw an guldengl. zu
 25 gr in beisein Peter von Konitz renthmeisters entricht unnd
 von Joachim Muschwitz entpfangen.
 Date: Sonnabend nach Petri Pauli
 Loc.: ThHStAW (transcribed by Schuchardt 1851, I, 159–160)

1543

(254) 1543 October around 4
 123 gulden 10 gr 8 d Lucas Kranachen dem maler zu
 Wittenbergk, vor nachfolgende arbeit, so er meinem
 gnedigsten herrn zu Torgaw gemacht, nemlich:
 14 gulden vor 7 rennedecken uff die fastnacht.
 3 gr vor 5 sacktücher.
 2 fl 6 gr vor ein tuch so die tochter den vater neret im
 gefenkus.
 11 gulden 9 gr vor die jagd so hertzog Moritz geschenckt
 wordenn.
 2 gulden vor 42 menlein zur sommerleidung.
 10 gulden vor meines gnedigsten herrn und derselben
 gemahel contarfey, so Bernhartenn von Mila geschenckt.
 13 gulden 15 gr vor ein nacket weyb gemalet.

3 gulden vor Wolfenbeutel abgemalet.
 10 gulden vor meines gnedigsten hern unnd derselben
 gemahel contarfey so Cristoff von Taubenheim wordenn.
 27 gulden vor 9 ausgestrichene unnd illuminierte pergamenen
 Wulfenbeutel unnd anders lauts berurts malers vorzeichnus,
 unnd obenberurt gelt ist ime mitwoch nach Francisci zu
 Torgaw entricht wordenn.
 Date: Torgau, Mittwoch nach Francisci
 Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4551,
 fol. 24v (transcribed by Schuchardt 1851, I, 162–164; Schade
 1974, 439–440, no. 338)

(255) 1543 October 25

Ausgabe uff bevehl

45 fl 15gr, ann 40 guldenn g Lucas Malern zue Wittenberg
 vonn den unthern thorm stubenn, darinnen mein g.h. rath
 holt zu malenn, geantwort zu Torgaw, donnerstags am tage
 Luce, innhalts seiner hanntschriff.
 Date: Capitalbuch, Trinitatis 1543 – Trinitati 1544
 Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4541,
 fol. 14r

(256) 1543 October 25

133 fl 9 gr 2 d Lucas Cranachen, dem maler zu Wittenberg,
 vor nachfolgende gemachte arbeit nemlichen:
 10 gulden vor zwey tucher, doruff hertzog Moritz zu Sachsen
 samt seiner f.g. gemahel gros abcontrafeit seien.
 5 fl vor ein tuch des kaisers contrafactur.
 17 fl 3 gr ann 15 guldengroschen vor ein tuch, daruff das
 evangelium gemalet, da man die kinderlein zu Christo treget.
 5 fl 15 gr vor eine Lucretia, so graf Philipsen von Solms
 ubersant.
 6 fl 18 gr vor eine taffeln, die mein gstr. herre Herman von der
 Malsburg haben schenken lassen.
 16 fl vor die funff meines gnedigsten herrn conterfei sambt
 seiner churf. g. gemahell und den dreien jungen herlein.
 6 fl vor ein buchlein unnd davon außzustreichen, darinnen die
 ringer und fechter abgemalet seien.
 4 fl vor vier wapenn an die camerwagenn.
 4 fl von etzlichen gemelden in der gehartenn stubenn zu
 bessern.
 4 fl 12 gr dem maler zu Braunschweig Peter Spitzen darumb,
 das er der hertzen von Braunschweig forme so auf ein tuch
 gemacht gewesen dargelihen hat.
 24 fl 6 gr vor 2 große tucher, doruff die belagerunge
 Wolfenbeutel gemalet ist.
 9 fl 4 gr vor das cleine tuch, daruff die belagerunge
 Wolfenbeutel gemalet.
 10 fl 14 gr 2 d furlon und zerunge berurtes malers laut
 allenthalben seiner zeteln.
 Date: Torgau, 1543

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa. 2975. (transcribed by Schuchardt 1851, I, 160–162; Scheidig 1953, 171–172, no. 54; Schade 1974, 440, no. 341).

(257) 1543 December

Wir bekancken uns auch gegen ewer lieb derzugefertigen und durch maister Lucas abgemalte jagt. Die wir jungst mit ir ganz freundlich, und gefelt uns solche abconterfeigung ser wolm, und verhoffen zu got er solle sein gnad geben, das wir mit ewer lieb, und eye widerump mit kunsstiglich noch vil jagten halten wollen.

Date: Torgau, Mittwoch in den Weihnachtsferien

Loc.: ThHStAW; Elector Johann Friedrich I writing to Duke Moritz of Saxony (Schuchardt 1871, 288–289)

1543/1545

(258) 1543/1545

30 gulden vonn den beiden thuren in der thorm stuben zuverleuben, unnd vonn den 5 bildenn abzuconterfeien, Date: Torgau, Abrechnungen durch den Bauschreiber Merten Proschwitz im Zeitraum Freitag nach Elisabeth 1543 bis Sonntag Esto mihi 1545 (ein Jahr, 13 Wochen und 3 Tage) Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 290b, Nr. I z. g, fol. 21v; as part of the invoice for work carried out by stonemasons and sculptors in connection with the building of Schloss Torgau (cf. Schade 1974, 440, no. 342)

(259) 1543/1545

21 gulden 10 gr 6 d vor 85 bletter staniol, 10 bletter vor ein gulden

24 lb berckgrun, das lb zu 7 gr

14 lb spangrun, das lb umb 1 ort

18 lb bley gefl, 12 lb vor 1 gulden

Date: Torgau, Abrechnungen durch den Bauschreiber Merten Proschwitz im Zeitraum Freitag nach Elisabeth 1543 bis zum Sonntag Esto mihi 1545 (ein Jahr, 13 Wochen und 3 Tage)

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 290b, Nr. I z. g, fol. 25r, as part of the invoice for work carried out by slaters in connection with the building of Schloss Torgau (cf. Schade 1974, 440, no. 342)

(260) 1543/1545

165 gulden 6 gr 5 d tuncher arbeit vonn der kirchen inwendig zutunchenn, Inklusis 20 guld. vonn der kirchenn auswendig zuberappen unnd tunchenn also überhaupt verdingt

1 gulden 9 gr von meins gnedigst. herrn gewelbe zutunchenn und weissen

50 gulden von dem frawen zim[m]er, beide thorm stuben, unnd meins gnedigst. herrn beide cam[m]ern zutunchen also verdingt

25 gulden vonn den 3 kleinen wendelsteinen zutunchen unnd weissen

12 gulden 8 gr von der sacristen [Sakristei] des camerers beiden gewelbenn, des camers cam[m]er, das gemach uber der sacristenn, zutunchenn, unnd weissen, also verdingt, alles inhalts rechenbuchs

Date: Torgau, Abrechnungen durch den Bauschreiber Merten Proschwitz im Zeitraum Freitag nach Elisabeth 1543 bis zum Sonntag Esto mihi 1545 (ein Jahr, 13 Wochen und 3 Tage)

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 290b, Nr. I z. g, fol. 25r, total bill for work carried out by whitewashers in connection with the building of Schloss Torgau (cf. Schade 1974, 440, no. 342)

(261) 1543/1545

793 gulden 6 gr 6 d maler arbeit, Inklusis 50 gulden von der ausladung mit oelfarben anzustreichenn sampt den bildern fenlein unnd knopffe zuverguld.[en]

66 gulden, von 2 stuben in der ausladung zumalen unnd zuvergulden

17½ gulden vor die sieben rosen am Kirchen gewelbe, 10 gulden von der Kirchen thur unnd bilder anzustreich[en]

23 gulden vonn dem predigstuel zuvergulden unnd anzustreichenn

8 gulden fur den propheten Elias uff ein tuch in der kirchenn

70 gulden vonn der orgel zumalen und zuverguld.[en]

10 gulden von den grunen thuren in der kirchenn anzustreichenn

20 gulden vor 2 deckenn in meins gnedigsten herrn beiden cam[m]ern

2 gulden von dem einen kamyn zuvergulden

10 gulden vor den grossen knopff uff thorm zuvergulden

24 gulden fur 8 kleine knopff zuvergulden

39 gulden vor 78 knopff uff das nawe haus zuvergulden

3 gulden vonn 7 rundel auff die dachfenster anzustreichenn

Date: Torgau, Abrechnungen durch den Bauschreiber Merten Proschwitz im Zeitraum Freitag nach Elisabeth 1543 bis zum Sonntag Esto mihi 1545 (ein Jahr, 13 Wochen und 3 Tage)

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 290b, Nr. I z. g, fol. 25v, total bill for the painting work carried out in connection with the building of Schloss Torgau (cf. Schade 1974, 440, no. 342).

(262) 1543/1545

1 gulden vonn der eisern thur vor der hertzogin wendelstein grun anzustreichenn

5 gulden von 12 knopffen blau und vergult

100 gulden vonn 600 elnn creutzbogenn in der thorm stubenn zuvergulden

48 gulden vonn 6 pfeilern in der thorm stuben zumalen unnd zuvergulden

10 gulden vonn den wapen an der decken zuverguld[en] unnd anzustreichenn

12 gulden von dem kamyn in der thorm stuben zumalen, und zuvergulden]

30 gulden von den beiden thuren in der thorm stuben anzustreichen und zuvergulden]

16 gulden von 2 risenn in der thormstuben

30 gulden die vier fenster in der thormstuben zumalen

10 gulden von dem ofen fues zuvergulden] unnd anzustreich[en]

60 gulden von meiner gnedigst[en] frawen schreybstublein unnd vonn der decken in irer f.[ürstlichen] g.[naden] stuben zumalen

50 gulden vonn der deckenn in der hertzogin salh stuben

16 gulden 4 gr vonn den leisten zuvergulden umb das wapen, und den simbs umbher an der decken, in der hertzogin salhstuben

36 gulden vonn den vier fenstern unnd thuren in berurter stuben zumalenn

14 gulden von dem ofen fues, und kamyn in gemelter stuben zuvergulden unnd anzustreichen.

Date: Torgau, Abrechnungen durch den Bauschreiber Merten Proschwitz im Zeitraum Freitag nach Elisabeth 1543 bis zum Sonntag Esto mihi 1545 (ein Jahr, 13 Wochen und 3 Tage)

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 290b, Nr. I z. g, fol. 26r, total bill for the painting work carried out in connection with the building of Schloss Torgau (cf. Schade 1974, 440, no. 342)

1544

(263) 1544 August 16

6 gr hat ider [Melchior der puchsenmeister] vor 1 contrafact der stadt Ofen aüsgeben, meinen gnedigsten herren gewisen unndt weither Laux Malern zugestellet

Date: Torgau, Sonnabend nach Assumptionis Marie

Loc.: StACo LA A Nr. 10096, fol. 309r (transcribed by Hambrecht 1987, 92)

(264) 1544 October 7

100 gulden Lucas Cranach Malern zu Wittenberg auf rechnunge etzlicher arbeit inhalts seines sohns bekentnus. 225 fl 17½ gr Lucas Cranachen Malern zu Wittenberg zu betzalunge seiner gethanen arbeit lauts seiner rechnungs zeteln darunter sich der her Camerer von Ponikaw unterschrieben unnd es sollten 322 fl 17½ sein. So hat gedachter Lucas Maler aus negst gehaltenem ostermarkte inhalt des capitels uff bevehl 100 gulden auff rechnunge empfangen damit ist er seiner gethanen arbeit die er zu Weimar inn den neuen gemachen unnd sonst gethan laut seiner bekentnus entlichen vorgnuget. Actum Torgaw, Dinstags nach Francisci.

Date: Torgau, Dienstags nach Francisci

Loc.: ThHStAW (transcribed by Schuchardt 1851, I, 164–165; Schade 1974, 440, no. 347)

(265) 1544 November 24

3 gulden aus genaden 3 Laux Malern lohnknaben, haben meinen gnedigsten herren umb die hoffclaidung angesucht, bevhel des camerers

Date: Torgau, Montag nach Elisabeth

Loc.: StACo LA A Nr. 10097, fol. 257r (transcribed by Hambrecht 1987, 93)

(266) 1544/1545

Im 44 yar bis ins 45 yar.

Item das furlon zum neuen paw, wen ich gefordert pin worden zum ersten, schreib mir sein Churfurstlich genad von der Neustat von der Orlaw [Neustadt/Orla], ich solt von Wittenbergk gen Torgaw zum paw, das ich anfang zu arbeiten, der paw war noch nit fertig, war ich da mit zweien geselen.

12 gr zwen tag mit zweien geselen.

18 gr in der herwer vorzert, war der hof nit da.

8 gr zu Preczst, den andern tag gefutert.

24 gr dem furman auf fir tag, da der Curfurst von Speier wider gen Torgaw kam, must ich von Wittenbergk zu seiner genaden.

4 gr auslosung 3 nacht.

18 gr pald darnach must ich ich wider gen Torgaw, drey tag vorzihen, das man nit weist, was ich machen solt.

2 gr 8 d auslosung zwue nacht.

12 gr auf zwey pfert zwen tag, das ich meine knecht mit meinen knechten herauf fur am suntag nach sanct Jacobstag [27 July 1544], da fing ich an zu arbeten und pleib da 36 wochen.

1 gr 4 d auslosung.

2 taler must ich den ein furman gen, der die auslosung selbst gab, der het ein rustwagen.

1 taler dem anderen furman mit zweien pferden vorzert sich auch selbst.

Sum[m]a 8 fl 4 gr furlon.

Date: 1545

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 6r (cf. Schuchardt 1851, I, 172–174; Schade 1974, 441, no. 357, 362)

1545

(267) 1545 January 2

3 gulden aus bevhel des cammerers Lucas Mahler zugestelt, sol er under seine knecht teilen, haben hievor auch 3 fl empfangen

Date: Torgau, Freitag nach Circumsisionis Domini

Loc.: StACo LA A Nr. 10098, fol. 51r (transcribed by Hambrecht 1987, 93)

(268) 1545 April around 5

Ich Lucas Cranach, Maler zu Wittenbergk beken hiemit dieser meiner hantschrift das ich vonn dem gestrengen erentfesten heren Hans von Ponikaw funfzig fl empfangen auf die zwei quaterm auf Lucia im 44 yar und reminiser im 45 yar und sag meinem genedigsten heren untertenigklichen dank desgleichen ewer gestrengheit das ir mich gefurdert habt. Zu warer urkunt hab ich mein gewonlich betschir darunter gedruht.

Date: Leipzig, Ostermarkt

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Rr. 937, fol. 3 (transcribed by Schuchardt 1851, I, 166–167; Schade 1974, 441, no. 354)

(269) 1545 April 24

Dem gestrengen und erentfesten hern Hans von Ponikaw und kamerer etc. meinem liben heren und grosforderer. Gnad und frid in Cristo und mein gantz wiliger dinst sey ewer gestrengheit alezeit zuvor bereit. Gestrenger liber her hie schick ich euch ein Maria mit einem kindlein, ein brustpild, hat ewer maler gemacht, ich hab in gar nichts daran geholfen, er hats allein gemacht, da seht ir wol wie er sich pesert. Gestrenger liber her hie schick ich euch drei quitanzen, die machen gleich 1 hundert fl und pit wolt vorschaffen, das sulchs gelt meinem guten freunt magister Lorenz Lindemann mocht werden der wil mirs gen Leipzig uberantwortten, des wil ich umb ewer strengheit wider vordinen, und wist das ich mit ganzcen fleis an der tafel mach in der kirchen meines genedigsten heren etc.

Date: Wittenberg, Freitag nach S. Gorgen im 45 gar.

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Rr. 937, fol. 10. Cranach to Hans von Ponickau (transcribed by Schuchardt 1851, I, 175–176; Scheidig 1953, 172, no. 55; Schade 1974, 440–441, no. 353)

(270) 1545 June 9

[...] Es ist meister Lucas den montag nach Bonifatii zu Thorgaw ankomen und hat die thucher zu den döcken in e. churf. gnaden stuben gemacht und zugericht, mitbracht, und den dinstag in der gewelbten thurmstuben die rosen antzumachen, angefangen [...].

Date: Torgau, Dienstag nach Bonifatii

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 290b, Nr. 1 z. g, fol. 1r, 3r (Note written by the master builder: Lucas will arrive in Torgau the Sunday after Trinity), Letter from master builder Nickel Gromann to the Elector (cf. Bruck 1903, 253; Schuchardt 286f; Schade 1974, 441, no. 355)

(271) 1545 June around 9

[...] es werden auch die beden schiden wendt vor den kamern im alten thurm verfertigt, es wird auch meister Lucas den

sonntag nach Trinitatis von Thorgaw kommen und mit den decken in den kamern des thurmes zumachen anfahren.

Desgleichen sind auch die gibel im neuen thurm verfertigt und werden die tischer zu verdeflen, die zukunfftige wochen anfachen, actu ut supr.

Date: Torgau

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 290b, Nr. 1 z. g, fol. 3r, Letter from master builder Nickel Gromann to the Elector

(272) 1545 after August 30

Item am suntag nach Trinitatis [7 June 1545] bin ich mit 6 knechten von Wittenbergk gen Torgaw kumen und am neuen pau gearbet 12 woch bis auf den suntag nach Bartolome [30 August 1545], da haben wir an der gewelpten turmstuben angefangen und die leisten im fensteren vorgult und die stern in fensteren eingesezst. Dar nach haben wir am ercker ausen und inen gemacht und in stuben in den zweien kameren und kurser, die zwen fursten ausgemacht und die seulen auf dem rorkasten und im garten, auch die tafelen gebesert, der sein funfe, die man in die kirchen gemacht hat, nun wil ich anzeigen, was vor golt und farben und leim dar auf gangen sey.

36 fl auf mich Lucas Cranach gangen 12 wochen, ein wochen 3 fl, die hat mir sein curfurstlich genad selbst vorornet.

36 fl auf 6 knecht, die woch auf 1 knecht $\frac{1}{2}$ fl, ist auch meines genedigsten hern begern.

4 fl 12 gr einem geselen, den hab ich gen Berlin geschriben, der haist Tomas, hab inn die woch 12 gr gewen und 36 gr die reis hin und erwider.

86 fl vor 21 $\frac{1}{2}$ buch feingolt, ein puch vor 4 fl.

39 fl vor 48 lb feltdun plaw und olplaw.

16 fl vor die anderen farben a[o?]le grun, gel, rot, lagk und praun.

8 $\frac{1}{2}$ fl vor 6 stain leim.

3 fl 4 $\frac{1}{2}$ gr 45 lb leinöl, ein lb vor 18 d.

3 $\frac{1}{2}$ fl vor 12 lb firmus und den guten $\frac{1}{2}$ lb vor $\frac{1}{2}$ fl.

3 fl vor porspense und harbense.

2 fl hab ich dem knecht gewen, der mir farb geriben hat.

Summ[a] 237 fl 16 $\frac{1}{2}$ gr, so vil gestes ales den sumer.

[Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 13r]

5 gr vor ein groß rosen in der obersten kamer im gewelb im erker.

4 $\frac{1}{2}$ fl vor 32 guldte rosen, 7 vor 1 fl, 8 in der turmstuben uber die fenster, 8 rosen in dem neuen erker am altten haus uber den xuren [centuren, Zentauer] und 12 rosen in derselben kamer im pet und gewelb 4 rosen in der unteren kamer im

pet. 18 gr vor die leivet im unteren erker uber den brunen, 1 el vor 18 d.
10 gr dem dregsler, der die knopflein dret oben an die deck.
1 fl 4 gr vor 5 potlon von Torgaw gen Wittenbergk.

Item was ich nun zu Wittenbergk gemacht habe.
80 fl vor die zwo decken in den zweien neuen stuben im alten haus mit den engelen und gewulcken inclusis die leisten.
d[ito]
18 fl 16½ gr vor 4½ welen leiber zu den zweinen decken, ein welen vor 5 fl, zwue welen vor 8 fl, ein welen vor 3½ fl, ein halbe welen vor 2 fl 5 gr.
62 fl 6 gr vor zwaihundert und 18 rosen in die gewelbt stuben, ein ros vor 6 gr [by another hand:] Soll m. gst. her so gedingt haben.
Hundert taler vor die zwue tafelen, das abent esen und der profet. [by another hand:] soll so gedingt haben.
Dreihundert fl hab ich dar auf empfangen.

263 Tlr 16½ gr.
[Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 13v]

Item was noch hinderstelige schuld ist, die zum paw gehort.
30 fl vor zehen fasirung, den tewichtmacher, der sein neun gewest, so hat mein genedigster her das zehent in seiner genaden stuben auf lasen schlagen
[by another hand:] sol m. gstr. her also gewilligt haben.
10 gr von der selben ram zu vorgulden.
2 fl 4 gr 9 d koldiczeleiben zu 5 tucheren, ein tuch 7 elen.
2 fl vor 6 hirsgehuren, hab ich die ent [Geweihsitzen] vorgult, meiner genedigsten frawen.
20 gr vor die zwei tefellein aus zu fasen und zu vergulden, dar inen das Crucifix und das feserpild sein eingemacht, das die seidensticker gemacht haben.
35 Tlr 13 gr 8 d
[Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 14r]

Item was noch alte schuld ist, die nit zum paw gehort.
4 fl vor die zwen auerochsen im gemach uberen sal.
10 fl vor die zwen erczherzogen Ferdinandis sun.
16 fl vor die zwen kaiser Karroli.
5 fl vor pfalczgraf Friderich churfurst.
5 fl vor den hertzog von Gulch [Julich].
16 fl vor die 16 rendeck, 8 tarztucher, 8 schiltucher, 8 sacktucher.
6 fl vor das feltlager, das in Preusen kam.
24 gr vor die drey figuren gelumanirt, vom pabst wie er auf der Hel [Hölle] sizst.
4 fl 16 gr vor hundert menlein, die sumer klaidung grün,

ein menlein vor 1 gr.
70 taler vor die tafel, die mein genedigster her dem pfalc grafen geschenckt hat. [by another hand:] sol mein gnedigster her gedingt.
131 Tlr [Taler] 18 gr
[Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 14v]

Sum[m]a vor alles was man eister Lucas dieser rechnung nach schuldigk pleiben tut
697 [Taler- oder Guldenbezeichnung fehlt] 12 gr 1 d
Daran hat er drej hundert R [Taler] empfangen
Restat: 397 Tlr [Taler] 12 gr 1 d
zubetzalen
daran geburt dem rendmeister ausserhalb des baws, die arbeit, welche nicht in baw gehoret zubetzalem, des tut
131 Tlr [Taler]
Date: no date given, relates to the period 7 June – 30 August 1545 and other undated invoices
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 13r–15r; Building of Schloss Torgau (cf. Schuchardt 1851, I, 168–171; Scheidig 1953, 172f., no. 56; Schade 1974, 441, no. 356).

(273) 1545 August
Im 45 jar
18 gr drei tag, am Pffingstmontag war drei tag ausen.
2 gr 8 d auslosung.
18 gr zwen tag mit dreien pferden, bin ich salsechst [zu sechs Mann] von Wittenberg kumen am tag s. Bonifacius [5 June 1545].
2 gr auslosung.
Summa 1 fl 19 gr und 8 d.

12 gr von der tafel mit dem abent mal von Wittenberg gen Torgaw zu furen mit zweien pferden am driten suntag nach Pffingsten [14 June 1545]
1 gr 4 d auslosung
1½ taler einem furmann, von Torgaw, hat mich mit 4 knechten her gen Wittenbergk prach mit meinem zeug am suntag nach Bartolomey [30 August 1545]. So pliben noch zwen knecht da, die musten das giter umb den altar ausmachen (etc.).

Zum ersten war mein genedigster Her (etc.) nit im lant, wen ich furlon fordert, so war nimant der befelch het, da must ichs an schreiben, sunst het ichs nit so lang lassen anstan.
Date: August 1545
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 6v, (cf. Schuchardt 1851, I, 172–174; Schade 1974, 441, nos. 357, 362)

(274) 1545 September 29

Uf lebenlang Lucas Kranach Maler 50 fl Michaelis 1545
Ich Lucas Cranach Maller zu Wittenbergk beken mit diser
meiner hantschrift, das ich von den gestrengen erentfesten
hernn Hansen von Ponickaw, curfurstlicher genaden zu
Sachsen, burgkgraf zu Mardeburgk (etc.) kamerer empfänget
hab funfzig reinisch fl in muncz yarsolt auf ein halbs yar von
Pfungsten bis auf Crucis 1545 yar, zu urkunt hab ich mein
gewonlich bitschir dar unter gedruget

L.S.

Date: Michaelis 1545

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Rr S 1-316
Nr. 937, fol. 2

(275) 1545 December 7

Ich Lucas Cranach, Maler zu Wittenbergk, beken mit diser
meiner hantschrift, das ich von dem gestrengen erentfesten
Jacob von Koseritz, rentmaister hundertundainundreisig [131]
fl empfangen hab auf erbet, die ich gemacht hab zu urkunt
hab ich mein gewonlich betschir daran gedruget, geschehen am
montag nach S[ankt] Barera [der heiligen Barbara] im 1545 jar.
L.S.

Reverse: Auff bevell 131 fl 18 gr Lucas Malern fur etlich arbeit,
Elisabeth 1545 [19 November 1545]

Date: Montag nach Sankt Barbara 1545

ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 8;
Cranach in his own hand and with ring seal.

(276) 1545

Item was ich gen Lichtenbergk gemacht hab.

14 fl vor das tuch, das zu der Loch im grunen haus gewest,
das hab ich musen der lengen 8 e[llen] gar neu gemalt.

18 fl vor das andre tuch, 8 elen preit, 28 elen lanck auch mit
hasen gemacht.

7 fl vor 2 stuck leibet, eins vor 3½ fl.

7 fl vor das tuch an der deck im schreibstublein.

4 fl vor das tuch, das Ewangelia vom weingarten, da sie die
profetten steinigen.

20 fl vor das tuch auf dem sal, da die fursten unter der
weinlawen essen.

6 fl vor das tuch sodoma und gumura, auch im sal.

6 fl 18 gr vor die drey furstin, mein genedigiste fraw und
herczog Moritz gemahel und herczog Hans Ernst gemahel
zu Kobergk.

1 fl vor die 11 ramen mit zinnober anzustreichen, da die
Verdinandisy mit iren tochteren aufstet.

1 fl 19 gr vor 10 fannen auf die hegsaullen, eine vor 3 gr.
12 gr dem furman, der die tucher gen Lichtenbergk furt.
10 gr vorzert.

1 fl 15 gr dem furman 6 tag, pracht ich das tuch gen Torgaw,
da die fursten unter der weinlauben esen.

6 gr 8 d auslosung.

Date: no date given

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975,
fol. 9r (cf. Schuchardt 1851, I, 167-168; Schade 1974, 441,
no. 361)

(277) 1545

[...] Uns eingelegten vortzeichnis werdenn befundenn [...] maister Lucas dem maler vor etzliche seine arbeits betzalen
schuldigh sein, weil darum solchs alles sechshundert sieben
und neuntzig gulden zwolf groschen und ainen pfennig thut
machen. Daran er von den bawgelde dreihundert gulden
empfangen. So stehen ime doran noch dreihundert und
neunzig gulden zwolf groschen ain pfennig zubetzalen.

Nachdem aber gedachten maister Lucas uns darunter andere
mehrer arbeits verfertigt, so in den bau noch gegeben [?]

welches einhundert ainunddreißig gulden thunt machenn [...].

Date: Sonnabend nach Barbara 1545

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. S. fol. 290b
Nr. 1 z g, 7r; Letter from Elector Johann Friedrich I to Hans
von Ponickau

1546

(278) 1546 January 21

An Lucas Mahler zu Wittenberg, den 21. Jan. 1546. Unsern
grus zuvorn. Ersamer lieber besonder! unser genedigs begeren
ist, ir wollet die conterfeien des hochgebornen fursten, unsers
freundlichen lieben oheimen und schwagern, des churfursten
zu Sachsen sampt seiner L. gemahell und derselben dreien
sönen, auch hertzog Ernten von Braunschweig, wie wir mit
euch verlassen, auf tücher fertigen und uns fürderlichen
übersenden. Auch darneben was dafür pillig zuthun antzaigen;
Solle euch dankbarliche betzalung widerfaren und daneben in
gnaden erkant werden. Datum Königspergk ec.

Date: Königsberg, Januar 21

Loc.: Formerly Staatsarchiv Königsberg, Flt. 30, p. 535,
Duke Albrecht of Prussia writing to Cranach (transcribed by
Voigt 1820, 250-251; Schuchardt 1851, I, 152; Ehrenberg 1899,
171, no. 246; Schade 1974, 441, no. 364)

(279) 1546 March 12

25 fl 15 gr für 11 gemalte tucher, des konigs Ferdinand weib
und tochter, hat Lucas Maler meinem gnedigsten hern zu
Leipzig bei Hansen Krehl innhalts seiner hantschrift bestellt.
Zahlt zu Torgaw freitags nach Estomihi, inclusis 12 gr uff
2 mahl botennlon darnach.

Date: Torgau, Freitags nach Estomihi 1546 (Capitalbuch
Sonntags Trinitatis 1545 - Trinitatis 1546)

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb 4598,
fol. 15r (cf. Schuchardt 1851, I, 182)

(280) 1546 March/April

Item was noch zum paw gehort im schlos [Torgau].

16 fl vor die zwey tucher in der oberen kamer uber dem rorkasten ein turnir und ein hirsaltz.

6 fl vor zwey tucher auch in derselben kamer, ist ein Venus und ein Lucrecia.

30 fl vor dem turnir in der oberen stuben an der kirchen.

1 fl 11 gr vor die leibet zu demselben tuch, 24 elen, ein elen vor 16 d.

18 gr dem furman mit zweien perden, der mich herprach am mitwoch nach Paulus bekerung [27 January 1546].

2 gr 8 d auslosung zwu nacht.

18 gr dem furman der die rendegk herfurt und einen malergeselen, der die tafel vorgult hat, die zu Freibergk gossen ist.

2 gr 8 d auslosung zwue nacht.

10 fl vor die selbig tafel auszufasen und zu vorgulden.

10 fl vor mein arbeit, pin siben wochen hie gewest und die fursten ins puch gemacht, 21 fursten und freillein und visirung gemacht und riter Enderlein sein rustung um prantherczen, was den zu tun gewen ist.

2 fl 2 gr hab ich einem furman musen gewen am sunabent nach der fasnacht [13 March 1546] mit dreien pferden, haist Hans Hump.

Date: no date given (origin between 13 March 1546 and 25 April 1546), pages 9 and 11 form a double page. Page 10 with details of the transfer of money (Easter 25 April 1546) and Cranach's receipt (19 May 1546) have been pasted in as evidence of payment.

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 11r (cf. Schuchardt 1851, I, 167–168; Schade 1974, 441, no. 361)

(281) 1546 May 19

Ich Lucas Cranach Maler zu Wittenbergk peken mit diser meiner hantschrift, das ich von dem gestrengen erentfesten Jacob von Koseritz anderthalb hundert fl und dreisig taler empfangen hab auf arbet wie in meiner rechenschaft angezeigt ist, geschen an mitwoch nach Jubilate im 46 yar zu urkunt hab ich mein bitschir dar an gedruget. L.S.

[Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. 2975, fol. 10r]

Auff bevelh 184 fl 6 gr Lucas Cranach Maler uff rechnung etlicher arbeit so er gein Torgaw und Lichtenberg verfertigt, Ostern 1546 [25 April 1546]

Date: Mittwoch nach Jubilate 1546

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. 2975, fol. 10r, 10v, Cranach issues a receipt for work carried out in connection with Torgau and Lichtenberg, in his own hand and with ring seal.

(282) 1546 July 24

[...] e gnaden geb ich hirmit zu erkennen, das nechten vor datum zwene boten von Wittenberg zut zweien bundlen gedruckter und ausgestrichner wapenbrieff durch den jungen Lucas Maler sambt einer nebenschrift an seinen vater haltend anher jegen Weymar komen. Dieweil aber der alt Lucas nit alhir gewesen, noch auch ich oder die reth derhalben einichen befehl gehabt, so hab ich doch dieselb annehmen lassen, auch neben den rethen vor gut angesehen und befohlen, dasieselben e.g. furderlich zugeschickt werden solten und derhalben den einen Wittenbergischen neben sonst einem andern e. g. hoffboten mit solchen zweien bundlein zu e. g. abfertigen lassen und wollen hirmit und die rhet e.g. uns freuntlich und undertheniglich befohlen haben.

Date: Sonnabend nach Marie Magdalene

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. J. fol. 751 Bb. Nr. 1 (sub 8); Duke Johann Wilhelm writing to Elector Johann Friedrich I (transcribed by Junius 1926, 228)

(283) 1546

9½ fl vor den grossen fisch gen der diesen herzog Moritz geschickt ist, 6 el[en] leibet darzu komen.

6 fl vor den pabst den pischof von Zeiczt ist worden.

3 fl vor die saw, die der herzog von Prausen [Preußen] hat wegt gefurt.

3 gr vor das futer, dar in die saw gefart ist.

8½ fl vor 17 bar ener [17 Paar Hühner], 1 par vor ½ fl

32 fl vor 16 rendegk zu der fasnacht, ein vor zwen fl.

5½ fl vor 11 sacktücher, eins vor ½ fl.

Date: no date given (origin between 13 March 1546 and 25 April 1546), pages 9 and 11 form a double page. Page 10 with details of the transfer of money (Easter 25 April 1546) and Cranach's receipt (19 May 1546) have been pasted in as evidence of payment.

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 11v (cf. Schuchardt 1851, I, 181–182; Schade 1974, 441, no. 368)

(284) 1546 July 17

256 gulden 13 gr 8 d auf mündlich anschaffen des herrn kammerers Hansen von Ponickaw Lukas Mahlern von Wittenberg von 4000 meins gnädigsten herrn und die landgrafen wapen, von idem 1gr und von anderer arbeit zu machen, laut des bekenntnis seiner aigen handschrift.

Date: 1546, Sonnabends nach Margarethe

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4631 (transcribed by Junius 1926, 228)

1547

(285) 1547 January 7

Ihr wollet auch meister Lucas dem mahler sagen, das er uns noch zwei tausent salvagarten uflegen und die ausstreichen

lasse, und wan er damit fertig uns die bei zweyen poten, doch das die nicht mit einander gehen zufertigen. Daran thut ir unsere meynung.

Date: Augsburg, Freitag nach Trium Regum 1547

Loc.: ThHStAW; Elector Johann Friedrich I writing to the commanders and councillors in Wittenberg (Schuchardt 1871, 289–290)

(286) 1547 January 8

Die salvagarden haben mir bei Lucas Malern alsbald uffzulegen bestald und wann die gefertiget, wollen wir es mit der uberschickung e. f. g. bericht nach halden.

Date: Wittenberg, den 8. Januar

Loc.: ThHStAW; Letter of reply to Elector Johann Friedrich I (Schuchardt 1871, 290)

(287) 1547 August

So begeren wir, du wellest dich furderlich zu uns anher gegen Augsburg verfügen unnd die tafel, die wir dir zumachen bevholen, mit dir bringen. Daran thustu unsere gefellige meynunge.

Date: Augsburg, den anderen Tag des Monats August 1547

Loc.: Archiv des Germanischen Nationalmuseums (transcribed by Heerwagen 1903, 425)

(288) 1547 August 14

[...] so habe [ich des] datum suntag nach Laurenti ein [schreiben] von e.f.g. entpfangen, dar[innen] e.f.g. begeren verstanden, das ich [zu] e.f.g. gegen Auspurg kommen, w[e]f[s] ich] gern thun wolt und schuldig bin. Darauf ich e. f. g. unterthenig nicht verhalten wil, das ich mit sch[wachheit] meines leibs noch zur zeit nicht raisen kan, dan ich denn schwindel im heubt habe und off in firzehn thagen nicht aussm hause komen kan, aber so mir [besser ist] und es mit dem schwindel nachlasen wird, ich mich nicht seumen und zu e. f. g. komen, bin auch sonsten im willen gewesen, e. f. g. in der anliegenden nott zu bes[uchen] und e. f. g. die arbet gebracht haben, welche ich verfertiget habe. Aber so ich wider frisch wurde, wil ich e. f. g. die arbet mitbringen. Ihm fal aber, das es mit mir nicht besser wurde, wil ich mit mein diner e. f. g. die gemachte arbet zuschicken und auch etzlichen spannigem, denen ich geerbt habe, zuschicken. Darneben sonsten etzlich gemelde und solches e. f. g. zuforen besichtigen lassen, ob e. f. g. derselben haben woldet und e. f. g. darvon nemen mocht, was e. g. gefellig sein mocht. So hette ich e. f. g. fel zu klagen und mit e. f. g. zureden, wollen sich nicht wol schreiben lassen. Wollen got den allmechtigen fur e. f. g. threulich bitten, das e. f. g. mogen frisch frolich gesunt zu lande komen [...].

Date: Wittenberg, Sonntag nach Laurenti 1547

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. J, fol.

577 Y, Nr. 16, fol. 84; Letter to Johann Friedrich I drawn up in Cranach's name but written by Cranach the Younger (transcribed by Junius 1926, 230–231; Schade 1974, 442, no. 372)

1548

(289) 1548 January 5

137 gulden 4 gr 8 d auf schriftlichen befel meines gnedigsten herrn Lucas Malhern zu Wittenberg, welche summe durch des bemelten Lucas Malers diener zu Augsburg aus etzlichen gemalten taffeln erkaufft und also von wegen der unsicherheit diesse 137 fl 4 gr 8 d meinem gn. hern zu Augsburg unterthenigst vorgesetzt dergestalt, das ime die alhier wider erlegt werden solten, welchs also wie berurt bescheen.

Date: Weimar Sonnabend nach Innocentum Puerorum

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4659 (transcribed by Junius 1926, 232)

(290) 1548 June 25

Freuntliche liebe sone, nachdem Lucas Maler noch allerlei gemelde, so uns zustendig, bei sich hat, auch das tuch, so wir zu Lichtenberg uffn sahl haben mahlen lassen wider abgenohmen und zu sich genohmen, und wir besorgen, do es die leng anstehend blieb, das sie nicht gefordert, das sie hinweg komen und verlohren werden mochten, so begeren wir feuntlich, e. l. wollen beschaffen lassen, das sie von im gefordert und jegen Weymar bracht und aufgehoben werden. In sonderheit aber ist eine tafel vorhanden, daruff die zehntausent ritter gemahlet, dieselb wollen e. l. fordern und dem renthmeister befehlen lassen, das er sie in itzigem Leiptzischen mark[t] mit vleis einmache, domit sie nicht schaden nehme, und sie der Schetzen oder Herbrots factor zustelle, domitt sie mit den gutern gegen Franckfurdt und dodannen nach Antorff gebracht und uns uberschickt, dan wir seindt willens, dieselb zu verschenken [...].

Date: Augsburg oder Brüssel, Montag nach Johannis Baptiste 1548

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L. fol. 191 B. 7. Nr. 5; Johann Friedrich I writing to his sons (transcribed by Junius 1926, 233–234)

(291) 1548 December 26

Lieber getreuer. Wir geben euch zu erkennen, das uns der hochgeborne furst, her Johans Friedrich der elter, herzog zu Sachsen etc., unser gnediger liber herr und vatter itzo von Brüssel aus geschrieben und uns euch anzuzeigen bevohlen, nachdem ir allerley gemelde, auch das tuch, so zu Lichtenberk auf dem sahl gestanden, bei euch hettet, welchs alles iren gnaden gehorig, das ir dasselbe alles mit vleis einmachen, im itzigen neuenjarßmarkt gegen Leipzik schicken und den

unsern in Marcus Buchners haus uberantworten sollet. Und dieweil ir auch daruber eine schone taffel, darauff dy zehentausen[t] ritter gemahlt, in eurer verwarung hettet, so sollet ir dieselbe taffel in sonderheit un mit allem vleiß alain auch einmachen, dasselbe mit einem gorßen A auswendig zeichnen und den unsern, wie berurt, zu Leipzig in Buchners haus neben dem andern auch überantworten lassen. Demnach begeren wir, ir wollet euch desselben auff unsere kosten also halten und in sonderheit obgemelte taffel, darauf die zehentausen ritter gemahlt sonder und alein dermaßen einmachen, do sie gleich einen weiten wege dan das andere gemaeht gefurt werden solte, das sie davon deßgleichen von regen und unwetter keinen schaden nehme [...].
Date: Weimar, am Tag Steffani, 1548
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L. fol. 231-239 C. 1, fol. 9-10 Johann Friedrich der Mittlere and Johann Wilhelm writing to Lucas Cranach (transcribed by Junius 1926, 234; Schade 1974, 442, no. 376)

1549

(292) 1549 February 8

So verstehen wir auch das meister Lucas darneben noch zwei gemalte tucher überschickt. So wollen e. l. mit dem ainen, dorauf die hasenjagt ist, die verordnung thun, das es uf dem neuen jhagthaus zu Wolfersdorff, wan der bau fertig, angeschlagen werde, und wan das andere tuch in unser stuben, dorin e. l. nun furten mit unser gemahel essen sollen, nit konte aufgeschlagen werden, platzes halben, dasselbige zu Wolfersdorff in gleichnus aufschlagen lassen, und mit dem baumeister die verfuugung thun, daß mit dem bewilligten nachschus des baugeldes der bau doselbs[t] zu Wolfersdorff volgend gefertigt werde, das er ufn sommer gewißlich fertig sei. Doran geschiet unsere gefellige meinunge.

Date: Antwerpen (?)

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L. fol. 231-239 C 1, fol. 15; Johann Friedrich I writing to his sons (transcribed by Junius 1926, 237; Schuchardt 1851, I, 194, Schade 1974, 442, no. 379)

(293) 1549 February 11

Euer gnaden conterfet haben wir von dem geleitsman zu Erfurt empfangen, und wiwohl e. g. bevohlen, das wir dasselbe gegen den predigstuhl uber [der Kanzel gegenüber] hetten aufmachen lassen sollen, weil aber die leute fast alle das angesicht nach dem predigstuhl stet, so hette es nimandes, dann wir und wehr unter dem predigstuhl stet, der doch wenig seindt, sehen können, darumb ist es, mit der rethe bedenken neben dem predigstuhl, zwischen uns und dem predigstuhl aufgemacht worden, und wirdet das volk durch die predicanten vor eurer gnaden vleissig zu bitten treulich ermahnet.

Dem furman welcher das conterfedt gegen Erfurt bracht, haben wir 2 fl und etzliche gr zu furlohn geben lassen. So hetten wir auch e. g. die taffel mit den zehn tausent rittern gern ehr nach Anthorff geschickt, haben aber keine fuhr darzu erlangen können, wir haben aber durch Jeronimus Widemahn berurte taffel heuth montags nach Dorothea von hir aus gegen Antruff geschickt, daselbst in der Fugger haus werden euer gnaden dieselbe fordern lassen, und wir wollen das furlohn von hir aus pis gegen Antruff entrichten. Was auch Lucas Mahler neben derselben taffel vor gemehlte tucher und tafeln anher gesant, das finden e. g. auf eingelegter zedel zu vornehmen und wollen uns mit den paiden tuchern, die gegen Wolfersdorff sollen gesandt werden, e. g. bevelhs halten. So wollen wir auch doran sein, das bemelt aus Wolfersdorff zu vorfertigen gegen dem fruling angefangen werden solle, dan pis anher und nach hat des ungestumben und unbestendigen wetters halben, dergleichen nit viehl leute gedenken, doran nicht vorgehomen werden können, und wollen die suma, welche e. g. doran zu vorpauen gewilliget, von der Fugger geldt nehmen und darzu beilegen.

Vorzeichnis der tafeln und gemalter tucher, welche Lucas Mahler von Wittenberk anher geschickt.

- 1) Ein taffel, darauff die zehen tausend ritter gemahlt, das kunststücke genant.
- 2) Ein groß gemahlt tuch dorauff mein genedister elter her und etzliche seiner gnaden rethe conterfedt sein, welchs zu Lichtenberk gewest.
- 3) Ein tuch, da dij hasenn die jeger fahen und brathen.
- 4) Ein tuch, sodoma unnd gomorra.
- 5) Ein tuch, da Christus jungern aus dem weingarten jegagt werden.

Wir haben auch auff e. g. bevelh Lucas Mahlern als paldt geschriebenn, das er alles e. g. gemehl mith vleis einmachen, und das teflich. mit denn 10 taußent rittern alain sonderlich und wohl verwaren und das alles auff unsern kasten, in dem vorgangenen neuen jahrsmarkt gen Leipzig schiken und den unsern daselbst zustellen solte, wie sich dann herbrats pactor e. g. berurts tefel eins zugeschik. erboth. darauff auch meister Lucas unns beijgelegte anthwort gegeben aber ungeacht der stelle seiner anthwort, hat er gar nichts gen Leipzig geschickt, wij dan dij unsseren pis zu ende des marks darauff gewartet, wij es aber zuenne muß, und wer den mahd daran vorhindert hat, das können wir nit wissen, wir wollen uns aber darumb sonderlich erkund. und e. g. davon weittern bericht thun, act. uns. Sonabent nach Erhardi.

Date: Weimar, 1549

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L. fol. 231-239 C. 1 fol. 11-14; The sons writing to their father Johann Friedrich I (transcribed by Junius 1926, 233, 239-240; Schuchardt 1851, I, 193; Scheidig 1953, 175, no. 62; Schade 1974, 442, no. 377)

(294) 1549 February 28

[...] Es hat aber Lucas Maler noch vil mer taffeln unnd gemelde, die unser seind, und zu Wittenbergk in der kirchen gewesen. Damit nun wir nach seinem tode, umb dieselbige taffeln unnd was er hatt, nicht komen, so wollen e. l. von ime ein inventarium unnd verzeichnus fordern unnd die beylegen. Und nachdem zu Wittenbergk die taffel, so uber Doctor Martini gotseligen gras geordnet wekghenomen unnd bevol. ist worden, mit nach Weymar zunemen, So wollen e. l. uns bericht., ob es geschehen, oder nicht, unnd so sy zu Weymar, dieselbe in die kierche ufmachen laßen.

Date: Brüssel, 28. Februar 1549

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L. fol. 231–239 C. 1, fol. 74v, 75, Johann Friedrich I writing to his sons (transcribed by Junius 1926, 240; Schade 1974, 442, no. 278)

(295) 1549 November 21

Es haben mir e.g. etliche thu[ch]er zugeschiket, mit denselben soll es e.g. bevel nach gehalten werden. Das tuch darauff die stat Mechel[n] gemalet, ist gantz schrecklich und ist ein anzeung des zorns gottes wider die sunde [...].

Date: Weimar, 21. November 1549

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L. fol. 287–296, C 7, fol. 26. Johann Friedrich der Mittlere writing to his father Johann Friedrich I (transcribed by Junius 1926, 244)

(296) 1549 December 7

Was die gemalten tucher belanget, zweifeln wir nit, d. l. werde darob sein, das damit unserm befehl nachgegangen. Wir begeren aber freuntlich wan doctor Bruck der alte zu Weymar sein wirdet, d. l. wollen ihme das gemeld und contrafeit, wie die stadt Mecheln durch das wetter vom pulver beschedigt, sehen lassen und an ihm horen wie es ime gefalle [...]. Die zwen kasten darinnen die kunststück und anders vorwarlich eingelegt worden, ist es an dem, das wir von dem renthmeister bericht worden seidt, das d. l. dieselben kasten in verwahrung haben solten, weil dem aber nicht also, so haben wir unserm secretario Johan Rudolf befohlen sich weiter derwegen zu erkundigen, und do sie wie wir uns versehen wollen, zur hand gebracht, so wollen sich d. l. voriges unsers gethanen befehlichs darmit halten [...].

Date: 1549, Dezember 7

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L. fol. 287–296, Faszikel C Nr. 7 p. 30; Johann Friedrich I writing from Brussels to Johann Friedrich den Mittleren (transcribed by Junius 1926, 245)

1550

(297) 1550 February 17

Euer f. gn., desgleichen vedters und herren vaters abconterfeit in dem churcleid stehen alhier in e.f.g. neuen badstuben im alten frauenzimmer. In gleichnus auch doctoris Marthini gotseliger und Philippi Melanchtonis. Wann das gerethe gein Wartburg gefurt sollen werden, dunket mich, were solche und dergleichen tucher uf Wartburg am sichersten.

Date: Weimar, Montag nach Estomihi

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L. fol. 775 cedula(?); Hans Rudolff, secretary, writing to Johann Friedrich I (transcribed by Junius 1926, 246)

(298) 1550 February 28

Das auch die contrafacturen unsers hern vettern und hern vater und unser noch vorhanden und jegen Weymar bracht sein horen wir gern. Es seindt aber nicht tucher, sondern tafeln, welche mit öhl angestrichen und nicht auf tucher gemahlet. Ob man sie nun in vorruckung des hoflagers mit jegen Wartburg wolle fuhren lassen, das wirdet man zu bedenken wissen. Wir halten aber dafor, wan sie in der kirchgewelb gelassen werden, das sie alda wol bleiben und nicht leicht hinweg genohmen werden sollen.

Date: Brüssel, 28. Februar 1550

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L.; Johann Friedrich I writing to his secretary Hans Rudolff (transcribed by Junius 1926, 246)

(299) 1550 March 22

[...] Wir haben die überschikte vorzeichnus der kasten und laden, so zu Weimar im schlos befunden, gesehen. Nachdem aber die gemalten tucher und bilder also uber einander liggen zu lassen nit grossen frommen bringen wirdet, ist uns nicht entjegen, das sie herausgenohmen und was in den gemachen zu Weymar nicht kan aufgehengt und aufgemacht werden kan, das solchs jegen Weyda und uff das neu haus zu Wolfersdorff geschickt und aufgemacht werde, doch was an iden ort geschickt ein ordentlich inventarium darüber gemacht und verzeichent werden [...].

Date: 1550, 22. März

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L. fol. 768–786 M. Nr. 1, fol. 776, 5; Johann Friedrich I writing from Brussels to his secretary Hans Rudolff (transcribed by Junius 1926, 248)

(300) 1550 June 22

[...] Und seintemal ir euch gegen uns eures lieben herrn contrafect halben, ob wir die vielleicht auf ein tuch oder sonsten haben wollten, erbieten thut, so begeren wir gnediglich, wo ir solche contrafect in gestalt eines Brustbildes auf ein tafel zu weg bringen und verfertigen lassen konntet, ir wollet dasselbe zu bestellen unbeschwert sein [...].

Date: 1550 June 22

Loc.: Formerly Staatsarchiv Königsberg. Flt. 31. p. 81. Duke Albrecht of Prussia asks Veit Dietrich's widow for a painted portrait of her late husband. (transcribed by Ehrenberg 1899, 184, no. 352; Scheidig 1953, 175, no. 61)

(301) 1550 August 16

Durchlauchter hochgeborner furst e f g. seint mein unterthenige, willige stets bereite dinst bevor an bereit. Gnediger herr nach dem e f g an meinen vattern schriftlichen haben gelangen lassen umb zehen taffeln, die e f g zumalhen haben bestellet, will ich e f g untertheniglich nicht pergen, das mein vater vor ezlichen wochen durch unnserrn alten gefangen fursten von hinnen gen Augspurgk ist abgefordert, darumb dann nun solche taffeln, nach e f g gelangen nicht so schleunig mögen verfertigt werden und wölle derwegen e f g do es anders sein mag, noch weiter genedige gedult tragen biss ungeferlich mein vatter widder anheim khomme, will ich aber unterdes solche daffeln lassen zurichten und mich bey dem Herrn Philippo Melanchton befragen, welche historien aus der heiligen Schrift sich am besten darauf zumalhen schicken mögen, e f g unterthenigst zudienen bin ich höchster vleis allzeit bereit. Geben zu Wittenbergk Sonnabendts nach Assumptionis Mariae Ao. L.mo e f g untertheniger Lucas Cranach Malher der mitler

Dat: 1550, Sonnabend nach Assumptionis Mariae

Loc.: MLHAS, Altes Archiv, Autographensammlung 1, fol.; Lucas Cranach the Younger writing to Prince Johann Albrecht, Duke of Mecklenburg, Prince of zu Wenden, Count of Schwerin, Rostock and Stargarten (transcribed by Erichsen 1997, 49–50)

(302) 1550 September

Nachdem wir auch von dem alten Lucas Maler bericht, das sein son der junge Lucas Maler zu Weymar sol sein gewest, und wir es darfur halten, d.[einer] l.[iebden] und unser jungster Son, werden sich denselbig[en] haben abconterfeihen lassen. Also begeren wir freundlich d.[eine] l.[iebden] wolle uns dieselbten abconterfectung di sein uff tafeln od[er] tuchern gemalet bei dem negst[en] pot[en] vorwarlich zuschicken, Wolten wir d.[einer] l.[iebden] widderumb wissen zutfertig[en].

Date: 1550

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L. fol. 362–368, Nr. 7r; Johann Friedrich I writing to his son Johann Friedrich d.M. residing at the time in Weimar (Wechselschriften zwischen Hertzogh Johans Friederichen zu Sachsen dem Eltern, und s. f. g. Söhne Hertzogk Johann Friederichen dem Mittlern, Inn allerhandt furgefallenen sachen zeitt s. f. g. custodien, Ao. 1550'; cf. Junius 1926, 250, Schuchardt 1851, I, 204)

(303) 1550 December 8

[...] hab ich mich darauf, weil Jorg Pentz, seliger, von hinen verreisert war, neben ueberschickung des abgossnen bildniß bei meister Lucas Cronacher zu Wittenberg um solche contrafaktor beworben, welcher vor wenig tagen mir eine zugeschickt, doch solcher unform, daß sie weiter zu schicken nit würdig [...].

Date: Nürnberg, Montag nach Nicolai

Loc.: Formerly Staatsarchiv Königsberg I. 22. 136; Kunigunde, widow of Veit Dietrichs, writing to Duke Albrecht of Prussia. (transcribed by Ehrenberg 1899, 186, no. 363; Scheidig 1953, 175f., no. 65; Schade 1974, 443, no. 388)

(304) 1550 December 15

Nachdem uns von unserm rendmaister rath und lieben getreuen Jacoben von Koseritz das Torgisch bier uberschickt ist worden, so haben wir solch geschirr mit zweien vassen Neckarweins vor unser freundliche libe gemahl und anderm ding mehr und unter anderm mit ainer gemalten tafeln und tuchern, auch etzlichen glesern lassen beladen. Wieviel der gemalten tucher und gleser sein, findet d. l. hier inliegend verzeichnet. Und ist unser freundlich begeren, d. l. wolle berurte tafel, doruf wir sampt dem capitaneo, so mit der gewarde uf uns in unser itziger custodi voerordent und bescheiden, abconterfeit sein, in gleichnus die andern gemalte tucher und gleser zu den andern glesern, die wir d. l. bei unser gehendem boten ainem zugefertigt, gein Wolfersdorf alsbald verschaffen und den baumeister Nikeln Groman mit dohin fertigen, das er die gemalten tucher in die stuben, dorinnen bis here d. l. malzeit gehalten, ufschlahe, aber die tafel mit unserm conterfeit in die camer, die neulich vor uns zugericht, ufmachen lassen. Und weil meister Lucas die beiden tucher, darauf die hasenjagd und dan wir mit etzlichen personen als einem gartenmahl abconterfeit sein, vor der zeit gein Weymar gefertigt, so wolle d. l. solche beiden tucher in die gemach, do sichs am besten schicken und leiden will, auch ausschlahen und sonsten uber solche alles was an tucher, gleser und anderm gein Wolfersdorf geschickt, ein ordentlich inventarium machen lassen [...].

Date: Augsburg, 1550 September 15

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L. fol. 449–462 Nr. 8; 6. Schreiben, Punkt 5, p. 461 des Registers. Johann Friedrich I writing to his elder son (transcribed by Junius 1926, 250–251)

(305) 1550 December 15

[...] tun demnach desselbigen neckarweins e. l. hiermit zwei fass, desgeleichen 200 pommeranzen, der wunderfrucht als halb süß und halb saur, und 100 granatäpfel sieben schachteln mit quittensaft und darüber in einer hölzernen schachtel

auf einem tuch unser contrefect ganz freundlicher meinung
übersenden [...].

Date: Augsburg

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L. fol. 807.
N. Nr. 1a, fol. 124; Johann Friedrich I writing to his wife Sibylle
of Cleves. (transcribed by Scheidig 1953, 176, no. 67; Schade
1974, 443, no. 389)

1551

(306) 1551 January 10

[...] es hette e. l. danksagung, so sie uns von die überschickten
granatapfel, pommeranzen, quittensaft und unser
contrafactur gethan, garnit bedurft [...]. Und diweil wir
vermerken, das e. l. die sieben tugenden der bilder, inmassen
die in den quittensaft gedruckt ganz wohlgefallen, so seind wir
freundlich geneigt, e. l. dieselben duch meister Lucas Maler
abmalen zu lassen, schirst nu er domit fertig, wollen wir sie e.
l. übersenden.

Date: Augsburg, 1551, Januar 10

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L fol 807
N, Nr. 1b, fol. 3 Johann Friedrich I writing to his wife Sibylle of
Cleves. (transcribed by Junius 1926, 251–252; Scheidig 1953,
176, no. 68; Schade 1974, 443, no. 391)

(307) 1551 February 27

Lieber getreuer! Wir sind bedacht, unserer freuntlichen lieben
gemahel uf irer liebden freuntlichs anlangen und bitten die
sieben tugenden mahlen zu lassen, derwegen dan etzliche
reimen, so darbei zu schreiben, gemacht sind worden, darvon
wir dir inliggende abschrift zu ubersenden. Weil wir die aber
auch gern uf ein ander und besser art und bei iedem bildnuß
zwei lateinisch und deutzsche carmina haben wolten, so
begeren wir, du wollest diese reim magister Johan Stigeln
zeigen und von unsertwegen begeren, das er seinem bedenken
nach uff ide bildtnus zwen deutzsche reimen und eben dieselb
meinung in zwei lateinische carmina vorfertigen und machen
wolle und uns dieselben furderlich ubersenden.

Date: Augsburg, den 27. Februar 1551

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L.
fol. 786 - 800 M2, Johann Friedrich I writing to his secretary
Hans Rudolf (transcribed by Junius 1926, 252; Schuchardt
1851, I, 205)

(308) 1551 March 17

Wir haben diesem boten etzliche gemahlte tucher, welche
meister Lucas alhier verfertiget, zustellen lassen mit befehlich,
das er dir dieselben soll uberantworten. Und begeren, du
wollest sie dem baumeister ubergeben und befehlen, das er
sie uff das neue haus jegen Wolfersdorff in unsere stub in den
ercker wolle anmachen und von ihm bericht nehmen, ob sie
auch an der große und lenge bequeme seyen. Dasselbe wollest

uns darnach berichten. So wollen wir alsdann derselben mehr
zurichten lassen [...].

Date: Augsburg, den 17. Martii 1551

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L.
fol. 786 -800 M2; Johann Friedrich I writing to his secretary
Hans Rudolf (transcribed by Schuchardt 1851, I, 204–205;
Junius 1926, 253–254, Schade 1974, 443, no. 394)

(309) 1551 April 22

[...] Wir haben dir auf d. l. begehren die siben tugenden, die
wir d. l. forderm in gegossen quittensaft überschickt haben,
ganz hubsch, lustig und kunstlichen uff die tucher malhen
lassen. Die wollen wir dir, so es dieser bot sagen kan, hiemit
überschicken, wo aber nicht, so wollen wir dirs bei einem
andern hinnach schicken und haben dieselbigen dermaßen
abmessen lassen, das sie in d. l. stuben zu Wolfersdorf uff
dem jagthause im erker werden gerecht sein, und ist unser
freuntlich geger, du wollest sie von uns freuntlich annemen
und, wan du ir genug gesehen hast, gegen Wolfersdorf
schicken und den baumeister alda in d. l. stube im erker
aufmachen lassen und wolle d. l. mein dabei gedenken.

Date: Augsburg, April 22

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L.
fol. 807 -808 Fasc. Nr. 1b, fol. 14v; Johann Friedrich I writing
to his wife Sibylle of Cleves (transcribed by Junius 1926, 254;
Scheidig 1953, 176, no. 69; Schade 1974, 443, no. 395)

(310) 1551 April 24

Es hat der baumeister die tucher zu Wolfersdorf in erkern
e. f. g. stuben angeschlagen. Er berichtet aber, das sie drei
querfinger braiter sein, dan die maß, so er e. f. g. überschickt,
darumb hat er sie mussen etwas einschlagen und hat mir
inligend maß der rechten breite zugestellt, damit die andern
tucher darnach auch gemacht werden.

Date: 1551, April 24

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L.
fol. 786–800 M 2 Nr. 4; Hans Rudolf, secretary, writing to
Johann Friedrich I (transcribed by Junius 1926, 254)

(311) 1551 May 1

Nachfolgende tucher und conterfectung seint meister Lucas
Maler, den 1 mai alhie zu Augspurgk uff bevhelch meins
gnedigsten herrn bezalt worden nach lautt seiner bekentdnus,
19 fl – gr – d. vor sieben tugenden, seint uff thucher gemacht.
15 fl vor drey wildt paltze, so mein gn. herr nach Wolfersdorf
geschickt.

15 fl vor einen wildtpalz sambt einem zaun umbfangen, hengt
noch in meins gn. herrn stubenn, idem.

15 fl vor ein thuch, damit mein gn. herr den Duce Dealven
vorehrt.

5 fl vor eine contrafactung, dormit mein gn. herr in gleichem

den Duce Dealuen vor erhttt idem.

5 fl vor eine contrafectung, so m. gn. herr seiner furstlichen gnaden gemal geschickt.

5 fl vor ein contrafectung, so m. gn. herr docter Achillis geben, idem.

5 fl vor eine contrafectung, welche m. gn. herr noch in irer stuben hatt hengenn.

3 fl vor eine contrafectung, so m. gn. herr seiner wirtin Ulrich [Welser] zu Augspurg geben, idem.

2 fl for eine contrafectum, welche m. gn. herr dem gulischenn [jülichschenn] hoffmeister geben.

Date: Augsburg, 1. Mai

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Bb. 4711, fol. 26 (transcribed by Schuchardt 1871, 287; Junius 1926, 255 with variations; Scheidig 1953, 176–177, no. 71; Schade 1974, 443, no. 396)

(312) 1551 May 6

[...] das die gemalte tucher in die erker zu groß oder zu breit sein sollen ist uns seltsam, dan wir sie jhe nach dem überschickten maß haben machen lassen. Wir halten aber dafür, ob sie gleich ein wenig müssen eingeschlagen werden, das es daran nicht schaden solle. So haben wir auch am negsten unserer gemahel die sieben tugenden in gleicher breit gemahlet auch hinein geschickt und wollen uns vorsehen, weil in der stuben, darinnen ir lieb itzund ist, kein tafelerk, das sich dieselben tucher wol reimen und nicht zu gros sein werden.

Date: Augsburg, 6. Mai 1551

Loc.: ThHStAW (transcribed by Junius 1926, 256)

(313) 1551 May 22

[...] bald auch bedanke ich mich auch e. gn. der sieben tugenden halb, dann sie schön sind und mir wohl gefallen und ich sie von mir nicht lassen will, dieweil man wieder zu Wolfendorf bauen wird, sie mochten sonst verloren werden, das wär schad [...].

Date: Weimar, Mai 22

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. L. fol. 807N, Nr. 2b, Vol. 2, fol. 19v Sibylle of Cleves writing to her husband Johann Friedrich I (transcribed by Scheidig 1953, 176, no. 70; Schade 1974, 443, no. 397)

(314) 1551 October 8

Zu wissen, das mein gnedigster herr uff meister Lucaßen Cranachs Malers ansuchen seiner besoldung halbenn, ime mündlich dißen bescheid durch mich Hansen Rudolf hatt lassen geben, erstlichen belangende die halbe jahrsbesoldung so ime von Michaelis anno 46 bis uff Osternn des 47den jahrs austehen solle, darumb wollte man sich in registern der renterei ersehenn, unnd do die betzalung nicht geschehen,

sol ime solch halbe jahrsold als funfzig gulden entrichtet werden. Aber von Osternn des 47den jahrs antzufahenn bis uff den mitwoch nach Maria Magdalene das ist den 23. des monats July des vorschinen funfzigsten jahrs, weil meister Lucas Kranach hochgedachtem meinem gnedigsten herren nicht gedinett, sundern zu Wittenberg geweßen, sol ime nichts gegeben werden. Wie es dan auch meister Lucas zufriden ist, und di forderung fallen zu lassen gewilliget. Und dieweil gedachter meister Lucas den 23. July im funfzigsten jhar das ist den mitwoch nach Marie Magdalene uff hochgemeltes meins gnedigsten herren begerenn zu sein kfl. gn gein Augsburgk kommen, unnd widderumb bei s. f. g. sich zu dinst eingestellt. So sol von solch zeitt antzurechnen ime alle jhar und die zeitt seines lebens ain hundertt gulden muntz folgenn und gereicht werden [...].

Dargegen aber und das mein gnedigster herr gewilliget, ime iherlich und uff sein lebenslang sein besoldung volgen zulassen als 100 gulden iherlich, hatt sich meister Lucas verpflichtet und bewilliget be s. f. g. in irer verhaftung so lang es s. f. g. gefellig, auch wuhin sein fl. gn. ziehen, zubleiben, so dan auch sein fl. gn durch gotliche verleihung der gefengnus entlediget, wolle er undter sein fl. gn und derselbigen sonen meinen gnedigen jungen herren, sich wesendlich nidder thun unnd die zeit seins lebens iren fl. gn. dienstwertig sein und bleiben. Dat: Augsburg, den achten Tag des Monats Oktober, 1551
Loc.: ThHStAW (transcribed by Schuchardt 1851, I, 195–198)

1552

(315) 1552 January 24

An Lucas Kronach Malern zu Wittenbergk, d. 24. Jan. 1552. Wir wollen euch in gnaden nit pergen, daß weylundt unser oberster tromether musicus uns lieber getreuer, Veith Königswyser, nach seinem abschiedt von diesem jamerthal ezliche knaben, die wir in unsere gnedige vorsehung genhomen, hinter sich verlassen, under welchen gegenwertiger zeiger sonderlichen erspüret, daß er von natur zu der löblichen kunst des conterfeyens, und waß deme anhengig, geneigt, dann waß ehr von sich selbst und ohne einigs kunstners bericht mit reyßen und stechen gelernt, daß werdet ir auß seinen stücken zu sehen haben; welchs uners ermessens nach gelegenheit seins alders, und bevorab weyl ehr desselben, als gedacht, von keynem kunstner underwesen, nicht zu verachten. Weil wir dann solchs vermergkt, wolten wir den knaben in seiner jugent nit gerne verseumet, sonder vielmehr in gnaden dermaßen versehen wyssen, damit ehr deß darzu ehr sonderliche begir hat, grüntlich lernen und bericht werden möchte. So wir aber ime zu solchem in deutscher nation nirgent füglichlicher zu helffen wyssen, wenn durch eure person, so haben wir inen derwegen ahn euch abfertigen wollen, und ist darumb unser gnediges synnen und begeren, ir wollet uns zu wyllen und gefallen den knaben in eure lehr

nehmen und inen im conterfeyen und reyßen, auch mit zurichtung der farben und was dann zu dieser kunst nöthig, gutwillig underrichten. Dagegen wollen wir uns mit gnediger erstattung gegen euch also erzeigen, damit eur angewanther vleiß nit vergeblich uff inen gelegt, und euch sonsten gnedigen willen zu erzeigen, seint wir geneigt. Dat. Königsberg ut sup.
Date: Königsberg, 24. Januar
Loc.: Formerly Staatsarchiv Königsberg Flt. 31, p. 272; Duke Albrecht of Prussia writing to Lucas Maler in Wittenberg (transcribed by Voigt 1820, 256; Schuchardt 1851, I, 152–153; Ehrenberg 1899, 187, no. 373; Schade 1974, 443, no. 401)

(316) 1552

Item was ich sider [seit] der negsten rechenschaf gemacht hab zu Augspurg.

20 fl vor den paris auf tuch von olfarben.

5 fl vor die Judit Doctor Achilus.

5 fl ein Mariabild der Pfisterin.

5 fl vor den pischof von Ares [Arras] vor meins heren cunterfet.

5 fl vor Thucia [Titian's] cunterfet, des malers von venendig.

15 fl vor das tuch, das Christus pey dem weib peym brune stat.

5 fl vor meins heren cunterfet Hans Welsers weib.

1½ fl vor ein claims kunterfet graf wolf gleichen.

5 fl ein tuch mit ein Caritas Dukalwum arz [?].

3 fl vor ein barmherczigkait.

4 fl vor ein Mariabild des Kaisers zwergk.

5 fl vor mein cunterfet mit einem weib.

[Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 18r]

5 fl vor mein jungen heren Johans Friedrich.

5 fl vor den kunig von Ihrusalem.

5 fl vor meins heren kunterfet, Moricz Welsler ist geschenckt gesangt.

3 fl vor den teutzen spaniyer und vor meins heren wapen.

3 ort den tischler wider auf ein neus aufzuzihen und zu machen.

7 gr vor das gros futer, das man die tucher inen gefurt hat.

2 gr vor das futer, das man den junge fursten gefurt.

3 gr vor das futer, darinen man den kunig von Jerusalem hat gen Weimer gefurt.

13½ gr vors golt auf die leisten zu vorgulden, auf die leisten Duktials [?], sein die jungfrauen gemalt.

15 gr dem tischler vor die leisten und zu beschaen ales zu samen.

4 gr vor die leisten, das ich mein genedigst hern auf hab cunterfet zu vorgulden.

[Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 18v.]

Die tucher sein noch zu vor rechnen.

Die Anna [Diana], die den geger [Jäger, Actaeon] begrust, das ein hirs [Hirsch] aus im wurd .

Ein mer wunder furt eim hern sein weib hinwegk.

Von Herculas, das er spint.

Adam und Efa.

Ein Caritas.

Ein Venus.

Ein olpergk [Christus am Ölberg].

Ein aufersteung.

Ein himelfart.

Das man die kinlein zum heren pringt.

Ein weinach [Weihnacht, Anbetung?].

Die abnemung [Kreuzabnahme] ein fesperbild.

Und die afen [Affen] zu cunterfeten.

[Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 19r]

Item die zen dannel oder paces.

Die zen zwegke [Zwerge] des Kaisers.

[Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 19v]

15 taler hab ich aug vom Fricze von Bonickay [Fritz von Ponickau] empfangen auf erwait.

20 taler hab ich empfangen vom v [Platz ausgespart; Name im Moment der Niederschrift warscheinlich vergessen] gotsman auf arweit.

[Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 20r]

Lucas Maler, 100 fl uf rechnunge

[Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 21v]

Date: no date given

Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Aa 2975, fol. 18–21 (cf. Schuchardt 1851, I, 206–207; Scheidig 1953, 177, no. 72; Schade 1974, 444, no. 408)

(317) 1552 November 2

Vonn gotts gnadenn, wir Johans Fridrich der Elter, hertzog zw Sachssenn, unnd geborner churfurst etc. landgraff inn Doringenn unnd marggraff zu Meyssenn, thun kundt unnd bekennen vor unns unnd die hochgeborne furstenu, unnsere freundliche liebe sone, gegen mennigklichen, nachdem weylanndt, die acuh hochgeborne furstenn, herr Fridrich, unnd herr Johans, gebrudere, hertzogenn zu Sachssenn, und des Heiligen Romischen Reichs ertzmarschahl, unnd churfurst, unnsere freundliche liebe vetter, und gnediger herr vater, selige gedechtnus, unnsernn lieben getrewen, Lucaß

Cranach, als irer lieb und gnade, bestalltten diener, unnd mahler, jherlich ein hundert güldenn dinnstgelt unnd die winter, unnd sommer hoffkleydung, uff sein leib, reichenn lassen, ihme auch solche besoldung, die zeitt seins lebens, jerlichenn zugeben, gewilliget, welche wir gedachtem meister Lucassen, nach feiner lieb, unnd gnad, absterbenn, jerlich zu enrichtenn, inngleichnus, gnediglich bewilliget, unnd bey unnsrer regierung, bis uff Michaelis, des sechs unnd viertzigsten jars, volgenn habenn lassenn, welcher besoldung er auch alle jar vorgnuget, unnd betzalet wordenn ist, Bis uff ein einzige halbe jarbesoldung, die ime vonn wegenn, unnsers verlossenenn kriegs, seinem bericht nach, von oberurter zeit, Michaelis im sechs unnd viertzigstenn, bis Ostern des sieben unnd viertzigsten jars, nicht enrichtet worden sein solle, Derwegen wir aber, inn uns auch gnediglich erzeigenn wollenn, wie dann solchs alles weiter, inn einer besondern verzeichnus, am datum Augspurgk, den achten tagk des monats Octobris, im ein unnd funffzigstenn jar, verschiedenn datiert, zubefindenn, davon meister Lucassenn, ein abschrift zugstallt worden ist, als habenn wir, gedachten meister Lucaßen, dieweil er, weder von unnsrerenn vedtern noch herren vatern, seligenn, keine vorschreibung daruber gehabt, und sich uff unnsrer gnediges begern, von Wittenbergk aus einem unnterthenigenn mitleiden, unnd damit uns inn unser langwierigen verhaftung die zeit nicht langweiligk, zu unns gegen Augspurgk, den 23den tagk July, inn verflossenenn funffzigstenn jar, verfuget, unnd bey uns, bis zu unnsrer, von gott, aus kayserlicher mayestadt, unnsers allergnedigstenn herrn, milde, unnd guthe vorliehenenn erledigung, verharret, angetzeigte ein hundert güldenn, gnadenn unnd dinstgeldes, vonn berurtem drey unnd zwanzigstenn tag, des monats July, antzurechnenn, zusamt der winter, unnd sommer hoffkleydung, voriger, unnsers vettern und herren vater seliger, auch unser bewilligung nach, die zeit seins lebens, vorschrieben, und bewilliget. Vorschreiben ihme angezeigte ein hundert güldenn, zusamt den zweyen hoffkleydungen, auch die kost zw hoff, hiemit, und in krafft ditz brieffs die zeit seins lebens, dargegen soll er unns, unnd unnserrn sohnenn auch die zeit seins lebens, unnd sonnst niemandts, mit dinnstenn verwandt, auch schuldigk sein, wie er sich dann darzu unnterthenigklich erbothen, bey uns, unnd unnserrn freundlichen liebenn sohnenn, die zeit seines lebens, zubleibenn unnd sich vonn unns, nicht zubegebenn, insonderheitt aber unnsere arbeit mit allem vleis fertigen, und umb solch unser gnadtengeldt und gnedigen underhaltung willen seine arbeit was er uns male etwas nehener [billiger] denn einen frembden zulassen, wie es auch mit bezalung unnd enrichtung der besoldung, so albereit, bis zwey jar uff diese vorschreibung sich vertagt, gehalten soll werdenn, solchs bringet obgemelt verzeichnus, der abrede,

clerlich mit. Derselbigenn nach, wollen wir unns, wann er des geldes nottrufftigk sein wirdet, zuerzeigenn wissen. Welches alles meister Lucas, mit unntertheniger danksagung angenohmen, gelobt, unnd zugesagt, auch daruber sein reuersbrief, gebenn hat, dem allenn was ihme betreffenn, unnd diese bestellung gegenn unns, unnd unnserrn sohnenn, verbindenn thut, nachzukommen, unnd sich sonstenn zuhaltenn, wie einem getrewenn diener, gegen seinen herrn, zuthun geburet, unnd wol annstehet, unnd bevehlenn demnach hierauff unnserrn rehntmeister, renthschreibern, und hoffgewandsaufsteilern, gedachtem meister Lucassenn, anzeigeigte ein hundert güldenn muntz, unnd die sommer und winter hoffkleydung, zureichen, unnd zugebenn, das soll ein jeder inn rechnung entnommenn werdenn, Unnd geschiet darann unnsrer meinung, zu urkundt mit unnserrm zuruck auffgedrucktem secret besiegelt, unnd geben zu weymar, Mittwoch nach Omnium Sanctorum, Anno Domini 1552
Date: Weimar, Mittwoch Omnium Sanctorum, 1552
Loc.: ThHStAW, Ernestinisches Gesamtarchiv, Reg. Rr. 397, fol. 13 (transcribed by Schuchardt 1851, I, 200–202, Schade 1974, 444, no. 406)

1553

(318) 1553 January 13

Gnedigster Herr! E. f. g. haben ungefehrden für einem jhar ein schreiben an mein liben vatter thun lassen, und darneben ein knaben mittgeschickt. So aber zu derselbige zeit vatter nicht zu Wittenberg gewesen und der briff in seinem abwesen an mich gesant, habe ich solchen unterthenig angenommen neben dem knaben. Darinn e.f.g. gnediges begeren verstanden, das e.f.g. gerne einen moler aus ihme haben wolten. So habe ichs e.f.g. aus unthertenigem wissen auff ein versuche fürgenommen, und befinde so fiel, das ehr wol tüchtig, auch etwas für andern zu lernen geneigt ist, und ich solte solchs e.f.g. vorlengest untherthenig vermelden haben; aber es ist mittler zeit ein sterben zu Wittenberg eingefallen, das ich mich mit weib und kindern alhi gen Weimar begeben und meine molerjungen mit mir anher genomen. Nun habe ich den Heinriche angenommen auff drei jhar lang, die ehr als mitenander bey mir sein solt. Daran wil ich kein fleis sparen, ihn zu underweisen nach meinem fermügen. Verhoffe, e.f.g. werden des gnedigen gefallen haben; hette auch gerne gesehen, das ehr etwas gemolet hette und solchs e.f.g. zugeschickt, aber ißst hadt sichs dismal nicht schicken wollen, bin aber mit gottes hülff willens, auff künftigt fasnacht mich wider gegen Wittenberg zu begeben, und aldo sol ehr etwas machen; solchs sol e.f.g. förderlich zugeschickt werden, wie ehr auch e.f.g. selbs zu versten geben wirdt. Solchs habe ich e.f.g. unterthenig nicht vorhalten wollen. Damit seint e.f.g. dem gnedigen schutz des almechtigen bevolen, und wünsch

e.f.g. ein glückseliges newes jhar. e.f.g. untherteniger williger diener Lucas Cranach der Mittler Moler.

Date: Weimar, Freitag nach Erhardi

Loc.: Formerly Staatsarchiv Königsberg Schbl. 62, Nr. 21; Cranachs the Younger writing to Duke Albrecht of Prussia (transcribed by Voigt, 1820, 257–258; Schuchardt 1851, I, 153–154; Ehrenberg 1899, 188, no. 382; Schade 1974, 444, no. 409)

Date: Wittenberg, den 8 tag May im 53ten

Loc.: Formerly Staatsarchiv Königsberg, Schbl. 62, Nr. 21; Lucas Cranach the Younger writing to Duke Albrecht of Prussia (transcribed by Voigt 1820, 260; Ehrenberg 1899, 189, no. 387)

(319) 1553 April 11

[...] Nu gnedigster her, wil mir gebüren, ewren gnaden was sehen zu lassen, was ich die zeit gelernet het bei meister Luxen; schicke damit ewren gnaden ein geringes tuchlin, welches zwar nicht werdt ist, vor e. f. g. zu komen, bit aber gantz untertenig, e. g. wolden solch tuchlin gnediglich annemen, als von einem der es besser zu lernen begert; will aber ewren gnaden einmahl etwas fleissigers (wen ichs besser gelernet) sehen lassen. Och gnedigster her und fürst, es wirdt mir schwer zu behelfen, den ich keinen lon oder kleidung von meinem meister hab, on was sich e.g. meiner annemen und helfen; hab verhalben auff solch mein nottdufft Jheronimus angesucht und gebetten, er wolde mir zehen gulden geben, welchs er dan gethan hat. Hoffe aber und bitthe ewer gnaden, werden solch zehen gulden dem Jeronimus wider erlegen lassen, den ich solch geldt zu meiner notturfft und an kunst legen wil, auff das ich desdo fleisiger lernen könnte, und wil auch solch unkostung, die ewer gnaden auff mich wenden, einmal alle vordinen. Damit wil ich e. f. g. got dem allmechtigen befohlen haben, der spar ewer gnaden ihn frischer, langwiriger gesundtheit und glückseligem regiment, amen!

Date: Wittenbergk, Dienstag nach Quasimodogeniti 1553

Loc.: Formerly Staatsarchiv Königsberg, Schbl. 72, Nr. 21; Heinrich Königwieser writing to Duke Albrecht of Prussia (transcribed by Voigt 1820, 259; Ehrenberg 1899, 189, no. 388)

(320) 1553 May 8

[...] Gnedigster Herr! E. f. g. anwort auf jüngstgethanes mein schreiben hab ich empfangen, arinn e. f. g. nachmals mir, als zuvorn meinem vatter den jungen knaben Heinrichen genedist bevelhen, denselben mit müglichen vleis zu unterweisen, das ich dann zuthun gantz untherteniglich geneigt bin, und will solchen e. f. g. genedigen begeren nichts weniger als zuvorn unthertenigst nachsetzen. Und bin der gentzlichen hoffnung, so der knabe noch dermassen fortferet und mir gehorsamlich volget, als er sich dann diese zeit, so er bey mir gewesen wol angelassen, es werde ein guter maler an im zu erhoffen sein. Und damit auch e.f.g. seinen vleis zuspüren betten, hab ich im vor wenig wochen bevolhen, das er ein gemelde vorfertigte und dasselb e. f. g. zuschicke, welchs er dann treulichst gethan [...].

Notes

Appendix II : Selected primary documents on materials, techniques and workshop organisation

¹A scholarly edition of all written source materials on the Cranach family still remains highly desirable. During recent years, Rainer Hambrecht as well as Monika and Dieter Lücke have undertaken important groundwork in this area. I am indebted to them for the new or first-time transcription of numerous documents reproduced here.

²Jahrbuch der Historischen Forschung in der Bundesrepublik Deutschland, Bd. 6, Stuttgart (1981) 85–96; cf. Lücke 1998, 34.

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Note: Page numbers in *italic* denote an illustration. Works of art are listed under the artist's name. Portraits are given alphabetically by the sitter's name.

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This study provides the first exhaustive description of the materials, techniques and studio practices of the German painter Lucas Cranach the Elder (c.1472-1553). Gunnar Heydenreich draws on detailed technical examinations of Cranach's paintings, as well as an analysis of documentary sources, to explain the characteristic elements of more than three hundred of Cranach's paintings. In the process, Heydenreich provides unprecedented insight into the material and technical history of Renaissance painting in Germany.

'This book is an outstanding contribution to the field of Cranach studies. Gunnar Heydenreich sheds new light on a great many tangled art historical issues. All those with an interest in Renaissance Germany will have much to learn from this extremely important study.'

Susan Foister, Director of Collections at the National Gallery, London

Lucas Cranach the Elder, **Two Bohemian Waxwings**, c. 1530. Watercolour on paper, 34,6 × 20,3 cm. Dresden, Staatliche Kunstsammlungen, Kupferstich-Kabinett