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### Historical recipes for preparatory layers for oil paintings in manuals, manuscripts and handbooks in North West Europe, 1550-1900: analysis and reconstructions

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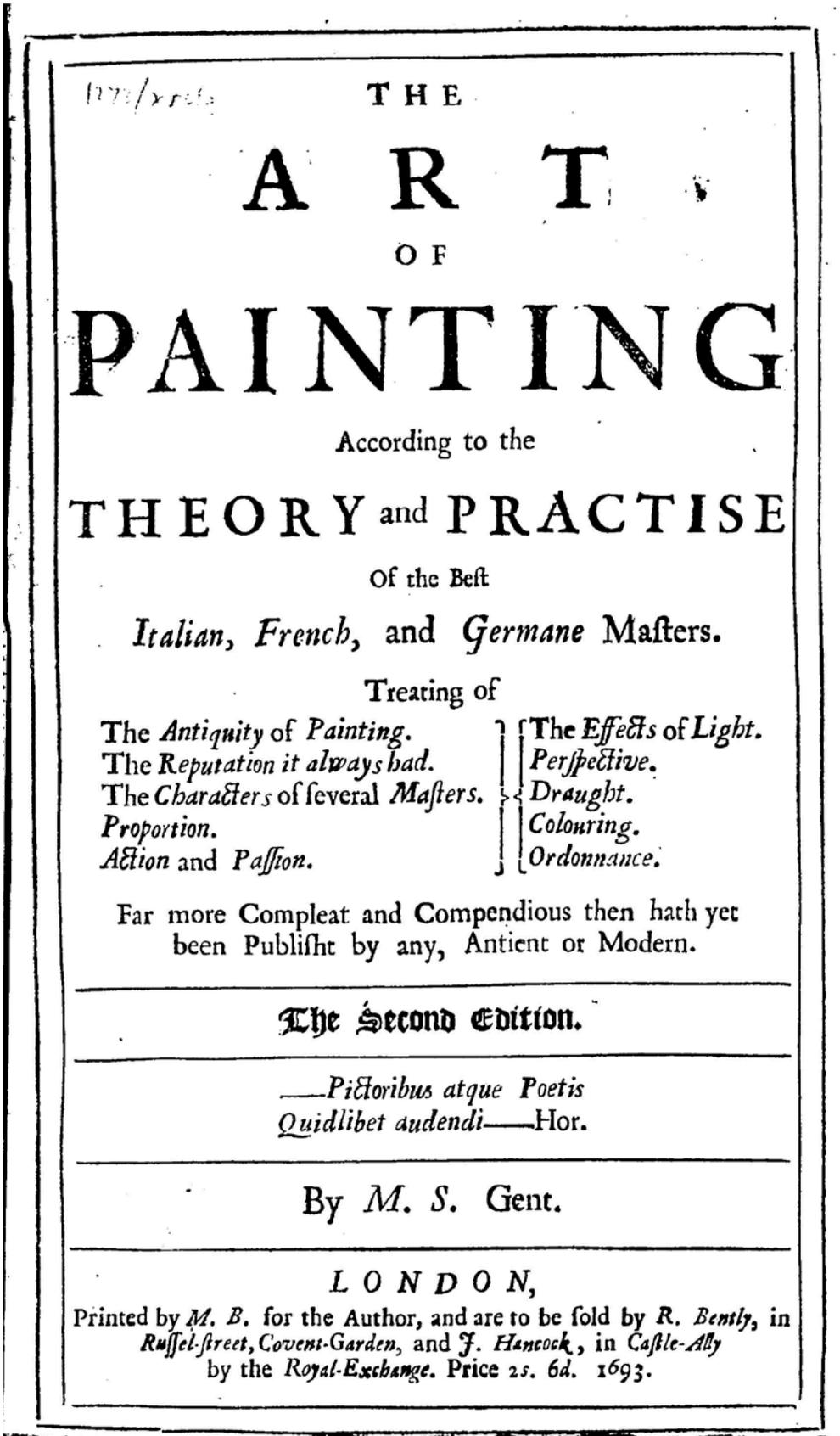


Figure 2.1 Marshall Smith. The art of painting according to the theory and practice ... second edition. London: M.S. 1693.

# Chapter 2 The recipe collection, the authors and the impact of the recipes

*.. A work very useful for all gentlemen, and other ingenious spirits, either artificers or others*

*The excellency of the pen and pencil, 1668, title page*

This chapter describes the steps followed to establish a collection of historical recipes for preparatory layers and provides a description of the size and scope of the resulting recipe dataset. Furthermore, it examines the character of the sources that contain recipes for preparatory layers and discusses what means are available to determine the purpose or goal of the sources that include recipes for preparatory layers. The number of recipes and the geographical spread led to the decision to focus this research on North West European recipes dated between 1550-1900.

## 2.1 The establishment of the recipe collection

Recipes for preparatory layers for oil painting were gathered from Western European countries, both in North and South Europe, from the earliest recipes that could be found to the end of the nineteenth century. As motivated in the introduction, searches focused on *recipes*, whether they appear in artists' manuals, painters' personal notes, commercial manufacturer manuscripts or other written instructions or accounts of artists' practice.

Recipe resources included a number of databases. These are the recipe databases established by the RCE and by Carlyle, as well as the Winsor & Newton database and the German 'Datenbank mittelalterlicher und frühneuzeitlicher kunsttechnologischer Rezepte in handschriftlicher Überlieferung'.<sup>1</sup> Additional recipe books were located in the libraries of the major Dutch universities and Dutch museums and through internet searches. An

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<sup>1</sup> The RCE's ARTES database contains recipes on a number of topics, its scope being led by individual interests of RCE researchers, and has a strong emphasis on Dutch written sources. This database for instance contains recipes on historical printing techniques, on lead white, on varnishes, on seventeenth century painting technique (collected in the context of the Rembrandt Research Project), just to name a few subjects. Carlyle's database, established for her PhD research, focuses on British Nineteenth Century manuals and handbooks. The Winsor and Newton database contains digitalised page-images of nineteenth century company recipe books. The 'Datenbank mittelalterlicher und frühneuzeitlicher kunsttechnologischer Rezepte in handschriftlicher Überlieferung', (<http://db.re.fh-koeln.de/ICSFH/forschung/rezepte.aspx>, accessed 29-6-2012), established by Dr. Doris Oltrogge of the Institut für Restaurierungs- und Konservierungswissenschaften in Cologne, contains transcribed art technological recipes from Medieval and early modern manuscripts and concentrates on recipes produced in the German speaking domain (Recipes in German and Latin).

important tool to guide searches were the bibliographies of art technological literature assembled by earlier researchers.<sup>2</sup>

All recipes were transcribed and entered into a recipe database.<sup>3</sup> Not only recipes describing the materials and layer build-up of preparatory layers were gathered, but also comments on the quality of preparatory layers, on their colour, the influence of preparatory layers on the condition of a painting, on manufacturers of ready-made grounds, etc. were assembled.

Systematic recipe-searches were concluded when evidence of 'saturation' presented itself: at this stage, no significant finds appeared and if 'new' sources appeared, they contained information that was either translated or repeated from earlier sources. The fact that intensive searching did not result in new finds within the period under investigation was interpreted as a sign that a large part of the available information had been gathered.<sup>4</sup>

## 2.2 Size and scope of the recipe collection

Figures 2.2 to 2.3 provide an overview of the recipes for preparatory layers that were gathered, including both recipes that describe a full layer build-up (Fig. 2.2a), comments relating to ground colour and composition (2.2b) as well as incomplete recipes (2.2c). Figure 2.3a shows the geographical spread of same group of recipes in Figure 2.2a, whereas Figure 2.3 b shows the geographical spread of the sources which contained these recipes. Since some sources contain a large number of recipes, while others contain only a single recipe, it is important to look at both bar graphs in order to evaluate the distribution of the information. Note should be taken of the fact that these graphs employ today's geographical borders, while these borders changed during the period under investigation due to political developments.

Only very few recipes could be located that date from before the second half of the sixteenth century. Because of the lack of recipes dating from before 1550, the decision was made to take 1550 as the starting date. The year 1900 is the endpoint of this research because from the second decade of the twentieth century onwards, new synthetic materials are introduced into the paint industry (PVA dispersions, acrylics, etc.).<sup>5</sup> Already late-nineteenth-century sources, like Church (1890), demonstrate a stronger interest in

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<sup>2</sup> In particular important were: Harley 1970, Talley 1981, Carlyle 1991 and Carlyle 2001, Schießl 1989, Massing 1995 and Massing 1998, Bordini 1991, Zindel 2010 and Nadolny et al. 2012.

<sup>3</sup> The database is described in Witlox and Carlyle 2005. Hardcopies of the recipes are kept by the author.

<sup>4</sup> No previous studies in the field of paint recipe research has described possible approaches to this situation. However the concept of information saturation as a sign that sufficient information has been gathered to allow for an analysis of a situation, is frequently used in other scientific areas, in particular in the social sciences. See for a discussion of the concept 'information saturation': Mason, Mark, 'Sample Size and Saturation in PhD Studies Using Qualitative Interviews', in: *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 11(3), Art. 8, 2010, <http://nbn-resolving.de/urn:nbn:de:0114-fqs100387>, accessed 26-3-12. Naturally the success of this approach rests with the use of a search strategy that is suitable to the questions posed.

<sup>5</sup> For instance Koller 1984: 404-5 describes the introduction of PVA dispersion paints in the 1920, Crook and Learner 2000: 15-31 the introduction of nitrocellulose paints in the 1920s, acrylics in the 1930s.

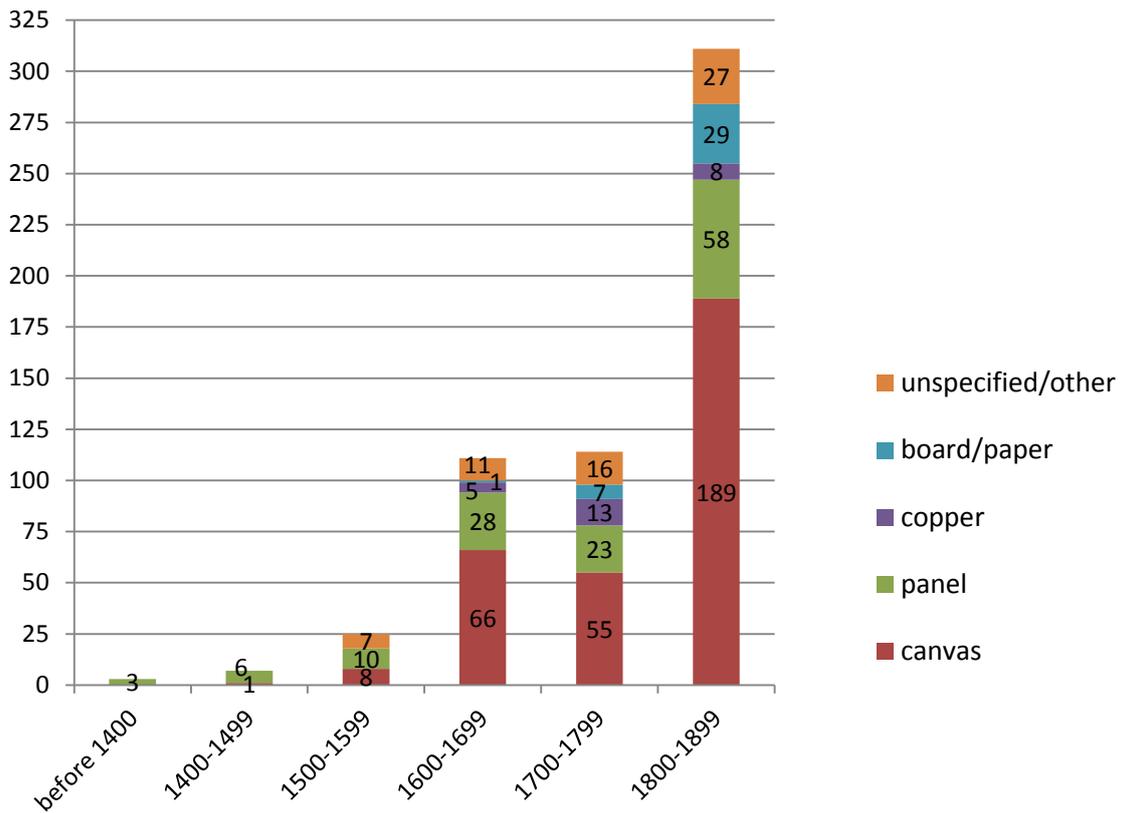


Figure 2.2a Recipes for preparatory layers that provide a full layer build-up per support

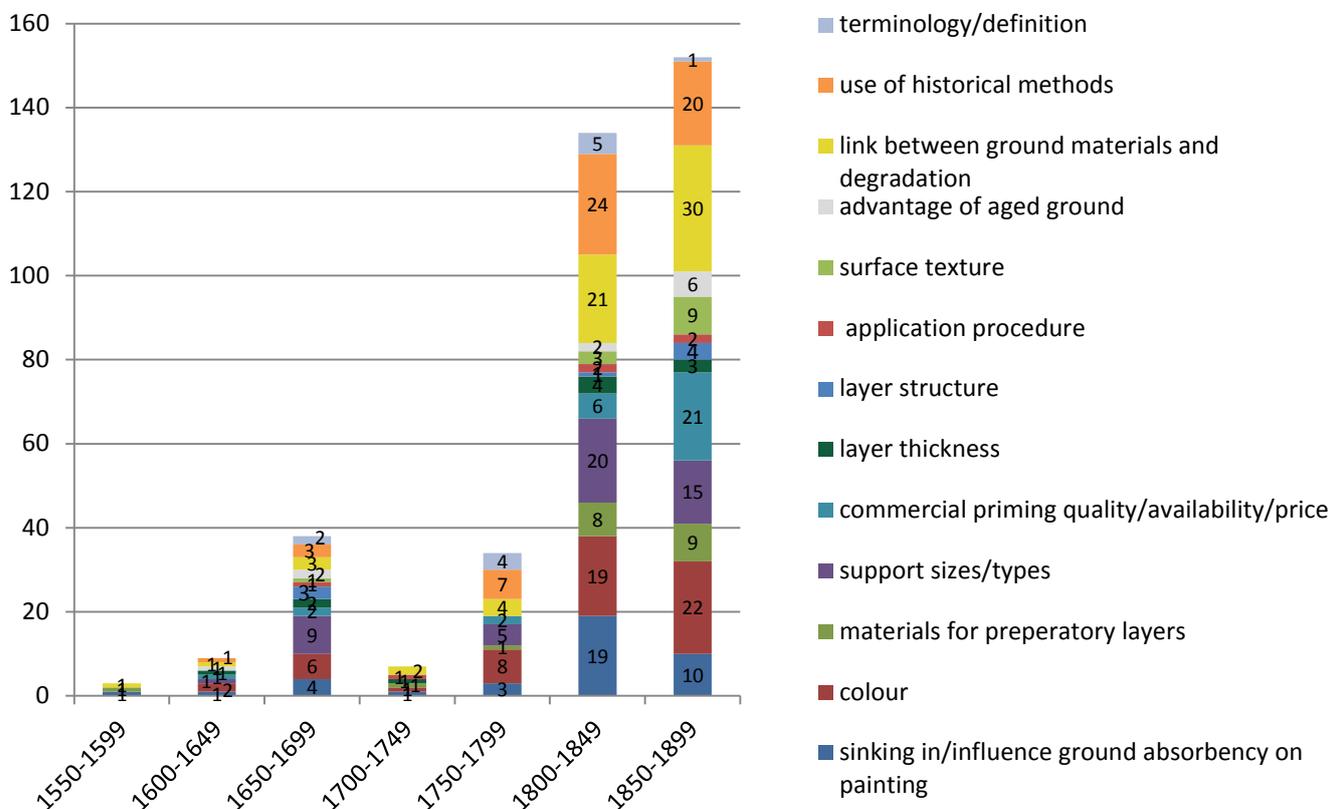


Figure 2.2b Comments in historic sources, grouped according to subject

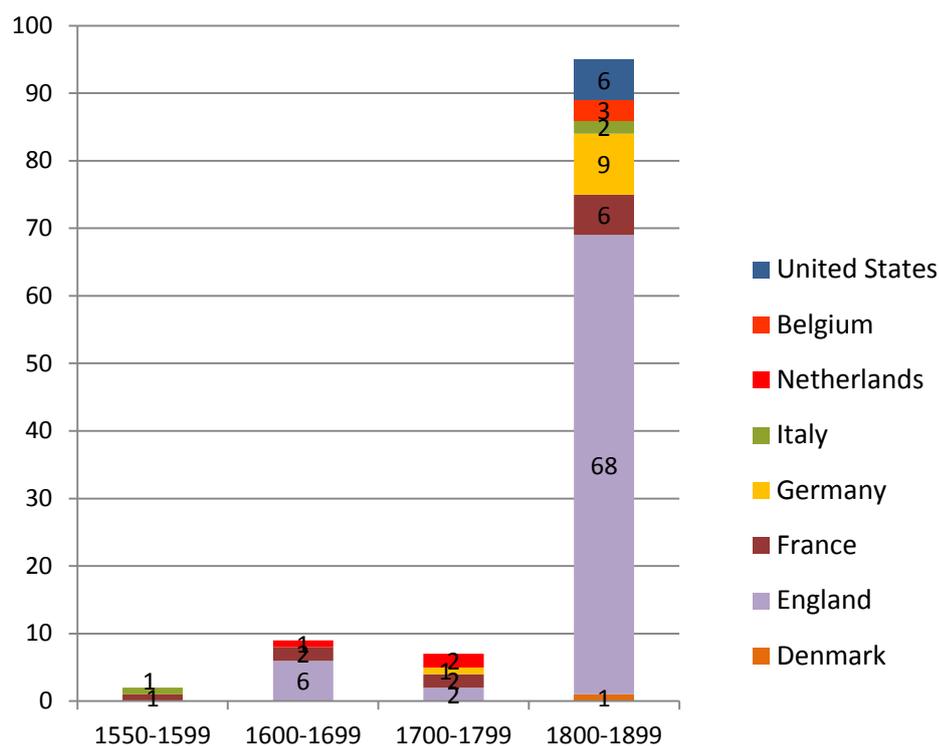


Figure 2.2c Partial recipes, divided per country

pure chemicals and synthetic materials. This tendency becomes stronger in sources that appear in the first decades of the twentieth century.

Research with a scope as wide as the present one is unlikely to locate every single primary source with recipes that has been written on the subject and has to depend on earlier research in some areas. Ideally, a recipe collection assembled with the goal of providing an overview of a period should show a regular distribution of the number of recipes and their geographical origin throughout the period. However the fact that such a division does not result is immediately obvious from Figures 2.2 and 2.3.

Figure 2.2a shows a growth in the number of recipes, from 109 seventeenth century recipes and 110 eighteenth century recipes to 286 nineteenth century recipes for preparatory layers. This growth is related to a general increase in both the edition size and frequency of publication in more recent times, a growth that Massing (1998) noted as starting during the second half of the eighteenth century.<sup>6</sup> Buringh and Van Sanden (2009) investigated the number of books published from the Middle Ages until the end of the eighteenth century. Their study points at the relation between the level of literacy and the production of books.<sup>7</sup>

<sup>6</sup> Massing 1998: 319.

<sup>7</sup> Buringh, Van Sanden 2009: 434

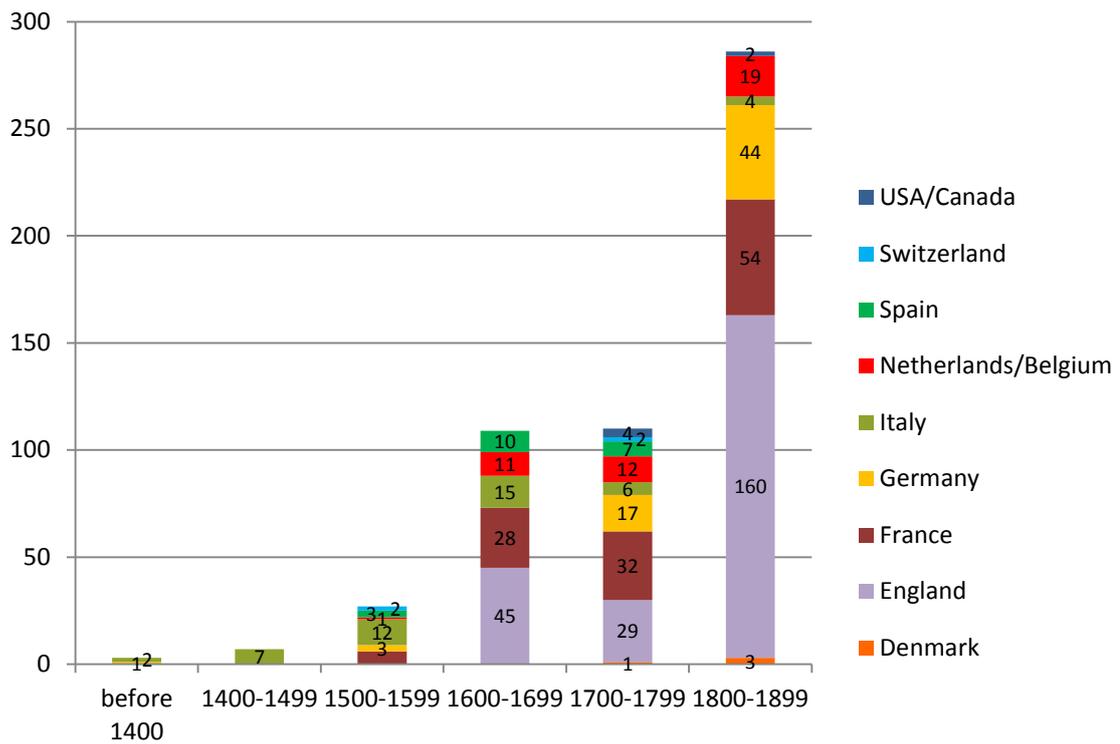


Figure 2.3a Number of recipes divided per country

(Figure 2.3a counts only the recipes from Figure 2.2a)

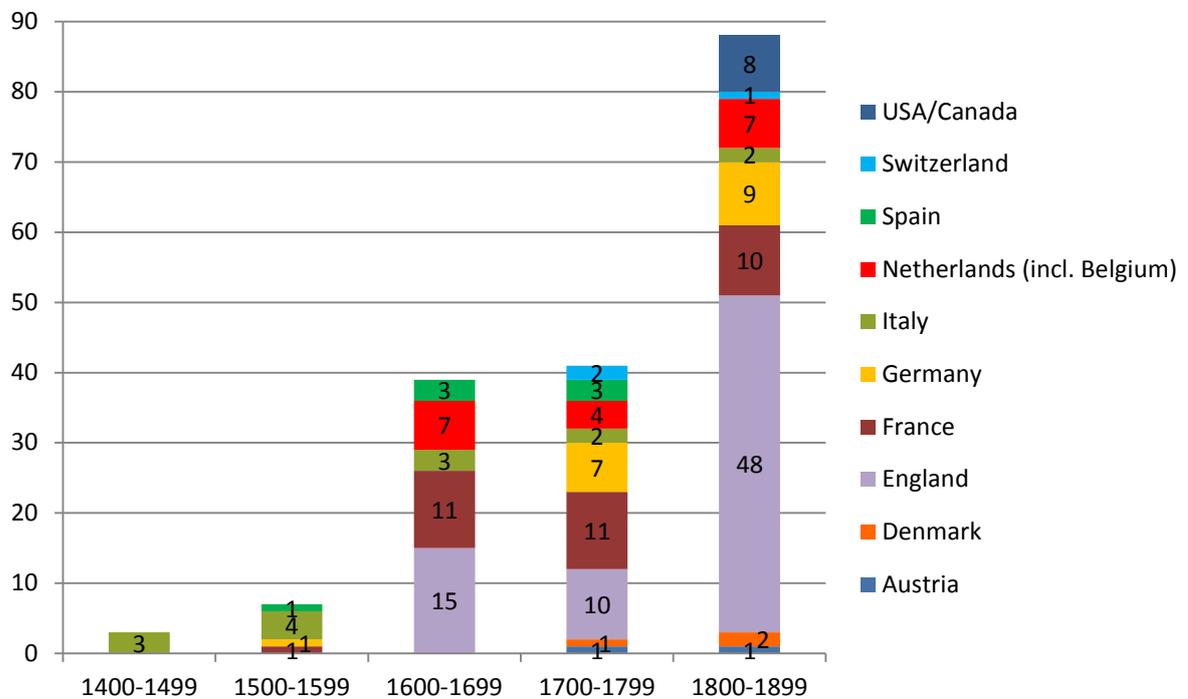


Figure 2.3b Number of sources, divided per country

(Figure 2.3b counts only the recipes from Figure 2.2a)

Figure 2.3a shows that in comparison to South European – in particular Italian – recipes, only a small number of North European recipes for preparatory layers is available that can be dated prior to 1600.<sup>8</sup> However the bar graph also shows that recipes from England, France and the Netherlands that fall within the main period under investigation are well represented.

The number of Italian and Spanish recipes that have been collected decreases after 1700. This can at least in part be ascribed the overall focus of this work, which looks at North West European countries and therefore does not involve in-depth research into Italian historical sources.<sup>9</sup>

Recipes from English speaking countries dated between 1600 and 1900 are numerous. Carlyle's comprehensive research into British nineteenth century manuals at least partially explains the large number of nineteenth century recipes.<sup>10</sup> However the fact that also many seventeenth (and eighteenth) century British sources have been located, may signify a relatively large publication output. Alternatively, the fact that in the modern Western world English is a language spoken by many, may have resulted in a relatively large portion of British sources having been studied or made available for research purposes in modern editions or as digital files. A comparison with contemporary recipes for the preparation, cleaning and using of lead white, however, points in different direction. Figures 13.1a and 13.1b provide an overview of the recipe collection that was established for the chapters on lead white (part II, Chapters 13 & 14). Figure 13.1 demonstrates that recipes originating from British sources do not show a similar relative increase in numbers during the nineteenth century. On the subject of lead white, Germany is the country which shows the highest increase in recipe production during the nineteenth century.<sup>11</sup> Does the growth in percentage of recipes on preparatory layers for oil paintings in British sources represent a relatively large interest in the subject? Later chapters will investigate the question whether there is a difference between the content and scope of British nineteenth century recipes on the subject of grounds in comparison to contemporary recipes from other countries.

Apart from the recipes in the 'Liber illuministarum'(c. 1500), no pre-eighteenth century German recipes could be located. Whereas the same search strategies have been employed to gather recipes from all North West European countries, this method has not delivered *any* seventeenth century German source. Earlier research by Schießl, who

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<sup>8</sup> Study into medieval treatises was outside the scope of the present research, which focuses on post-1550 recipes. Considering the impressive number of art technological texts that remain to be studied (*see* Clarke 2001 for a bibliography which gives an idea of the material located at present), it is entirely possible that research into this area could reveal more historical texts on the subject of preparatory layers.

<sup>9</sup> However the number of Italian nineteenth century sources providing recipes for preparatory layers appears to be limited in itself, at least during the first half of the century. Bordini 1991 provides an overview of historical manuals and handbooks on painting technique until ca. 1850. Operating in Italy, she had ample opportunity to investigate Italian manuals. This resulted in Bordini mentioning 11 nineteenth century treatises. Most manuals mentioned by Bordini were checked for recipes for preparatory layers. Only Lanzi 1809, Marcucci 1814 and Selvatico 1842 comment on historical recipes for preparatory layers. Verri 1814 discusses the influence of imprimatura colour on the preservation of pictures.

<sup>10</sup> Carlyle 1991, Carlyle 2001.

<sup>11</sup> Which may be the result of scientific innovations and the importance of the lead white industry in Germany and Austria during the Nineteenth century. Although the Dutch lead white industry also took a large segment of the market, Dutch lead white production methods apparently remained rather traditional (*see* part II, Chapter 13).

produced an extensive bibliography of German sources dated from 1530 to ca. 1950, only mentions a single seventeenth century source on oil painting technique (and this was a translation: the 1694 German translation of the 1692 Dutch treatise *De groote waereld* by Wilhelmus Beurs). This leads to the conclusion that seventeenth century German sources on oil painting technique are either lacking or very well hidden.<sup>12</sup>

Notwithstanding efforts to locate Scandinavian recipes, only a few recipe books have been found. They are all Danish nineteenth century manuals. Bregnhøi's (2003) paper on instruction manuals available to Danish housepainters provides a list of non Danish manuals dating from the nineteenth and early twentieth century that are at present available in Danish libraries or private collections. She suggests that the same recipe books were available to house painters during the nineteenth century. The list includes the manuals of Frenchmen De la Hire, Watin, Riffault and Vergnaud, Bouvier and Vibert; of German authors Cröker, Fernbach, Thon, Zahn, Gentele, Meyer, Werner and Keim and of the Englishmen Field and Church, some in their original language, others as translations into Danish. Bregnhøi's list includes some 29 eighteenth and nineteenth century books in Danish that appear to contain original, non-translated information. However the large majority of these books focus recipes for decorative painting or for varnishes.<sup>13</sup>

It is interesting to compare the number of sources including recipes for preparatory layers with Buringh and Van Zanden's (2009) investigation into the development of book production from the Middle Ages to the end of the eighteenth century. Based on the number of books *per capita*, these authors establish that during the sixteenth century, Switzerland was the largest book producer (and link this to the high output of printed text related to the Reformation), that the northern Netherlands became the most important producer of books in the seventeenth century, with England as a rising producer during the period 1650-1750. French book production became particularly large during the second half of the eighteenth century (related to the Enlightenment). Also Sweden became an important center for book production.<sup>14</sup> General tendencies in the pre-1800 production of recipes match the main developments described by Buringh and Van Zanden. However, there are some interesting exceptions. Buringh and Van Zanden's estimations *per capita* show that in seventeenth century Germany, book consumption was a third of that in the Netherlands.<sup>15</sup> Although book consumption in Germany is not very high, it is not significantly low to correspond to the absence of seventeenth century German recipe books. Another interesting difference between book production and consumption and the appearance of recipes for preparatory layers concerns Sweden. While above it was discussed that Scandinavian recipes are very rare throughout the entire period, book consumption in Sweden equalled that of Germany in the second half of the seventeenth century, and grew to nearly half the number stated for the

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<sup>12</sup> Schiebl 1989 does mention sources on painting technique that date before 1700. However these sources focus on other aspects (pigment preparation, alchemical recipes) and do not provide instructions for the preparation of supports.

<sup>13</sup> Bregnhøi 2003: 113-4.

<sup>14</sup> Buringh, Van Zanden 2009: 421-3.

<sup>15</sup> German *per capita* (per 1000 inhabitants) book consumption 1601-50: 54, against Dutch book consumption in the same period: 139, German book consumption in the period 1651-1700: 78.7 per capita, against 259.4 in the Netherlands. Buringh, Van Zanden 2009: 421, table 4.

Netherlands in the second half of the eighteenth century.<sup>16</sup> It is tempting to conclude that the interests of the inhabitants of these countries must have differed, possibly influenced by the status of painters and the systems through which young painters were trained. Extensive research into book topics would be required in order to answer the question of the influence of 'local taste' in reading. Also the role of the in- and export of foreign books would need to be clarified, as above it was shown that seventeenth century Dutch libraries already had a very international character, including French, Italian, German and English books on painting technique. The same can be said about nineteenth century Denmark. If certain centers were known for their excellent publications into specific topics, and if those publications were available, local production may not have been economically viable.

The present research discusses two nineteenth century sources written by an American author: the manuscript and the treatise of the artist Thomas Sully.<sup>17</sup> Documentary research by prior researchers (most notably Carlyle 1991 and 2001 and Mayer and Myers 2011) demonstrates that Sully was highly influenced by British painting practice, and regularly purchased materials from London suppliers. Sully travelled to England twice, had painting lessons from Benjamin West and, according to Mayer and Myers, 'was formed as an artist' by these two trips.<sup>18</sup> Although some other American artists were influenced by European practice, only Sully has been selected, as it has been established that he produced writings that are relevant to the present topic and that these writings have a strong link with European practice.

Although attempts have been made to locate first editions of each source consulted, using later editions and translations for comparison if possible, limited access to some sources in combination with the size and scope of the present project did not always allow for first editions to be found. Appendix 2, the annotated bibliography, provides an overview of the editions mentioned in modern literature and indicates which edition was consulted for this dissertation.

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<sup>16</sup> Sweden per capita book consumption 1651-1700: 58.5, 1701-1750: 83.8, 1751-1800: 208.9. Netherlands 1751-1800: 488.3. Buringh, Van Zanden 2009: 421, table 4

<sup>17</sup> In addition, recipes for preparatory layers are included from Laughton Osborn's 1845 translation of Bouvier's French manual. As much of the information in Osborn's comes straight from the French original, it is considered as positioned in between Europe and the United States.

<sup>18</sup> Mayer and Myers 2011: 73-4.

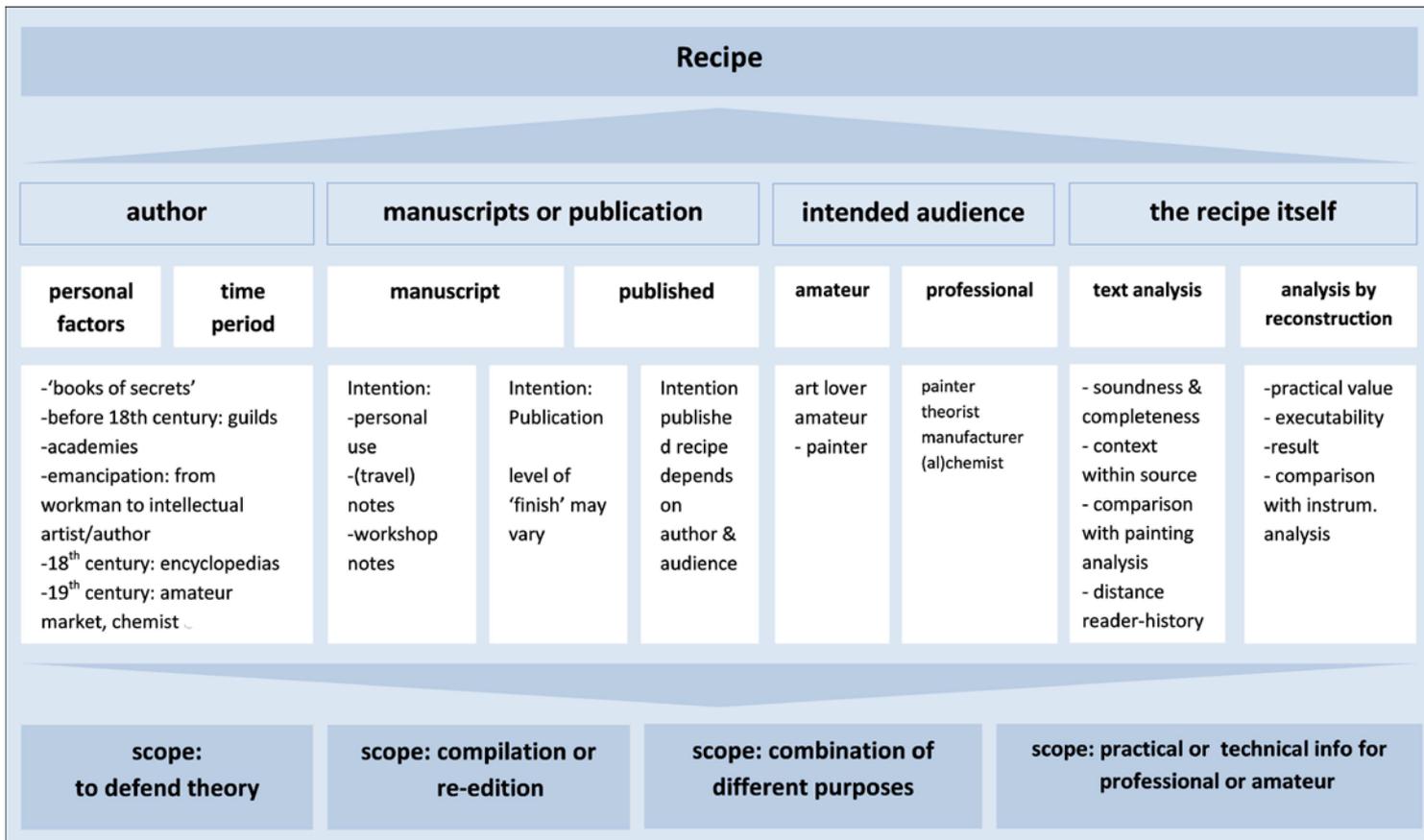


Fig. 2.4 Factors to consider in the interpretation of the relevance of historical recipes.

### 2.3 The character of the sources.

In order to come closer to understanding the meaning of individual recipes for preparatory layers, it is necessary to determine the character of the source as a whole, to investigate which types of sources pay attention to preparatory layers and when those sources were published. Also the audience addressed by the authors of recipe books may reveal information about their impact. Finally, the contents and style of writing of the recipes themselves provide important information that helps determine their purpose. How these factors lead to insight into the role of the recipes is schematically represented in Figure. 2.4.

In Appendix 2, a description of the character and scope of each individual source is provided. Based on this information, the sources have been grouped according to content matter in figure 2.5a.<sup>19</sup> This figure displays the relative occurrence of groups of sources throughout the period under investigation. Categories with similar topics have been grouped and have been given similar colours.

<sup>19</sup> This graph only includes those historical sources in Appendix 2 that discuss preparatory layers, not the sources quoted in relation to topics like lead white or starch. The Winsor and Newton Archive has been counted as a single source.

By studying the character of the sources that provide practical recipes or discussions on preparatory layers, a number of things become clear. Throughout the period, the two largest groups of sources on the subject of preparatory layers are those providing mainly practical instructions (the blues and purples in the bar graph) and those including descriptions of painting practice in order to support or illustrate certain theoretical viewpoints (greens in the bar graph). A third important group consists of sources of an encyclopaedic nature (in pink and burgundy in the bar graph). Two types of sources that fall outside these categories and have received their own label are: 'books of secrets' and publications categorized as 'trade literature'.

Practical instructions, the first category, appear in different types of publications. The most important division that exists within this category is the division between manuscripts and published sources.

Some manuscripts may have been compiled for the personal use of their author or compiler, for instance workshop notes like those in Charles Beale's 'pocket-books' (1677, 1681) and in the Winsor & Newton archive (nineteenth century). Other manuscripts were compiled with the (apparent) view of sharing knowledge through publication or multiplication of the recipes, like Cennini's treatise (c. 1400), Jacoba van Veen's 'Weetenschap' (c. 1650-1700) or Sully's 'Hints for pictures manuscript' (1809-71). Whether manuscripts were intended to be read by others will have influenced the style of writing and the level of detail. In addition, a 'general message' is likely to only be present in manuscripts intended to educate others.

The general intention of published sources is likely to have been the spreading of information. Here, as with manuscripts written for publication, the question of the intended audience is highly relevant.

The sources in Appendix 2 demonstrate that published practical instructions were frequently written with a didactic purpose, aimed at either professionals or towards amateurs. Amongst the authors of such sources were (amateur) artists, art-lovers having observed artists from close by, but also (al)chemists, applied arts professionals and paint manufacturers. Historical sources could play a role in the emancipation of the profession. For instance De Lairesse (1707) explains that he writes to further the transition of painting from a craft to an art supported by learning and science.<sup>20</sup>

Many gentlemen, and in the nineteenth century also middle-class 'amateurs',<sup>21</sup> showed an interest in art theory and artists' biographies, either as theoretical basis for their own painting efforts, or to enable them to speak eloquently about art.

Often both artists and amateurs were targeted by those authors that combine theoretical sections with sections providing practical advice (such publications are represented in green tints in Fig. 2.5a). A comparison of different sources that fall within this category shows that traditionally, they commence with the theoretical sections dealing with colour

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<sup>20</sup> A point which is supported by evidence from the introduction. *See* De Vries 2011: 30.

<sup>21</sup> *See* Carlyle (1991, 2001) for the authors and intended audiences of British manuals, etc. and Callen (2000) for a discussion on the increased interest of the middle-classes in painting during the Nineteenth century.

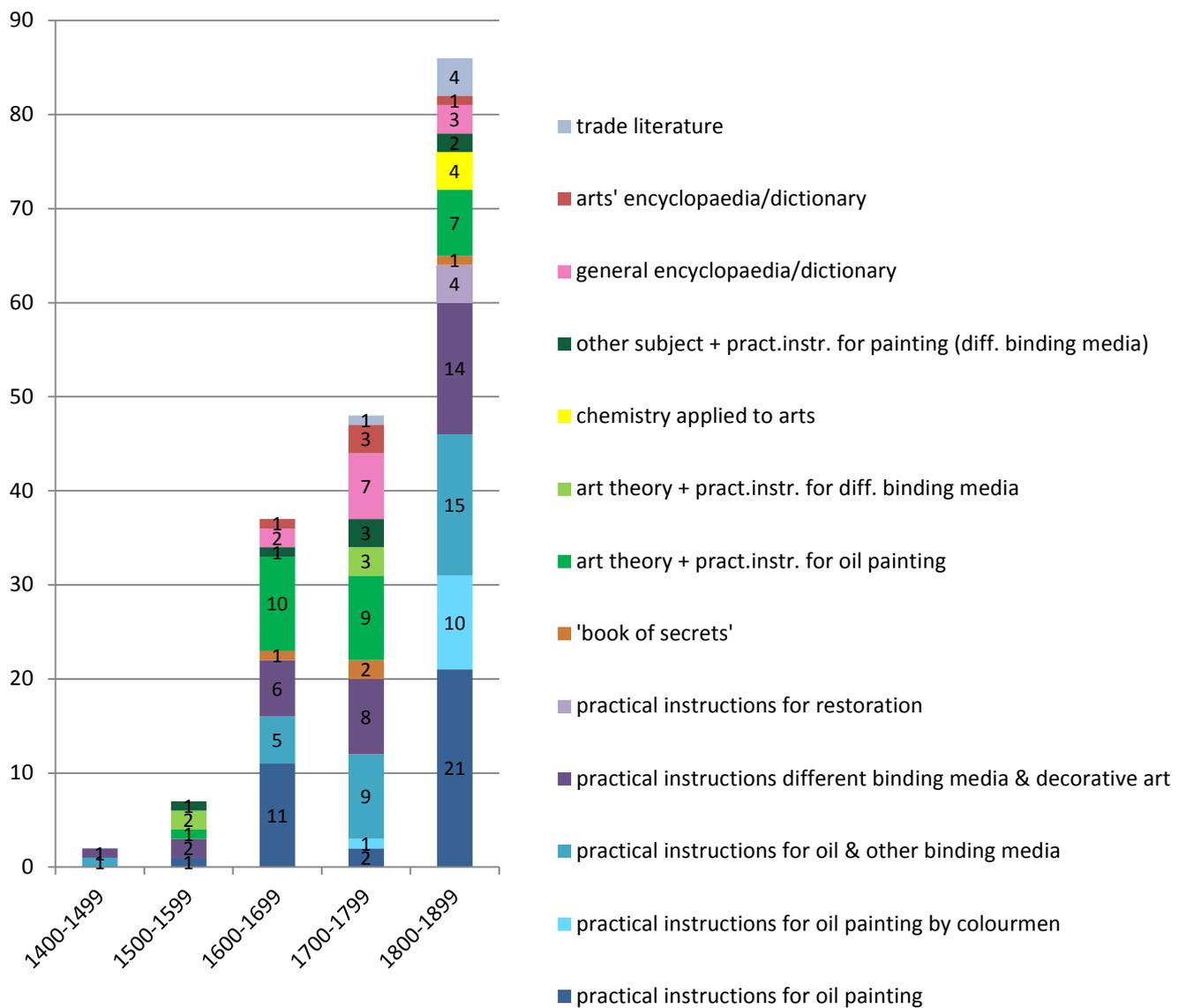


Figure 2.5a Sources grouped according to content, 1550-1900

This figure provides an overview of the main content matter of the NW European, Spanish and Italian sources that provide recipes for preparatory layers.

theory, perspective, etc., before materials and techniques employed in practice are described.

The first treatises that fall within this group were published in Italy (Borghini (1584), Armenini (1587) and Bisagno (1642)).<sup>22</sup> Authors writing elsewhere adopted this format. For instance a number of French seventeenth and eighteenth century treatises employed a similar structure and discuss the same topics.<sup>23</sup>

Also some later British and Spanish sources bore a very close resemblance to these earlier French publications (not always with an acknowledgement of their sources).<sup>24</sup> Later in the eighteenth century, a similar combination of theory and practice disappeared, although later eighteenth and nineteenth century sources did occasionally refer to publications by De Piles.<sup>25</sup>

What may be considered a separate category of sources combining theory with practice, are those books describing the lives and accomplishments of earlier artists whilst providing technical details on their technique. Vasari's (1550) and Van Mander's (1604) treatises are famous examples of this category, and they both contain practical information on preparatory layers. Other authors that combined biography with practical instruction are for instance Pacheco (1649) and Orlandi (1719). Biographies also appeared in sources with a more general scope, like Peacham's *Compleat gentleman* (1622) and Palomino (1715, 1724). The audiences of such works are thought to have consisted of educated 'amateurs', art theorists as well as intellectually developed professional artists.<sup>26</sup>

The first dictionary containing recipes for preparatory layers appeared in the last decade of the seventeenth century in France (Furetière 1690) and was followed by eighteenth century Italian, British, Dutch and French dictionaries and encyclopaedias. The fashion for dictionaries or encyclopaedias seems to die out by the mid nineteenth century; no later examples have been encountered so far. Encyclopaedists did not necessarily have personal knowledge of painting technique. Their compilations generally included descriptions of painting practice that leaned heavily on earlier sources and encyclopaedias were usually aimed at the general audience.<sup>27</sup>

'Books of secrets' form a group of publications closely linked to a tradition that according to Eamon (1994) goes back to Hellenistic times.<sup>28</sup> Their authors were often unknown or wrote under pseudonyms. This type of book assembled recipes on diverse subjects, often including medical, cosmetic, agricultural as well as artistic recipes. Repeating information from earlier sources is a general feature of 'books of secrets'. Although information was

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<sup>22</sup> Due to its subject matter, one could argue that Da Vinci's fifteenth century manuscript could be considered a forerunner.

<sup>23</sup> De Piles (1684), Félibien (1676), Dupuy du Grez (1699), Jombert (1766), Dutens (1779). Although slightly different in level of detail and style, the later treatises by Paillot de Montabert (1829) and Mérimée (1830) are not very far removed from this group of sources when we look at the manner in which theoretical subject matter is combined with practical instructions.

<sup>24</sup> For instance Smith (1692), Palomino (1715 and 1724), *Introduzione* (1821).

<sup>25</sup> Pernety 1756: 295-6, Merrifield 1849, Standage 1892: 74-76.

<sup>26</sup> Often the audience may be established based on information contained in the book's title, introduction or preface. See Appendix 2 for a description of individual sources.

<sup>27</sup> See Appendix 2.

<sup>28</sup> Eamon 1994: 3.

presented as practical recipes, some recipes in these books, especially in earlier ones, have an alchemical background and may not lead to any practically applicable results.<sup>29</sup> The high numbers in which books of secrets have survived, show their popularity with large audiences.<sup>30</sup> Eamon argues that they were written with the goal to disseminate scientific knowledge to the common man, common man being described as the middle class citizen who knew how to read vernacular, his knowledge of Latin usually being limited.<sup>31</sup> Notwithstanding the inclusion of ‘impossible recipes’<sup>32</sup> in these books, Eamon believes that ‘books of secrets’ did find practical use.<sup>33</sup> In this respect it is interesting to note that he points out that the word ‘secret’ underwent a change in meaning. While according to Eamon the sixteenth century readers would have linked it to esoteric wisdom, occultism, secrets withheld from the common man, in the eighteenth century the term could refer to ‘techniques and nothing more’.<sup>34</sup> Sources with a type of content similar to sixteenth century ‘books of secrets’ appeared until quite late, the most recent example included in the present research dating from 1783 (Buc’hoz).

The mid eighteenth century produced the first recipes for preparatory layers contained in sources focused on the application of chemistry to the arts. These sources, of which Robert Dossie’s *Handmaid to the Arts* (1758) may be considered the first, often pay much attention to pigment manufacture, explaining the chemical processes employed. Some of these publications aimed to inform not only artists but also tradesmen and manufacturers. Chemistry oriented books or handbooks written by chemists, continued to appear throughout the nineteenth century.

Another ‘new’ category that provides recipes on preparatory layers is labelled ‘trade literature’ in Figure 2.5a. An example is the Dutch *Oeconomische Courant* (1799, 1800, 1801), a newspaper that gathered news to ‘promote national housekeeping, artistry, trade, sea-trade, factories, traffic, arts, agriculture and all other means of existence’.<sup>35</sup> This category also includes Gentele’s 1860 *Lehrbuch der Farbenfabrikation*, which provided information ‘on the preparation, investigation and use of all paints presently available’, and was written for an audience consisting of paint manufacturers, chemists, technicians, tradesmen, painters and the general public.<sup>36</sup>

A final category, which only appeared in the nineteenth century, consists of books that focus specifically on the subject of restoration, usually written for a general audience. Such books often discussed the materials and techniques employed in the paintings that require restoration.

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<sup>29</sup> See Bucklow 2009. Bucklow calls them ‘impossible recipes’, by which he means recipes that they fail during practical execution. He explains their existence by the theory that such recipes make perfect sense when regarded as expressions of alchemical principles.

<sup>30</sup> See Eamon 1994

<sup>31</sup> Eamon 1994: 96-105.

<sup>32</sup> This term is used by Bucklow 2009.

<sup>33</sup> Eamon 1994: 4.

<sup>34</sup> Eamon 1994: 5.

<sup>35</sup> *Oeconomische Courant* from vol. 1, 1799: subtitle.

<sup>36</sup> Gentele (1860): subtitle.

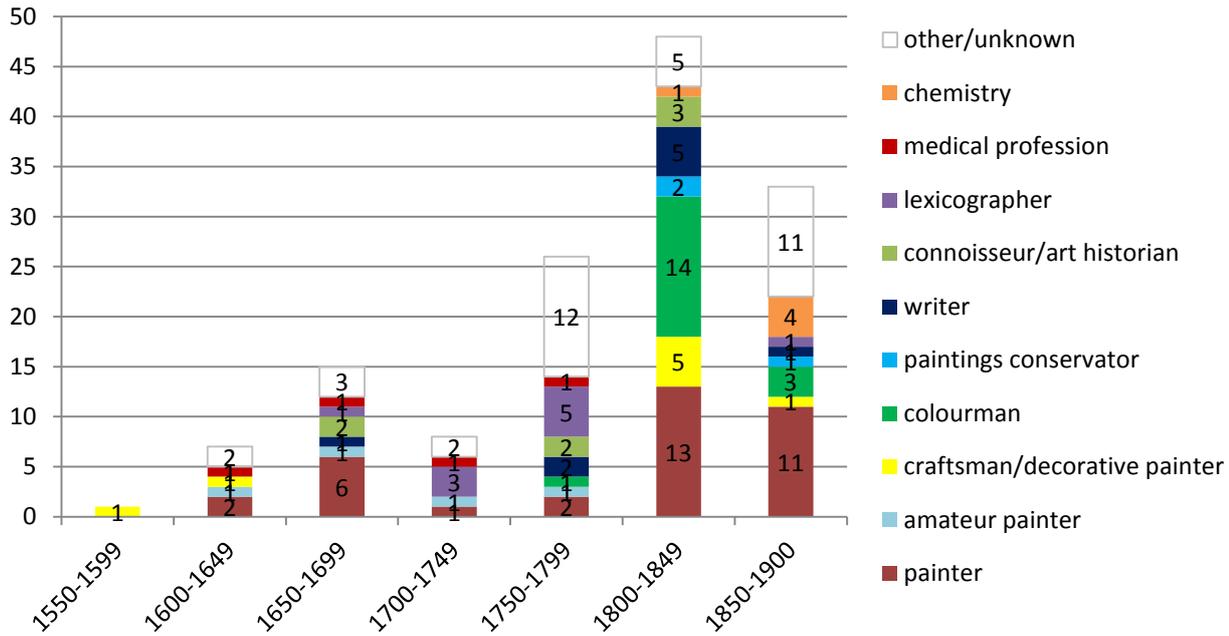


Figure 2.5b Profession/occupation of the authors of the recipe books, 1550-1900

This figure includes the sources that provide the recipes and partial recipes for preparatory layers. It includes authors that provide technical comments on the preparation, physical characteristics and colour of preparatory layers. It is based directly on Appendix 17.

Figure 2.5b provides an overview of the professions/occupations of the authors of the recipe books that describe preparatory layers. It demonstrates that painters themselves are amongst the authors throughout the period. Not only were they the largest group in the sixteenth, seventeenth and nineteenth centuries, but they were the only group of authors that is present consistently in all periods, from the late sixteenth century until the end of the nineteenth century. Amateur painters and connoisseurs also wrote on preparatory layers,<sup>37</sup> as did people with a medical profession, like De Mayerne (1620-44). However these groups of authors played a smaller role, and not continuously throughout the period. Lexicographers, professionals focussing on encyclopaedia and dictionaries, appeared as authors in the eighteenth century.

The second half of the eighteenth century saw the introduction of the colourman or artist materials supplier as author. This category became important in particular during the nineteenth century. Chemists (a category that includes both theoretical chemists, like chemistry professors and applied, practical chemistry professionals) wrote about preparatory layers during the nineteenth century and even two paintings conservators can be found amongst the nineteenth century authors.

<sup>37</sup> In some cases it is difficult to distinguish between professional artists and amateurs. The information on the profession of the author was based on descriptions in the book itself and, if available, on biographies. The category into which each individual book was entered, is found in Appendix 17.

## 2.4 The audiences of recipe books

Appendix 2, the annotated bibliography, provides information on the audiences that recipe books were aiming to address. It discusses the scope of the individual sources, taking into account additional information provided in the paratext, like the cover, foreword and introduction. Not necessarily designed or written by the main author, these elements nonetheless provide valuable information on the purpose and audience of a book.<sup>38</sup> It seems prudent to keep in mind that if certain materials or techniques are described only in books that seem more removed from an audience consisting of practicing artists, the link between their contents and professional artists' studios may be weak.<sup>39</sup>

Although some sources included recipes that were copied from earlier sources, authors were not always very forthcoming in mentioning their predecessors. This is unfortunate, since a 'quotation index' could help reveal the impact of written sources. An exception to this rule is formed by two late eighteenth century manuscripts that are kept in the Bern public library.<sup>40</sup> The anonymous author(s) of Mss.Helv.XVII, 233 (A and B) and Mss.Helv.XVII.234 included references to the French 'Traité de peinture', to the treatise by Wilhelmus Beurs (1693), to De Piles *Éléments de la peinture pratique* (1684) and to Leonardo da Vinci's treatise (15th century)<sup>41</sup>. These references give an indication of the widespread impact of some sources: a Swiss author is seen to be quoting from books written at least three quarters of a century earlier in Amsterdam, Paris and Florence. The profession of the author or authors of the Bern treatises is not known, therefore we cannot establish if he was (or they were) a professional painter or an amateur. Stettler (1987), who transcribed and studied both manuscripts, places them in the Bern area and suggests a link between the author(s) and a group of artists called the 'Berner Kleinmeister'. She posits the hypothesis that the manuscripts may have been written in the context of a local Bern art academy for young artists.<sup>42</sup>

Whether professional artists actually read recipe books is a question raised and discussed by a number of previous researchers.<sup>43</sup> Indications exist that nineteenth century artists

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<sup>38</sup> See for a discussion on the scope and meaning of the term paratext: Génette 1991.

<sup>39</sup> General encyclopaedias are a category about which one may argue that a link with painting practice may be quite difficult to establish. Of the encyclopaedias studied in the context of this dissertation, nearly all reproduced recipes that had before been published in recipe books that appear to have been related more closely to practice.

<sup>40</sup> Stettler 1987.

<sup>41</sup> See Richter, J.P., *The literary works of Leonardo da Vinci, compiled and edited from the original manuscripts*, London, 1970

<sup>42</sup> Stettler 1987: 132-3.

<sup>43</sup> Carlyle (1991, 2001) argues that professional artists do read practical manuals during the 19<sup>th</sup> century, whereas Oltrogge (2011: 26), whose work covers a much earlier period, wrote: 'It is extremely rare to prove the use of an art technological recipe collection by a practicing artist'; Smith 2010: 36 states that 'how to' books may have played a role in 'formalizing a dynamic oral tradition' while allowing for experimentation with different methods to prepare certain products. Nonetheless, in a 2011 paper, Smith writes that much-retyped seventeenth and eighteenth century texts in the fields of arts and crafts '... were probably more about owning and connoisseurship than about making'. Smith 2011: 77. Stijnman 2011: 92 expressed a different opinion about manuals for etching and engraving published in the eighteenth and nineteenth centuries. He is convinced that most of these were written for students, amateur artists and professional artists. Prak 2013: 9 states that manuals must have played a role to further the knowledge of artisans who had obtained prior

read or possessed practical manuals on oil painting. Carlyle (1991, 2001) provides evidence in the form of names of artists who owned manuals or whose libraries included practical manuals, correspondence between authors and living artists, and cites a number of instances where the preface of a manual was written by an artist. Furthermore, the colourman Roberson bought many copies of manuals by leading authors like Field, Hundertpfund, Muckley, Standage and Vibert.<sup>44</sup>

Documentary evidence about book ownership in the seventeenth and eighteenth century might be available in artists' inventories. Bredius (1915-22) transcribed a large number of Dutch artists' inventories from the sixteenth to the eighteenth centuries. The fact that for instance the inventory of Cornelis Dusart shows this painter to have owned a copy of Van Mander, Hoogstraten, De Lairese as well as 'hundreds more books', and that the inventory of Bartholomeus van der Helst includes a copy of Baten's *Secreetboeck*, seems promising. Unfortunately, most inventories do not pay much attention to books, focusing only on the more expensive editions. For instance in the inventory of Jan Lagoor, all we read is: 'on the comptoir. Books, and an old saddle', in the inventory of Pieter Linse: '14 books and some drawings' and the inventory of Jan Jansz: 'several books'. The inventory of Jacob Loys provides a list of so called 'painters books', but these seem to include only illustrated editions and prints.<sup>45</sup>

A complicating factor in evaluating the possible results of research into artist's inventories for this purpose is the fact that Bredius's transcriptions do not include all the items in each inventory. His focus lies most on paintings and painting equipment, he only lists some books by their name. For instance in the inventory of Hans van Uffelen, Bredius only lists a small number of books before writing: 'now follow numerous books' ('es folgen noch zahlreiche Bücher'), and in the inventory of Abraham de Pape, Bredius writes: 'large library, in which:' before listing a few books, none of which deal with a topic relevant to the present research.<sup>46</sup> Although an invaluable source in many respects, Bredius's *Künstlerinventäre* does not appear to be the best information source for research into books owned by artists.<sup>47</sup>

Interesting sources of information on book ownership are the *Book sales catalogues*, which were printed on the occasion of book auctions in the Netherlands.<sup>48</sup> From the

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knowledge through practical training, and agrees with Smith 2010 that manuals played a role in 'systematising and consolidating' existing knowledge that had so far not been put on paper.

<sup>44</sup> Carlyle 1991, vol. 1: 36-7, Carlyle 2001: 16-7. Examples that she provides are: David Wilkie copied Ibbetson's 1803 manual, W.L. Leitch, owned a copy of the second edition of Ibbetson (1828), Ibbetson corresponded to Sir George Beaumont (patron and amateur painter), who passed on his gumption recipe to Farington, etc. Constable owned Bardwell (1782) De Massoul (1797) and Field (1835); Turner also owned Field (1835), Holman Hunt owned Field (1850) and Mérimée. Standage and Church were in contact with Leighton. Tyrwhitt's book was an approved textbook for arts students.

<sup>45</sup> De Kruif 1994: 316 in her study of eighteenth century readers in The Hague explains the omission of many books in inventories by their relatively low value. De Kruif also points to the very true fact that ownership of a book does not necessarily signify that a book was read.

<sup>46</sup> Bredius 1915-22. vol 1: 52-3 (Dusart), vol 2: 410 (Van der Helst); vol 2: 440 (Van Uffelen), vol. 3: 955 (De Lagoor); vol. 4: 1041 (Pieter Linse); vol.5: 1495 (Jan Jansz); vol. 5: 1592 (Jacob Loys); vol. 5: 1851 (De Pape).

<sup>47</sup> The focus of the present research unfortunately does not allow for in-depth archival research into artists' inventories. Montias 1990 in his overview of prior research into the socio-economical context of Netherlandish art in the fifteenth to the seventeenth centuries, lists a number of archival resources (guild regulations, inventories, etc.) that would be relevant to investigate in this context.

<sup>48</sup> Van Selm, et al. 1950-2007.

seventeenth century onwards, the Netherlands became an important center for the international book trade. Printed auction catalogues are still in existence. The list of owners of the book collections that were auctioned includes a number of artists. Appendix 3 contains excerpts from the catalogues of those owners that have been identified as artists by the editors of the *Book sales catalogues*. The list includes well-known artists like Pieter Saenredam, Frans van Mieris and Aert Schouman, but also some lesser known artists. Together, these twelve excerpts give a first impression of the books owned by artists (and amateur painters) in the late seventeenth and the eighteenth centuries.<sup>49</sup>

Table 2.1 provides an overview of all those books included in the book sales that appear in this dissertation as a recipe source or that are quoted in the context of ground colour. The list includes some more theoretical works, such as Vasari and Van Mander or the treatises of French Academicians Du Fresnoy, Félibien and De Piles, but also ‘down to earth’ recipe books or instruction books, like Wilhelmus Beurs (1692) or Watelet’s *L’Art de peindre* (1761). Encyclopaedic works (*ABCdario pittorico*, *Encyclopaedia* of Diderot & d’Alembert, Chomel’s *Dictionnaire oeconomique*), books of secrets (Baten 1600, Tiquet 1741) were also owned by some of these painters. The book mentioned most frequently in the catalogues of artists’ book sales, is Van Mander’s *Schilderboeck*. As many as eleven copies were offered in these twelve auctions.

Table. 2.1 Books belonging to artists according to book sales catalogues, that include recipes for or discussions on the topic of preparatory layers

(data extracted from Appendix 3)

<b>Owner<sup>50</sup> (auction date)</b>	<b>Book author</b>	<b>Book title</b>
Pieter Saenredam (1667)	Carel Baten	<i>Secreet-boeck</i>
Cornelis Hogeboom, Johannes van Alphen, A.F.G. (1721)	Chomel Fresnoy/De Piles	<i>Dictionnaire oeconomique</i> <i>Art de peinture</i>
Robert Duval and ‘an amateur’ (1732)	d’Emery Albert le Grand Félibien	<i>Nouve recueil des secrets</i> <i>Secrets</i> <i>Traités</i>
Hendrik van Limborch and P.V.W. (1759)	Pomet Anonymous Armenini Vasari Van Mander De Lairese Borghini Tiquet d’Emery De Piles Du Fresnoy/De Piles	<i>Histoire generale des drogues</i> <i>Abcdario pittorico</i> <i>De veri precetti della pittura</i> <i>Vite</i> <i>Schilderboeck</i> <i>Groot schilderboek</i> <i>Il riposo</i> <i>Korte onderrigting</i> <i>Nouveau reuceil des secrets</i> <i>Cours de peinture</i> <i>L’art de peinture</i>

<sup>49</sup>In a number of auctions, books from different owners were sold together. Therefore individual ownership of the books cannot always be established.

<sup>50</sup> In a number of auctions, books from different owners were sold together. See Appendix 3 for more detailed descriptions of the auction catalogues.

<b>Owner<sup>50</sup> (auction date)</b>	<b>Book author</b>	<b>Book title</b>
Joan Willem Frank (1762)	Van Mander	<i>Schilderboek</i>
	De Lairese	<i>Groot schilderboek</i>
	Fresnoy	<i>Schilderkonst</i>
Frans van Mieris (1764)	Da Vinci	<i>Traité de la peinture</i>
	Anonymous	<i>Abcedario pittorico</i>
	Palomino Velasco	<i>Las vidas de los pintores</i>
	Du Fresnoy	<i>Arte della pittura</i>
	Du Fresnoy	<i>Van de schilderkonst</i>
Benjamin Jansen (1767)	Van Mander	<i>Schilderboek</i>
	De Lairese	<i>Groot schilderboek</i>
	De Piles	<i>Beschouwing der schilderkunde</i>
J.V.B., C.S.V.D.B., Lowies Demonie (1772)	Du Fresnoy	<i>Over de schilderkonst</i>
	De Piles	<i>Schouwburg der schilderkunde</i>
Jan Stolker, Abraham van Alleplas, K.B (1785)	Chomel	<i>Dictionnaire oeconomique</i>
	Diderot, d'Alembert, Felice	<i>Encyclopedie</i>
	Van Mander	<i>Schilderboek</i>
	De Lairese	<i>Groot schilderboek</i>
	Anonymous	<i>Cours de peinture</i>
	De Piles	<i>Traité de vernis</i>
J.J. van den Bosch, Albertus Frese, Bartholomeus Cley (1789)	Anonymous	<i>Encyclopedie, ou dictionnaire raisonné des sciences</i>
	Van Mander	<i>Schilderboek</i>
	Anonymous	<i>Traité de peinture en miniature</i>
	De Piles	<i>Schilderkonst</i>
Aart Schouman (1792)	Du Fresnoy/De Piles	<i>De schilderkonst</i>
	De Lairese	<i>Groot schilderboek</i>
	Van Mander	<i>Schilderboek</i>
	Du Fresnoy	<i>De schilderkonst</i>
	De Piles	<i>Beredeneerde beschouwing der schilderkunde</i>

The fact that artists like Saenredam, Schouman and Van Mieris were interested in recipe books and art theoretical treatises that include practical advice is important. It suggests that these artists felt the need to read and collect this type of information. The wide selection of books in Appendix 3 demonstrates that these artists had a broad interest. It also demonstrates the international character of seventeenth and eighteenth century book collections. The apparent relevance of written sources for artists, as demonstrated by these auction catalogues, is reassuring and adds to the evidence collected by Carlyle about 19th century artists' owning practical manuals. It shows that there is at least a good chance that the information contained in written sources has relevance for actual painting practice.<sup>51</sup>

<sup>51</sup> Can it be ruled out that the auctioneer attached a well-known name to an auction with the hope to attract more buyers? Unfortunately Van Selm and his co-authors do not provide an answer to this question. It would seem prudent to take this possibility into account when we consider the value of these sources.

## 2.5 Thoughts on textual analysis

The profession of its author, the general scope of the source as explained by the title, the preface or introduction, the table of contents; the fact whether a recipe appeared in other sources before, its placement within the source, are all factors which provide clues about the scope of the recipe. They will help to understand the presence or omission of certain details in a particular recipe.

However the recipe text itself also requires critical evaluation. Is the recipe included in a text for the straightforward reason to provide practical or technical advice to professional or amateur? Is its appearance the result of an author's wish to assemble or compile as much information as possible on a particular subject? Does the author have an ulterior motive, such as to reproduce a recipe with the intention to defend a theory?

The wording, in relation to the period when it was written, will provide the first clues. A typical example of a text that, based on its direct and clear style of writing seems to have been written as a practical instruction is Pictorius's (1747) recipe for a flour paste size layer:

Take very thin warm size in a dish, put one spoon of wheat flour in it and stir it well. Then take a clean piece of cloth, and plunge it into the size, and wet the well stretched canvas with this. Place the canvas near a heat source so it dries a little, and when it has dried a little, flatten it on something, especially remove the knots from it and let it dry completely.<sup>52</sup>

Indeed the context of the recipe, being an eighteenth century treatise that consists of practical instructions for oil painting, supports this view.

The wording of this text stands in contrast to that used by Van Mander (1604) in a passage that has a much more descriptive character:

Our modern ancestors before used to whiten their panels more thickly / and scraped them as smooth as they could / also used cartons / they applied to this even beautiful white / and sat down to trace them with some material that rubbed off. Then they drew on neatly with black chalks or pencils.<sup>53</sup>

It is known that Van Mander wrote the *Schilderboeck* for a general audience, not just for painters.<sup>54</sup> Yet, the fact that that we have evidence that seventeenth and eighteenth century painters possessed a copy, demonstrates that it was influential also in artists' studios.

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<sup>52</sup> Pictorius 1747: 355.

<sup>53</sup> Van Mander 1604: 47v.

<sup>54</sup> See Appendix 2.

These seem very clear examples of texts of a different nature. However, a conclusion about the practical value of a recipe is not always as straightforward. One complicating factor that has only been discussed in passing is the problem of copying and translating.

## 2.6 Copies, repetitions, translations and later editions

Manuscripts as well as published sources may have actually been produced as copies. Alternatively, the information they contain may have been reproduced by later sources. This complicates the question of the relation between written texts and contemporary practice. If a recipe is reproduced two centuries after it was originally written, should the later edition still be considered a primary source or should it be discarded as having no relationship to contemporary painting practice? Instinctively, one may decide that the later recipe does not have any practical value. In some cases this seems a safe starting point, for instance when evaluating Merrifield or Eastlake's nineteenth century transcriptions of recipes from seventeenth century recipes. Both sources are clearly published to inform the readers about historical painting techniques.<sup>55</sup>

However at other times the question of relevance may be more problematic. Clarke (2008) shows through comparison of small changes in different editions of medieval manuscripts, that in some cases reworked copies had a direct relationship to paint practice contemporary to their appearance.<sup>56</sup> A careful approach is required. Pictorius's 'practical instruction', which is quoted in Paragraph 2.5, appeared in a 1747 translation of a 1713 German source. The 1713 German source in turn relied heavily on the 1546 book by Boltz von Ruffach for its recipes on illumination. Whether the recipe quoted from Pictorius is 'an original' is not known; no direct source has been found. The fact that Pictorius copied liberally in other areas may be considered a sign that we should be careful to interpret the 1747 recipe as a text that relates directly to artists practices around 1750.

Within the present recipe dataset, repetitions, translations and later editions are far from uncommon. An extreme example is provided by one particular recipe for canvas preparation which can be traced back to 1676. The is repeated frequently, therefore the conclusion that it had a widespread influence is tempting. However was the recipe written to support a theoretical viewpoint or as a recipe for daily use by artists? Appendix 14 provides an overview of the manuals which (re)produced this recipe and compares the exact wording in crucial passages of the recipe. It shows how large parts of the original 1676 text appeared at least until 1831, the year of the most recent rendering discovered to date.

The earliest appearances of the recipe were in books with a link to French Academic painting theory and practice. Later copies of the recipe appeared mainly in compilations aimed at amateurs, who copied liberally from earlier sources in other sections as well. This can be taken as a sign that the recipe lost practical application. Whether by the time of writing of Vergnaud (1831), painters were inclined to prepare their canvas with a double ground consisting of red earth and covered with a mixture of lead white and charcoal black is doubtful, considering contemporary painting practice. However, knowing that

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<sup>55</sup> The commentaries on historical sources that was added by Merrifield and by Eastlake can be considered a primary source, as both authors discussed contemporary painting methods.

<sup>56</sup> Clarke 2012: 27-31.

similar double grounds were encountered well into the eighteenth century, it is difficult to decide on the date when this recipe can no longer be read as a source on contemporary painting technique. The fact that the original 1676 book by Félibien was owned by painter Robert Duval (Table 2.1) and auctioned in 1732, is a sign that matters may not be straightforward.

Should we decide that every seventeenth century recipe that is repeated in a nineteenth century source cannot possibly have been used by nineteenth-century painters? This would not be wise. It seems more prudent to assume that no certainty can be given about the question whether a nineteenth century reader executed a seventeenth century recipe. Chapter 5 will demonstrate that the period 1550-1900 witnessed several eras that can be marked by a raised interest in the art (and techniques) of earlier epochs. It is not unlikely that such interest extended itself to the use of historical painting techniques. In fact, research has shown that the desire as well as the knowledge required to imitate historical methods were available during the nineteenth century. As was discussed earlier, during the nineteenth century the interest in Medieval and Renaissance painting techniques resulted in the publication of Medieval and Renaissance texts on painting techniques.<sup>57</sup> Research on the painting techniques of the Pre-Raphaelites by Townsend et al. (2004) demonstrates that these artists to a certain extent emulated Medieval painting methods.<sup>58</sup> The group of recipes referred to in Appendix 14, supported its claims about the soundness of aqueous preparatory layers with their supposed use by Titian and Veronese. This shows that even in the eighteenth century former artists' methods were assigned a practical value.

## 2.7 Concluding remarks

In this chapter, the size and contents of the recipe database as a whole and the character of the sources were examined. This examination led to several observations that are important for the interpretation of individual recipes. Attention needs to be given to the context of a recipe, which can be examined by investigating its author and the context within the recipe book, while the level of information and the wording of the recipe itself also provides information about its role. The fact that the scope of the recipe collection allows for individual recipes to be placed in the context of contemporary recipes or to be compared with earlier or later recipes, is particularly helpful in the case of translations and later editions.

Particularly relevant for the present research is the fact that recipe books appear amongst the possessions of professional artists, at least according to seventeenth and eighteenth century book auction catalogues and nineteenth century British sources examined by Carlyle. The types of books found in such collections range from art theoretical treatises that include information on preparatory layers to encyclopedias and dictionaries. Also 'books of secrets' are found in artists' libraries. From this the conclusion is drawn that this investigation of historical recipes for preparatory layers should also consider recipes that appear inside sources directed at the general public. A comparison of these recipes with recipes inside artist- or specialist-written manuals will reveal whether recipes from

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<sup>57</sup> For instance Eastlake 1847 (reprint 1960); Merrifield 1849 (reprint 1999)

<sup>58</sup> Townsend et al. 2004.

sources written for the general public indeed follow trends discussed in more specialized manuals.