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CONSTE DES VERVERS: A FLEMISH DYEING MANUSCRIPT FROM LEUVEN, 1619-1623

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SCIENTIFIC PAPER

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Abstract

A largely unknown manuscript of dyeing recipes kept in the Archives of Leuven was studied. Fibers to be dyed were wool, silk, linen – and feathers. The dyestuffs used were evidently the common base materials of the dyer: madder, brazilwood, logwood, weld, fustic; cochineal, rarely indigo and kermes are high quality dyestuffs used sparingly. Safflower and *Purper*, which apparently refers to archil, are lower quality dyestuffs used. The poorly known term *follegreyn* – the dye obtained by dissolving dyed wool clippings - is used in nine recipes. Stockings are the textile structure dyed in 40 % of the recipes.

1 Introduction

For workers in heritage science, a good knowledge of the dyestuffs used in the works under their care can be of great importance. Information on the manner these dyes were applied, and the presence of additional materials originating from the dyeing recipes used, can be obtained using a number of analytical techniques, but also from historical texts with dyeing formulas. A number of collections of such dyeing recipes, both manuscript and printed works, are known from several European linguistic areas. Recently, two unpublished manuscripts have been published^{1, 2}. Another manuscript, in Flemish and as yet practically unknown, is here brought to the attention of an international readership.

The Archives of the town of Leuven (Brabant, Belgium) keep a manuscript, cat.7133, entitled *Conste des ververs* (Art of the Dyer), written between 1619 and 1623 by Henrick Coghen, a dyer who lived and worked in Leuven. Transcriptions of some 24 recipes were published³, and it was then indicated that this publication was to be continued, but this never happened. To the best of our knowledge, cited paper has been referred to only once⁴. The rest of the manuscript has remained unpublished. The present paper does not contain a publication of the MS, but is merely intended to introduce the existence and the main lines of the complete MS to an international readership. Therefore, references to recipes in the original text are kept to a minimum here. Recipe numbers, given as "Rec. n", refer to a numbering introduced by the present author; they are already used here to allow cross-referencing after publication of the complete MS.

The following abbreviations will be used throughout this paper; F: French. Rec(s.): recipe(s).

2 The Manuscript

2.1 The Dates

Dates are given at several places in the MS, sometimes precise to the day. The "frontispiece" and its analogue at the end of the book are dated 1620. The largest part of the MS was written between 1619 and 1623; mainly in 1619 (Recs. 25-164) and 1620 (Recs. 1-24). The youngest date given by

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Coghen is February 14, 1623 (Rec. 167). The recipes written in 1620 and 1623 in the book now partially precede those written in 1619.

2.2 The Writer

By now and then adding the specification "Disthensis" to his name, Henricus Coghen, the writer of this manuscript, indicates to originate from the nearby Brabant town of Diest, some 24 km NE of Leuven. This Henrick Coghen (Diest 1598 - Leuven 1661) was one of about ten persons of the same name (often father and son) in a family living mainly in Diest from the 14th-17th century, but the only one who moved to Leuven.⁵

Henric Coghen must have been fairly well educated: on most pages of the MS his handwriting is quite elegant; there are some expressions in Latin in his text, and sometimes he spelled his name as *Henricus*. But in spite of this (presumed) education, his writing skills often leave much to be desired. Several of his recipes (if he indeed composed them, and did not merely copy them from other sources) are not very clear, or can be interpreted in more than one way (especially because of the absence of punctuation); a few are even completely unintelligible. Furthermore the spelling he used for many foreign words is very inconsistent: see the different spellings used for the dyestuff names.

3 The Text

3.1 The Manuscript

The MS now has 65 pages, 200 x 157 mm, a few pages have been torn out. It consists of nine quires bound together in a book in an order not necessarily that of their writing. This may explain the lack of chronology in the text parts. The main text is written in *littera cursiva*, a handwriting often used in the 16th and 17th century.

3.2 The Language

The MS originated in Brabant, part of the then Southern Netherlands (the Low Countries). Its language is Flemish with a Brabant character. Standard Dutch was still in full development, and only imposed itself after the fall of Antwerp (1585) when the political, economic and cultural center moved to the north, and as such it was a mainly Northern-Netherlands affair. But the different dialects were influencing each other. In the language of the MS we find both Flemish and Brabant dialect characteristics. Examples: 1) The palatized a before r + consonant: *swert* (Rec. 17); 2) *Umlaut*-forms of oe: *rueren*, *spultse*, *suede*; *keersruet*; 3) o in stead of the u: *dobbel* (Rec. 55), *vollen* (Rec. 113); 4) shortened forms: *nempt* (Rec. 42), *geseft*; bisyllabic forms: *syen* (Rec. 76) side by side with *sien*, *dyen* together with *dien*.

There are many dittographies of identical words, parts of sentences and even whole sentences. Examples: *in doen dan uw werck daer in* (Rec. 129); *dan alst gesoden is dan* (Rec. 62). Sometimes the copist forgets a line (cfr. Rec. 127 versus 107) or a word: *en isse niet sterck genoech soo salmense een stuck pottaschen [geven]* (Rec. 76). He is rather careless and makes

many mistakes (*ghier*= *ghiet*, *dier*=*diet* (Rec. 10); *school*=*schoon*). The spelling is phonetical and often corruptions of foreign words occur, e.g. *fillenoert* (Rec. 33), *foellemoort* (Rec. 69), cfr. the list of dyestuffs (5.1.).

4 The Contents of the Text

4.1 Fibers and Textiles Used

The textiles dyed by Coghen are not always clearly indicated, and neither are the fibers of which these textiles were made. Obviously, the textile fibers used belong to the natural fibers: the plant fibers (cellulose) and those from animal origin (protein). Dyeing these two groups of fibers generally requires different treatments. The protein fibers can be dyed rather easily, after mordanting (mostly with alum); cellulosic fibers are usually given an extra mordanting with tannins⁶, but this is not the case in this MS.

4.2 Textile Fibres to be Dyed

The Coghen MS contains dyeing recipes for *laecken*, *laken* (cloth); *lijwaet* / *lywaet* (linen); *side*, *syde* (silk); *frouweel* or *frouweel* (velvet); *lint* (silk? ribbon); *cattoen* (cotton) is cited only once (Rec. 54), but that may well be erroneous, since silk is mentioned at two other places in the same recipe. Another material dyed by Coghen is *pluymen* (feathers), mentioned in 15 recipes; they can be dyed in the same way as the protein fibers wool and silk. *Saeytte* (Rec. 86): corrupt for *sayette*; *sayettegaren*: wool yarn made for weaving *saey* cloth.⁷ *Scheerhaer*, *scheerhair* (shearings) and *snipelinck* (Rec. 64): (clippings) do not designate a textile structure but the loose fibre material obtained by shearing fulling wool textile. This material was used for recuperating the (sometimes expensive) dyestuff in it, or as a form of purification before preparing a pigment (see also under *follegreyn*). *Wolle* (wool) is always indicated by its weight, and refers to loose wool or to yarn.

4.3 The Textile Structures to be Dyed

Coghen is rather careless in indicating the type of textile structure he had to dye. *Bombesyn* (Rec. 62): *bumbasin* is a mixed weaving with different yarn fibers in warp and weft, but changing according to period and geography.⁸ *Frouweel*, *fluweel*: velvet (Rec. 15). Also *floers*, corrupt for *F velours*, has the same meaning⁹ but is not used as such by Coghen. *Laken* (Rec. 60'), *laeken* (Rec. 72), *laecken* (Rec. 115): broadcloth, but there were many different qualities of cloth! *Laecken* and *coussen* are sometimes cited in the same recipe: this might imply that both were made from the same fibre (Rec. 83'), most probably wool. *Lijwaet* (Rec. 1), *lywaet* (Rec. 21) refers to linen, probably in the woven form. *Garen*, literally yarn, is a term often used for linen, probably not yet woven; but there are combinations such as *Lijwaet oft garen* (Rec. 3). Also, *lijwaet* can be dyed in the form of *garen oft laecken* (Rec. 100): as yarn or woven. *Lint* (Rec. 132): ribbon, most probably consisting of silk. *Saeytte* (Rec. 86), a corrupt spelling of *sayette*; *saye* is a variety of wool cloth¹⁰; *sayette* may have a similar meaning.

The textile structure most often mentioned in Coghen's recipes is *caussen*, *coussen* (stockings,

socks, hosiery), in 66 recipes (39,3% of all recipes); but the nature of the fiber is never clearly mentioned. Rec. 86 mentions *syde en saeytte*, and *caussen* further on: this may imply that the stockings were either of silk or wool.

The Coghen MS may well be the oldest of the few collections of dyeing recipes that clearly concentrate on stockings; a contemporary text mentioning stockings is the Haarlem MS.¹¹ The 24 recipes included in *Secrets concernant les Arts et Métiers*,¹² are claimed to be the first in such detail on the different colouring for stockings. Seven other recipes are given in *De volmaakte verwer*.¹³

The exact nature of the textiles, and the fibres used for the stockings are not often mentioned in the MS, and might have changed with time and fashion. A few times the recipe mentions *laeken of coussen* (Rec. 83'), which may suggest the stocking were in wool. Based on the history of the production of stockings¹⁴ it can be concluded that in the 1620's in Leuven the stockings were mainly hand-knitted (wool, linen, silk?) with possibly still some tailored from cut woven pieces of wool or linen. This must have determined their weight, an important factor in dyeing.

Werck (Rec. 8) is a general indicator meaning something like "work to be done", so here: "textile to be dyed", and may refer to any of the terms cited above.

5 Dyeing

5.1 The Dyestuffs Mentioned

In the order of diminishing importance, the dyes used by Coghen belong to three dye classes:

Mordant dyes: Most natural dyes belong to this class: the fiber needs to be treated with a mordant, generally a metal compound (very often alum), in order to be able to accept the dye and form a stable coloured complex. The MS has 121 mordant dyeing recipes.

Direct dyes: Can be taken up by the untreated fiber, without much additional treatments or material. This MS contains 23 recipes for direct dyeing; a few of the dyes used are not well known, or the MS uses for them Dutch names that are poorly known or that may be mere corrupt spellings: *purper*, *samfloer*, *laeckmoes* (Rec. 27). Also *follegreyn* is used as a direct dye (Recs. 128, 138).

Vat dyes: Vat dyes are insoluble in water and can only be used for dyeing after having been made water-soluble by reduction: a chemical reaction by which the insoluble dye becomes almost colorless also. This reduced form then penetrates the textile fiber in the dyebath, and when the textile is taken out of the bath, the coloured insoluble dye is formed again in the fibre, under the action of the oxygen in the air: the textile is dyed. Natural vat dye sources used in the period of the MS are the woad plant, *Isatis tinctoria*, from Europe, and a number of tropical indigo-plants, but both produce the same blue indigotin dye. Although in the 17th century Europe the local woad plant was still much used, the Coghen MS has not a single recipe for a woad vat. In spite of the importance of blue dyeing, the three vat dyeing recipes form only a minor part (2,9 %) of the total number of recipes in the Coghen MS.

Likewise the – one century older – Flemish *Boeck van Wondre*¹⁵ has only three vat dye recipes on a total of 59 (5,1 %). A collection of 66 dyeing recipes from Valencia (1496-1501) contains not a single vat dyeing¹, and the Swiss *Farbbüechlin*² (about 1600) has in 137 dyeing recipes only one clear recipe of an indigo reduction vat.

The commonly used dyestuffs of the period are mentioned by Coghen under a variety of spellings: *Bresille* (Rec. 1), *bresillehaut* (Rec. 121), *briselle* (Rec. 6), *brisille* (Rec. 21): wood of the redwood trees of *Caesalpinia* species. *Coetzenille* (Rec. 44'), *coetzenelle* (Rec. 45'), *consinille* (Rec. 22"), *coessemelle* (Rec. 10"), *coxonillij* (Rec. 119): the dried females of the scale insect *Dactylopius coccus*, originally from Central and South America. *Fenegreck* (Rec. 45'), *venegricum* (Rec. 156): seeds of *Trigonella fenum-graecum*. *Faseet* (Rec. 13), *fecet* (Rec. 112), *feset houdt* (Rec. 8): fiset wood, fustic ("young" or "old" is not specified). *Greyn* (Rec. 87'), *gryn* (Rec. 156'): Dutch for kermes, the dried female *Kermes vermilio* insect living in areas around the Mediterranean Sea, and one of the most expensive dyes in the Middle Ages. *Mekeyn* (Rec. 156'), *meckeyn* (Rec. 118), *mekeyne* (Rec. 72'): *makijn*, the rhizome of the tropical *Curcuma longa*. *Meeccrap* (Rec. 81), *mee* (Rec. 126), *crappe* (Rec. 72), *mee crappen* (Rec. 160), *meeccrappe* (Rec. 2), *croppen* (Rec. 150'): the root of madder, *Rubia tinctorum*. *Smack* (Rec. 89): sumac, *Rhus coriaria*. *Sofferaen*: saffron (Rec. 132'), the pistils of *Crocus sativus*. *Wau* (Rec. 92), *wauwe* (Rec. 9), *wou* (Rec. 158), *wouwe* (Rec. 164): weld, *Reseda luteola*.

But some dyestuffs are given under names that are rather unusual, or rarely mentioned in the literature: *Amilie* (Rec. 64), *annille* (Rec. 93) may well refer to indigo (*anil*). But in Rec. 93 both *indego* and *annille* are mentioned: (transl.) "add half a pound of finely pestled *indego*, the same amount of *annille* and that finely broken": therefore *indego* and *annille* cannot be understood as synonyms, but must refer to different products. Possibly these terms may refer to different qualities of indigotin sources, obtained e.g. from exotic sources. In Leiden in 1631, *anil* was forbidden; from which De Nie concluded that *anil* and indigo are indeed two different products: *anil* may well have been of a very impure quality, possibly imported from *Barbarije*, containing important amounts of plant material, similar to prepared woad¹⁶. A century later, an extensive discussion of the subject was still needed for concluding that *anil* is the name of the plant(s) from which indigo was prepared¹⁷.

Arca (Rec. 73): may refer to *arcanum corallinum*: "the red precipitate of mercury or quicksilver, on which well-rectified spirit of wine has been six times burnt"¹⁸: this must refer to a red oxide of mercury. *Flaus* (Rec. 59) is used for dyeing silk *incarnadyn* by a procedure of washing, dissolving and precipitating, very similar to safflower dyeing. Therefore, *flaus* is here understood as synonym of safflower. Indeed, *flous* = small flower¹⁹; F Provençal *flous*, *flour* = flower²⁰: this can apply to the dried flower petals of the safflower plant.

Follegreyn (Rec. 47), *folle greyn* (Rec. 138), *fillegreyn* (Rec. 140): this rare term is used in a one-century older MS; its meaning was unknown to Braekman who supposed it to be (of) "a purple colour".²¹ The procedure of the Coghen Rec. 71 agrees with rec. 20 of cited MS, but the quantities are somewhat different. Mentioned as

follegram sopp in the Dutch edition of the 1544 "Carolina" edict by Charles V²², regulating the production of tapestries in Flanders; and as *couleur de foule graine* in its French edition.²³ *Follegrein* is the recuperation of (expensive) dyestuff from red wool shearings by dissolving the fibers in hot lye. Coghen Rec. 64 does not use the word *follegrein*, but *snipelinck* which must correspond to *snippeling*²⁴, *vlokken*, shearings. Corresponds to F *bain de la bourre fondue*.²⁵

Indego (Rec. 93), *innego(e)* (Rec. 76) and *inneblau* (Rec. 76) are clearly corrupt spellings for indigo, a product rarely used by Coghen; but that dyestuff (or woad ?) is implicitly referred to when the blue vat (*cuype*) is mentioned: *blau cuype* (Rec. 12), *innego cuype* and *weet cuype* (Rec. 76).

Ireas (Rec. 44): the Iris plant²⁶, possibly the roots²⁷ or the leaves²⁸; but the blue flowers can be used for dyeing leather²⁹. Crushing blue Iris petals with alum gives *vert d'iris*; but why use green to obtain *roeyt* (= red) with cochineal, *mackijn* and galls ?

Laeckmoes is cited only once (Rec. 27): literally, litmus. In Leyden it was prepared from *oorsel die uut Canariën compt*³⁰ (archil, orseille from the Canaries), but the distinction from archil, *porper* (Rec. 98), *foli*³¹, *full*³² is not very clear from the descriptions given by different sources.

Maelderoy (Rec. 87): if this is a Flemish word, it can be taken to consist of two parts: *mael* from milling, and *roey* = red. So, it could mean a red powder obtained by milling or grinding, or used for such purposes. It was used to dilute (*breken*) pestled cochineal. But could it be a corrupt writing of *maestrecht* as used in *pure cochenille, maestrek*³³; *pure cochenille maestrecht*³⁴; or in *cochenille, maestreck & eau forte*³⁵. These French words might be corrupt for the name of the Dutch town Maastricht (if there is any relation?); or for *mestèque*, the name for a common quality of cochineal. Indeed, in 1738, corresponding texts are given as "*pure cochenille-mestèque*" for dyeing *écarlate ordinaire* and *cramoisies*³⁶, and in 1752 the above cited part from the Colbert texts on *rouges & écarlates cramoisies* is copied as "*pure cochenille mestèque*"; however, the corresponding chapter on *L'écarlate incarnate cramoisie* still has "*avec cochenille, maestrek, ...*".³⁷

Rec. 156', very similar to Rec. 87', have *marseco* instead of *maelderoy*; and Rec. 73 has *mastico*: probably corrupt for *massicot* or *masticot* (Rec. 57), a historically rather confuse group of yellow lead/tin oxide-based pigments.³⁸

Oogmilie consinille (Rec. 22"): Corrupt for some form of *cochineal* ? Possibly cochineal qualities were named *comales* and *temascales* (after the way the cochineal insects were killed)³⁹; and *comales, temascales, granilla* or *comuyen*⁴⁰ may have been corrupted to *oogmilie* ? A different explanation for *oogmilie* might be: corrupt for *oogniet*, also called *tutia*, which was obtained from copper-melting ovens⁴¹; also called *kleimeij*⁴² = zinc carbonate.⁴³

Purper, porper (Rec. 98), *poerper* (Rec. 162): a substantive; not the adjective for a colour. The preparation of the bath for dyeing *peers* from solid *porper* is described (Rec. 98); the textile does not need to be alumed, consequently it is used as a direct dye. Also

Recs. 36 =162 and Rec. 14 do not mention alum. Although not clearly mentioned as such, this dyestuff is here interpreted as the dyestuff archil: lichen treated for a long time in fermented urine, used for dyeing "false" purple. Preparation not given in this MS.

Dyeing with *santvloer* (Rec. 132) describes the same steps as dyeing with safflower, *Carthamus tinctorius* (*saffloer*, wild saffron, or bastard saffron), involving the washing out of the yellow dye, then alkaline dissolution and acid precipitation of the red dye on the fiber to be dyed. *Santvloer* is here considered a phonetic spelling for *samfloer*. The latter word (not in Coghen) is used in both editions of the - one century older - *Tbouck van Wondre*⁴⁴; it is not interpreted nor explained by Frencken⁴⁵, and is not recognized as related to *saffloer* by Braekman⁴⁶ who thinks *samfloer* is: (transl.) "a kind of substance, a mineral (?) for dyeing red". Also the name *vloers* (corrupt for *floers*) is used (Rec. 132) (but cfr. 4.3 !), it is an old name for safflower: (F) *saffran sauvage, ou bastard, dit Floers*⁴⁷.

Selleter (Rec. 66): probably not *selder* = celery: the name of that plant (in Amsterdam, 1711) was *sellery*.⁴⁸ *Selleter* may well be a corrupt spelling for "*selpeter*" (= salpeter) but no similar recipes using salpeter are known to us. But it may be corrupt for *essellete*, old F for "wood splinters, shavings"⁴⁹, so possibly: rasped dyewood.

Swert sop (Rec. 31): probably the liquid for black, prepared in the *schorstonne*, as described in the "large MS" (1614-1628) partly published by De Nie.⁵⁰

5.2 The Recipes

5.2.1 Source of the Recipes

Own experience.

Clearly, many of the recipes are based on Coghen's own experience in the dyehouse where he worked: he mentions *ons tonneken* (Rec. 84): our small kettle; *ons swert sop* (Rec. 151): our black dyebath. He also mentions some recipes "according to Coghen": *Die verwe opdie manier van Coghen* (Rec. 150). Some recipes he tested himself: *Geproeft ende wel mede bevonden* (Rec. 119): tested and found well; *Probatum et [=est?] per domine Domine [sic] henricum Coghen* (Rec. 154').

From external source.

However, there are strong indications that at least parts of the book were copied from external source(s). 29 recipes occur two or even three times; thus yielding 32 copies, and leaving a number of 136 different recipes.

Also, there is a clear reference to "the book" in an incomplete recipe (Rec. 42' and its copy 167): *dit is al dat in den boeck was* (this is all that was in the book). Clearly, Coghen is here referring to a book he used as a source for copying; the identity of that source book has not yet been established.

Most (121) dyeing methods given in the book are about mordant dyes. The first step is the *sueden* (literally: boiling, but here meaning: mordanting), mostly with *aluyn* (alum), often combined with *wynsteen* (cream of tartar); then follows the dyeing itself (*uutmaecken*,

sometimes mentioned as *syn coluer geven*: to give its colour) when the dyestuff is being fixed onto the mordanted textile; and often a last step (*schouwen*) follows: an aftertreatment for obtaining the final colour shade. The same terminology was also used in the Northern Netherlands in the same period, e. g. in Leyden⁵¹. These terms in the MS may well have been copied from a Northern-Netherlands text.

The recipes given by Coghen are of different quality: some are very clear; others are somewhat confusing or allow different interpretations of the text, possibly because of the lack of punctuation; and some are very unclear or even unintelligible. There are also a few "shorthand" recipes.

5.2.2 Scale of the Dyeing Operations

Coghen's recipes generally indicate the dyeing of only a small number (1 to 40) of pairs of stockings, showing the non-industrial scale of their production, or at least of the commercialisation of the finished stockings. Compare the 100 or 200 pairs dyed in recipes of 1836⁵².

Also the dyeing of the other materials is indicated for only rather small quantities of textile. But often the recipe indicates (e. g. Rec. 22) "for one pound of (material) take". Such recipes are simply expressed in units of weight or number, are easily upscaled to any number of stockings, and do not give the real scale of the dyeing. Recipes for dyeing feathers work by the number of feathers.

The largest amounts of textile clearly indicated in a recipe are: 30 pound (= 13,38 kg) of silk (Rec. 54); 40 *ellen* of *laeken* (27,2 m for the *elle* of Leuven⁵³) in Rec. 72, and 40 pairs of stockings (Rec. 89) that might weigh 200 ounce = about 6 kg, for men's stockings⁵⁴. Indications like "43 *werck*" (Rec. 129) that would normally be read as "43" are here interpreted as "4.5"⁵⁵; this is confirmed by the almost identical copy (Rec. 8).

6 Colour Shades Dyed

Following colour shades are mentioned in the recipes: *Aersenty* (Rec. 68), *arsenty* (Rec. 28), *arsienty* (Rec. 28): silver grey (*aersenty*⁵⁶ = F gris argenté). *Assgrau* (Rec. 31): ash grey. *Blau* (Rec. 7): blue. *Callombien* (Rec. 52): corrupt for F *colombin*.⁵⁷ *Carmosyne*: the red shade obtained with cochineal on alum mordant. *Fillenoert* (Rec. 33), *foellemoort* (Rec. 69), *foeyllemoort* (Rec. 125), *fillemoort*, *fillemoert*: corrupt for fawn, F *feuille morte*⁵⁸. *Gheel* (Rec. 8): yellow. *Goudt gheel* (Rec. 8): gold yellow. *Grau*: grey. *Groen*, *gruen*: green. *Incarnaet* (Rec. 51), *incarnate* (Rec. 120pars), *incarnadyn* (Rec. 59) rose⁵⁹. *Lavende[l]* (Rec. 70): lavender. *Lyfverve* (Rec. 60): colour of the human skin, but Nicot gives both F *teinte de pourpre* and *incarnate* for it.⁶⁰ But the Coghen text uses "*incarnate en lyfverve*" (Recs. 79, 79', 119), apparently as distinct shades. *Orense*: orange. *Peers*: a shade more blueish than *purper* (Rec. 114), obtained from logwood and Spanish green (Rec. 116). *Purper*: Shade obtained with the dyestuff *purper* (Rec. 14), or by treating a brasilwood dyeing in potash lye (Rec. 6). *Roes* (Rec. 77), cfr. *ros* = *fuchsrot* G⁶¹, but cited recipe states it yields black! *Roeset* (Rec. 141), *rooset* (Rec. 35): not rose, but a shade obtained by

overdyeing brasil red with logwood (Recs. 34, 34', 35) and aftertreating in lye; or by adding *purper* dyestuff and spanish green to a *kermosyn* bath (Rec. 141). Cfr. English *rosett* = russet (in 1554).⁶² *Roowans/roowaus* (Rec. 72'): orange shade, obtained by dyeing alumed *laecken* yellow with weld and urine, and then adding madder and *makijn*. Cfr. *rootvaens*.⁶³ *Terneyt* (Rec. 146): corrupt for F *tané*.⁶⁴ *Violet*: mainly based on logwood and Spanish green. *Swaert* (Rec. 15), *swert* (Rec. 17): black. *Dobbel swert* (Rec. 95): For distinction between *swert* and *dobbel swert*: see Denie.⁶⁵

7 Products, Other than Dyestuffs, Used in the Dyebaths

Alluyn: alum. *Arrenu* (Rec. 56) in the context: 2 *oncen arrenu gom blank*: corrupt for *arrabie* ? so probably Arabic gum?, but *arrenie*, *arranie* =orange⁶⁶. *Arsenicum* (Rec. 94), *arkenicum* (Rec. 156'), *arsenicom* (Rec. 60'): *rattencruyt*, As₂O₃. *Asse*: ash obtained from different sources: *weedas* (woad ash), *haut as* (wood ash), *potas* (potash). *Asijn*: (Rec. 96) vinegar. *Aureum pigmentum* (Rec. 24): a mineral yellow pigment, probably orpiment; but *aureum sublimatrum*? *Biercken*: (Rec. 22"), *Bierken* (Rec. 22): sour water; cfr. *biertje* in Leiden in the 1630's.⁶⁷ *Coolen*, *colen*: the insoluble parts of the (pot)ash: they were floating in the bath: *raept die colen bouen af van die pottaschen* (Rec. 128). *Coperoos*: from F *couperose*: iron sulphate. *Gallen*: galls. *Meel*: flour; several qualities are mentioned: *Blom* = flour. *Boekweijt meel* = buckwheat flour. *Arentmeel* (Rec. 55): ?; it was, together with the following, for sale at the *huyvetters* (at the leatherdresser's⁶⁸). *Scormeel*, *scorsmeel* (Rec. 55): *schorsmeel*, milled bast of oak or alder⁶⁹. *Ommeldonck* (Rec. 23): cfr *ameldonc*⁷⁰ (F *amidon*), starch. *Pisse*: urine (Rec. 8). *Quicsiluere* (Rec 132'): mercury; curiously, this is used with saffron: ? *Regal* (Rec. 22), *regael* (Rec. 22"): *ratte-kruyd*, arsenic.⁷¹ May be corrupt for F *reagal*⁷², *realgar* (As₂S₃) or auripigment / orpiment (As₂S₃), both poisonous arsensulfides⁷³. *Schuym van gaudt* (Rec. 7): cfr German *goldschum*: *spuma argenti* = *lithargirum auri*, yellow lead oxide, a mineral pigment (Oltrogge, pers. comm.). *Score* (Rec. 89), *schoors* (Rec. 101): bast of alder, oak or walnut tree. *Semelwater* (Rec. 132): bran fermented in water. *Seroop* (Rec. 102): syrup. *Snipelinck* (Rec. 64): cfr. *snippeling*, *snipper*: a small piece of something that has been cut off, like paper, wood, cloth⁷⁴: here probably used as synonym of *vlocken*, *scheersel*, etc. *Soet* (Rec. 125): soot out of the chimney. *Spaense Sop*, *seep(e)* (Rec. 65), *seip* (Rec. 96): Spanish soap (Rec. 54). *Stelle piss*e (Rec. 8): stale urine. *Suer sop* (Rec. 120pars), *suere water* (Rec. 60): sour water, bath obtained by fermentation of *semelen* or *meel*, etc. for a specified time. *Vilse room* (Rec. 87): *aluyn*, *te weten vilse room*: as a specification of alum, possibly from F *vil* = of low value, but normally *roomsen aluyn* (Rec. 70) was of good quality. *Vijlsel* (Rec. 78): (iron) filings. *Wijnsteen* : cream of tartar.

8 Quality of the Dyeings

A clear and strict distinction between different qualities of dyeings was officially issued in France in 1669 by Colbert, and published as a book in 1671 (by Albo ?)⁷⁵. It made the distinction between the *Teinturiers en Bon et Grand Teint* and *Teinturiers en Petit Teint*, and

explained which dyestuffs were to be used by these categories. In Utrecht in 1581, a similar distinction was in use between dyers exclusively using either *goede verwe*, or *quade ende valsche verwe*.⁷⁶ In the same town in 1572, dyers dyeing cloth in *ligte swarte verwe* (pale black dye: ?) were prohibited to dye any other cloth and any other dye; and to dyers working with *goede verwe* it was forbidden to dye cloth in *lichte swarte verwe*.⁷⁷ Although the exact meaning of this terminology is not clear now, this was completely in the spirit of the separation in the Colbert edict, but a century earlier. The question arises if this was also the case in Leuven in the 1620's.

Several recipes contain a step where the textile is put in a bath and the text states it is coloured immediately (*terstont*) (Rec. 52). Unless only a pH adjustment is involved, it is evident that such a dyeing can only be very superficial, and cannot deserve to be called "Grand Teint", even when *Grand Teint* dyestuffs were used. The same remark applies to recipes that prescribe passing a textile through a dyebath (*door trecken*).

8.1 Dyestuffs Ued by Coghen

Based on the Colbert's classification (issued 50 years later !), the dyestuffs used by Coghen can be listed as:

Allowed for *Grand Teint*, forbidden for *Petit Teint*: woad, indigo, kermes, madder, cochineal, weld, couperose, galls, sumac. Forbidden for *Grand Teint* but allowed for *Petit Teint* for some applications: archil, logwood, brasil. Forbidden for both *Grand Teint* and *Petit Teint*: brazil, logwood, fustet, tournesol, archil, safflower, filings.

For Ash bast, *makijn*, *teinture de bourre*, soot: the status was changed between 1669 and 1738.

It can be concluded that Coghen's dyehouse used dyestuffs typical for *Grand Teint*, but also those for *Petit Teint*, and even dyestuffs later forbidden for both groups of dyers. So, this is not according to the spirit of the later Colbert reglement. With apparently very little indigo dyeing, the Leuven dyehouse must have been more or less specialized in "dyeing at the boil" like, a century earlier (1496) in the Northern Netherlands, the *rootsieders*, the "boilers of red", in contrast to the *blauwers*⁷⁸. It must be concluded that the Coghen dyehouse was at that time still working more or less in the late medieval tradition.

But, on the other hand, real medieval-style recipes, using such products as all kinds of berries, cornflowers, etc., used frequently in recipes of Central-European (German, Swiss⁷⁹) origin, are practically absent in this MS. Clearly, the newer tendencies of using dyestuffs with better properties were already in force in Leuven in the 1620's, just like in Leyden in the 1630's.

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schuym van gaudt.

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