

EXCURSUS TO CHAPTER 9

THE SECOND PERIOD OF THE ENGLISH PENNY IN THE OMMELANDEN (c.1350-c.1500)

9.1 On the fossilisation of the silver equivalence of the old *schild* in the Ommelanden.

In the all-Frisian peace treaty of 1422 ('the reconciliation of Groningen'), the old *schild* was used as a multiple unit of account that came to mean 30 old *vleemse groten*. At that time the old *vleemse grote* had been an antiquated coin since 1364. The silver equivalence of this coin was determined in 1394 by the Groningen town government at 1/10th of a lot of silver (1.37g).¹ This is only a little below the silver equivalence of its final issue in 1364: 1.50g.² Normal wear may account for the small difference. Hence the silver equivalence of an old *schild* in Frisia in 1422 may be set at $30 \times 1.37\text{g} = 41.1\text{g}$. In 1435 the silver equivalence of the old *vleemse grote* was changed in Groningen, probably in order to adapt the law to the ongoing wear of the old coin in circulation. It was set at 1.14g.³ Strangely, this reduction of the legal silver equivalence was not followed in the Ommelanden, as we can deduce from two different pieces of evidence.

1. After the new rule concerning the responsibility for the payment of the kin's share in wergeld, established in 1417/1422, the new wergeld for killing a freeholder under normal conditions had become 60 old *schilden*.⁴ The first recordings of this wergeld in the Ommelanden are found in the treaty between Groningen and Westerkwartier in 1428 and in the 1431 statutes of the Niekerk water board; that is, before the reduction of the legal silver equivalence of the old *vleemse grote* in 1435. After this reduction, either an increase in the wergeld amount (e.g. to 72 old *schilden*⁵) might have been expected, or an old *schild* might have been valued at a few more old *vleemse groten* (e.g. 36⁶). However, in the statutes of the Drie Delfzijlen water board in 1445 and in the treaty of Groningen with Hunsingo and Fivelingo in 1448, the wergeld amounts

¹ Excursus 12.2: 'On the meaning of a lot of silver in Groningen'.

² Van der Wee, *Vlaams-brabantse muntstatistieken*, 44.

³ Excursus 12.2: 'On the meaning of a lot of silver in Groningen'.

⁴ Excursus 1.1: 'On the wergild hypothesis'. The treaty of 1422 has a wergeld of 30 old *schilden* for a rider. Usually the wergeld of a freeholder was twice this amount, thus 60 old *groten*. The treaty itself specifies 80 old *groten*, but this amount is not found in subsequent documents.

⁵ $1.37\text{g}/1.14\text{g} \times 60 = 72.1$.

⁶ $1.37/1.14 \times 30 = 36.1$.

remained unchanged. In both cases, the old *schild* was still reckoned at 30 old *vleemse groten*.⁷

2. The fossilisation of the silver equivalence of an old *schild* at 30 old *vleemse groten* in the Ommelanden also appears from compensations found in the ‘Ommelander Landrecht’, the treaty between Groningen and the Ommelanden districts of Hunsingo and Fivelingo, made in 1448.⁸ This treaty is divided into two books. The first book deals with compensations for wounds; these are expressed in Groningen *payment*. The second book deals with manslaughter; the compensations in this book are expressed in old *schilden* of 30 old *vleemse groten* each.

(a) In Book 1 §1, the treaty defines the mark used in the treaty as the equivalent of 12 *butdraggers*. If these coins decreased in value or ceased to be current, a mark would be paid with $1\frac{1}{2}$ lots of good white silver, weight of Cologne, or equivalent payment. From other sources it is inferred, that ‘a lot of fine silver’ at that time probably had the meaning of 13.7g of pure silver.⁹ It follows that a mark $\approx 1\frac{1}{2} \times 13.7\text{g} = 20.6\text{g}$ of pure silver.

(b) In Book 1 §12, it is stated that the compensation for depriving someone of a finger or thumb is $\frac{1}{4}$ th *wergeld*.

(c) In Book 1 §13, it is stated that the compensation for depriving someone of a phalanx of a finger or thumb will be compensated by 12 marks; that the compensation for depriving someone of two phalanges of a finger or thumb will be 24 marks and that the compensation will not be higher if still more is cut off that finger or thumb.

(d) In Book 2 §1, it is stated that a *wergeld* is 60 old *schilden* of 30 old *vleemsen* each, or equivalent payment.

The rules in (c) are regularly found in Frisian medieval law. Compensations for deprivation of parts of a limb or body are proportional, but they are maximised if the sum of the compensations for parts of a limb or body would otherwise exceed the compensation for the whole limb or body (*i.e.* the *wergeld* in the case of the body).¹⁰ In the present case, the rules imply that depriving someone of three phalanxes of a

⁷ See Appendix I.

⁸ RQ, 315-324.

⁹ Excursus 12.2: ‘On the meaning of a lot of silver in Groningen’.

¹⁰ This principle, although not generally formulated, had already been applied in the *Lex Frisionum*: see Siems, *Studien*, 223, note 13. See also Nauta, *Die altfriesischen allgemeinen Bußtaxen*, 102-158, for example 136-137.

finger or thumb would be compensated with $3 \times 12 = 36$ marks Groningen *payement*, but apparently this amount would exceed the compensation for the deprivation of a whole finger or thumb; that is, $\frac{1}{4}$ th wergeld; see (b). This inconsistency was apparently due to the use of two different systems of money of account: the Groningen marks and the old *schilden*. Obviously the allowed difference ought to be small. Instead of 36 marks Groningen *payement*, the compensation in that case had to be $\frac{1}{4}$ th wergeld. In other words, 36 marks Groningen *payement* was just over $\frac{1}{4}$ th wergeld. It follows that a wergeld was somewhat less than $4 \times 36 = 144$ marks or, in other words, 60 old *schilden* - see (d) - was somewhat less than $144 \times 20.6\text{g} = 2,966\text{g}$ of silver - see (a).

It follows from (d) that the wergeld was $60 \times 30 = 1,800$ old *vleemse groten*. The silver equivalence of 1,800 old *vleemse groten* is $1,800 \times 1.37\text{g} = 2,466\text{g}$ if the old *vleemse grote* is valued at the fossilised silver equivalence of an old *vleemse grote* in the treaty of 1422; this is c.17% below 2,966g or 36 marks. But it is $1,800 \times 1.14\text{g} = 2,052\text{g}$ of silver if the reduction of the silver equivalence of the old *vleemse grote*, as determined in Groningen in 1435, was followed; this would be c.31% below 2,966g. This amount would be hardly more than four times the compensation for a deprivation one stage lower: $4 \times 24 = 96$ marks, at $96 \times 20.6\text{g} = 1,978\text{g}$. The first case is the closest to the 36 marks; hence it is the most likely.

So, we may assume that the wergeld was still based on the antiquated silver equivalence of the old *vleemse grote*; that is, 1.37g.

**THE PERIOD OF THE ‘NEW-FRISIAN’ PENNY
IN GRONINGEN AND DRENTHE
(c.1350-c.1500)**

12.1 On the old *korte grote* in Groningen

The old *korte grote* is mentioned for the first time in the 1362 statutes of the merchants’ guild of Groningen, where 30 old *korte groten* were reckoned at 1 old *schild*.¹ The coin has not been numismatically identified with any certainty, and the term is unknown outside Frisia.²

The name *korte grote* might be the collective noun for such coins as cavaliers of Hainaut, eagles of Brabant and angels of Flanders - in so far as these are equivalent. Kappelhoff identifies the *korte grote* with the cavaliers or eagles.³ In the 1323 treaty of the Upstallisbam, these were valued at 2 English pennies; that is, at c.2.6g of silver. The genuine cavaliers from Hainaut had been out of production since 1312, at which time they had been severely debased to only 2.0g of silver. Clearly then, these debased coins were not what were being referred to in the treaty of 1323⁴. The cavaliers were popular and continued to be imitated in Frisia for at least another half century, so it may well be the imitative Frisian cavaliers rather than the original, antiquated ones that were referred to in the statutes as *korte groten*, if Kappelhoff was indeed on the right track. Their silver content in 1362 is difficult to determine; it might have been anywhere between 2.0g and 1.6g according to numismatic discoveries.⁵ However, in Mid-Frisia the cavaliers were still valued at 2 (imitative?) English pennies in 1377,⁶ so in 1362 a silver equivalence of c.2.0g certainly seems possible. If an old *schild* was then equivalent to c.60g of silver, this would imply a silver:gold ratio of 60g : 4.5g = 13.3 at least, but this ratio seems too high for the time; in France it was about 12 between 1361 and 1364.⁷ Another objection might be that, in the statutes, the *korte grote* is designated as ‘old’ which usually had the meaning of being anti-

¹ OGD1: 514.

² Information kindly supplied by Dr H. Enno van Gelder in 1996.

³ Kappelhoff, *Die Münzen*, 77.

⁴ See Excursus 6.1: ‘On the monetary regulation in the treaty of the Upstallisbam of 1323’.

⁵ A rough estimate, based on information kindly supplied in 1998 by Dr H.W. Jacobi, custodian of the Koninklijk Penningkabinet in Leyden, concerning gross weights of cavaliers, eagles and angels that had been discovered in Friesland.

⁶ Chapter 8, ‘The history of the measure of value’.

⁷ Watson, “Back to Gold”, 25.

quoted and this would rule out the imitative cavalier. However, Kappelhoff's idea should not be rejected out of hand.

There is an alternative. The name *korte grote* has the same meaning as *petit gros*. The *petit gros* was a silver coin struck in Flanders until 1337. This coin has also been called 'double tiers de gros',⁸ 'gans',⁹ and Flemish 'half grote' ('with lion'). The *petit gros*/half grote was initially related to the grote of Flanders that was struck before 1337, by which time its production had ended.¹⁰ The half grote was struck in much larger quantities than the grote itself; it was widely used and it was imitated in Selwerd (near Groningen),¹¹ Cunre¹² and Coevorden.¹³ Its original silver content was c.1.8g.¹⁴ In 1342 the silver equivalence of the Flemish model was c.1.7g;¹⁵ because of wear and tear it would have been somewhat less in 1362. If an old *schild* æ 30 *petit gros*, then its silver equivalence would have been $30 \times c.1.7 = c.51\text{g}$ or $30 \times c.1.6\text{g} = c.48\text{g}$. This would correspond to a silver:gold ratio of about $11\frac{1}{3}$ to $10\frac{2}{3}$; that is, it would match the ratio that was valid in 'Germany' in the 1360s at 10.6.¹⁶

Yet another alternative might be the *vleemse grote*. The old *vleemse grote* was also called *korte grote* by the town government of Groningen in 1394.¹⁷ By then a new Groningen system of money of account had been proclaimed, but why did it receive a second designation? Was the name 'old *vleemse grote*' ambiguous? Could an 'old *vleemse grote*' be mixed up with the various names for a double grote: *vleemse plackel*/old *plackel*/old *vleemse*¹⁸? Indeed it could, but there is a more likely answer. Apparently this appellation was a construction to give the (old) *korte groten* - incorporated in the previous system of account and probably still valid in old documents - a place in the new system. Even decades later we find in documents remarks such as '... *vleemse grote*, 'nowadays' called *korte grote*'.¹⁹ These remarks do suggest that the

⁸ Engel, *Traité*, 1090.

⁹ Van Gelder, "De munten", 123-124.

¹⁰ *Ibidem*, 125.

¹¹ Van der Chijs, *De munten van Friesland, Groningen en Drenthe*, 530-531, pl.XVIII no.2 and no.3; Feith, "Rijder- en leeuwengroten", 151-158.

¹² Grolle, "De Heren", 13-14.

¹³ Van der Chijs, *De munten van Friesland, Groningen en Drenthe*, 596-597; Pl. XXI no's 9-13.

¹⁴ Van Gelder, "De munten", 124.

¹⁵ In 1342 it was valued in Holland at $\frac{15}{16}$ th of a genuine English penny, or 1.7g of silver. See Sassen, "Bijdrage tot de muntgeschiedenis van Holland" (1909), 124): 1 *gans* (= half grote) æ $3\frac{1}{2}$ *p Holl.* æ $3\frac{1}{2} \times 3/8 = 2\frac{1}{16}$ old English (penny) from England. As 1 English penny before 1344 was æ 1.35g of silver, a *gans* must have been equivalent to $2\frac{1}{16} \times 1.35\text{g} = c.1.77\text{g}$. This approximately matches its silver equivalence of a few years before (1334-1337) of only c.1.8g (Van Gelder, "De munten", 124).

¹⁶ Watson, "Back to Gold", 25.

¹⁷ Excursus 12.2: 'On the meaning of a lot of silver in Groningen'.

¹⁸ Van Gelder, "Muntnamen", 92.

¹⁹ GAG STAD: RvR875 (1408); GAG PK: 250 (1412).

old *vleemse grote* was not always considered as a *korte grote*, and this suggestion is enhanced by the fact that, in the 1362 statutes, the *korte groten* are denoted as ‘old’. The term ‘old’ usually refers to antiquated coins, as we have seen. The *petit gros/half grote/gans* was indeed antiquated by 1362. The *vleemse grote/leeuwengrote* was not; its production did not end until 1364. Nevertheless, we should also not rule out the possibility that this is what was being referred to in 1362 as the old *korte grote*. Its silver equivalence in 1362, 1.6g or 1.7g,²⁰ coincides approximately with the silver equivalence of the half *grote* (see above).

All three alternatives are possible. A definite answer cannot be given so far, but I think the second alternative is the most likely. Hence, we cannot be definite about the silver equivalence of the Groningen money unit of account in around 1360, which is when we assume this money came into use.

12.2 On the meaning of a lot of silver in Groningen

Resolutions of the Groningen town government in 1394, 1427/1434 and 1435, and a treaty with the Ommelanden in 1448, all refer to lots of silver in definitions of the silver equivalence of standard coins in Groningen. These definitions, however, are not always clear as far as the fineness of the silver is concerned. We must interpret the formulations as best we can, bearing in mind the general regulation on fineness of silver in Groningen that is found in both the old and new town-books.²¹ The relevant part of the old town-book is dated before c.1390.²² A clause in this part includes the following:

Dat suluer, dat de goltsmede werken, dat sal wesen also gued, dat de marc gheweghens sal beholden XV loet suluers.

[i.e. The silver, that is worked up by the goldsmiths, that has to be so good, that the mark weight will contain XV lot of silver.]

The clause in the new 15th century town-book is identical.

This regulation might imply a general standard for silver in Groningen for purposes of coinage as well, this being 15/16 (= 0.9375). It is the fineness of so-called 15*lodiges* silver, a usual fineness in northern Germany and around the Baltic. Silver of 100% (16/16) fineness was just a theoretical notion in the Middle Ages; it could hardly be attained technically. The expression ‘fine silver’ in this part of Europe usually im-

²⁰ Van der Wee, *Vlaams-brabantse muntstatistieken*, 44: silver equivalence *leeuwengrote* (= *vleemse grote*) until 4-12-1361 1.67g, from 4-12-1361 until 27-9-1362 1.63g (the statutes of the merchants’ guild being dated 30-5-1362).

²¹ Telting, *Stadboek*, 71 (§202); De Rhoer, “Het stadboek”, 161 (Lib. VIII, §34).

²² Gosses, “De bisschop”, 156-157.

plied 15*lodiges* silver,²³ and this is what I have used in this study with regard to Groningen silver too. The definition has the following implications.

1. The first regulation of the money standard in Groningen was formulated in an ordinance of the town government in December 1394. The text of the ordinance in the old town-book of Groningen reads:²⁴

Inden iaer van vier ende tnegentich voer medewinter do vordroghen de borghermester ende raed met der wijsheit van der stad, dat een olt flemesch grote, dat een kort grote geheten is, sal ghelden I sc., ende X guede korte grote sal wesen een Groninger schilt, ende een loet siluers sal wesen tien korte grote, ende hijrnae sal de raed al payment werderen, beyde golt ende syluer, dattet niet quader en werde.

[i.e. In the year of ninety four before midwinter, burgomaster, council and counsellors and the wisdom of the town agreed that 1 old *vleemse grote*, that is designated a *korte grote*, will be valid for 1 shilling, and 10 good *korte groten* will be 1 Groningen *schilt*, and 1 lot of silver will be 10 *korte groten*, and accordingly the council will value all other means of payment, gold or silver, so that it won't get worse.]

The weight of the last genuine old *vleemse groten* struck in Flanders in 1364 was 3.14g, with a pure silver content of 1.50g.²⁵ The interpretation of this clause implies that, in Groningen in 1394, 1 old *vleemse grote* or *korte grote* æ 1/10th lot of silver æ (14.6g x 15/16) : 10 = 1.37g (rounded 1.4g). This is only a little less and is compatible with 30 years of wear and tear.

2. The second regulation regarding the money standard in Groningen was formulated in an undated ordinance of the town government between December 1427 and August 1434. The text of the ordinance, which was an addition to the old town-book,²⁶ runs as follows:

Alle boete ende broke, de in dessen staedboeke by schillingtaele ghescreuen staen, daer salmen voer opnemen ende bitalen, dat si van boete ofte van broke, voer elken schilling ene olde vlemessche placke, off een olt buddragher, off een ianghelaer; ende voer elke marc, de in dessen stadboke ghescreuen staed van boete ofte van broke, salmen gheuen ende bitalen XII olde vlemessche placken,

²³ Jesse, *Der wendische Münzverein*, 51; Sprandel, *Das mittelalterliche Zahlungssystem*, 33.

²⁴ Telting, *Stadboek*, 81 (§227).

²⁵ Van der Wee, *Vlaams-brabantse muntstatistieken*, 44.

²⁶ Telting, *Stadboek*, 16 (Add.9)

of XII olde budragers, off XII ianghelars, off payment, dat daer gued voer is. Ende wes by pennighetale ghescreuen is in desen stadboeke van boete off van broke, daer sullen XII penninghe een schilling van wesen, ende den schillinghe salmen bitalen als vors.is.

[i.e. All compensations and fines, that are quoted in this town-book in shillings, should be taken and paid, be it compensation or fine, for each shilling an old *vleemse placke*, or an old *butdrager*, or a *jangler*; and for each mark, quoted in this town-book regarding compensations or fines, should be given and paid XII old *vleemse placken*, or XII old *butragers*, or XII *jangelers*, or payment as good as that. And what is quoted by pennies in this town-book regarding compensations or fines, there will XII pennies be a shilling and the shilling will be paid as said before.]

The text in the new town-book²⁷ is almost identical; only the last sentence is omitted. The silver equivalence of the new standard money is not defined here and would not be defined until 1448; see 4 below.

3. The third regulation on the money standard in Groningen was formulated in an ordinance of the town government of October 13th, 1435.²⁸

*Wy Borgemester en Raet in Grōningen doen kund allen luden & betugen mit dessen openen brieue. Want somtijt in onse stat wal schelinge vallen, vān den Olden Vleemschen groten, & in toekomenden tijden daervan schelinge mogten vallen; Op dat een Iwelick moge weten woemen Olde Vleemsche Groten, den anderen sullen betalen. Hebben wij Borgemeister en Raed huden op desen dag datum deses briefs, also daervan gesproken & zijn daervan overdragen op onse Raedhuse: Datmen na dessen dage twalf Olde Vleemsche Groten, alsmen de Olde Vleemsche nicht en heft, sal betalen, mit een loot fijns gebranden silvers off payment dat guet is, voer een loot fijn gebranden siluers, in der tijt der betalinge, tot ewige dagen. In Orkonde hebben wij onse Stad Segel an dese brief gehangen. Gegeven in de Jare ons Heren Dusent Veer Hondert vijff en Dertich des Dannedages in St. Calixtus auende, ...*²⁹

[i.e. We, Burgomaster and Council in Groningen send word to all people and confirm by this public letter. As sometimes disputes rise on the Old *Vleemse grote* and disputes may rise thereabout in future; That everyone may know how to pay Old *Vleemse Groten*. We Burgomaster and Council on the day of this

²⁷ De Rhoer, "Het stadboek", 33 (Lib.III, §1).

²⁸ GAG COLLECTIONS: charter RF 1435.14.

²⁹ This text is derived from a copy of the original document in GAG COLLECTIONS: ms. RF in folio 21, 301^v-302 (r.28-13); I found it almost identical to the original.

letter have discussed this matter and have agreed in our Town-hall: That one after today twelve Old *Vleemse Groten*, if one does not have the Old *Vleemse*, will pay, with a lot of fine purified silver, at the time of payment, in eternity. In chartering we have our Town Seal adhered to this letter. Published in the Year of our Lord Thousand Four Hundred five and Thirty, Thursday at St. Calixtus eve, ...)

Although ‘a lot of fine purified silver’ suggests a 100% fineness, it follows from the next case, 4, that this interpretation, even in these wordings, would probably be wrong. Hence it is assumed in this case also that ‘a lot of fine purified silver’ must be understood as a lot 15*lodiges* silver. This implies that, in Groningen in 1435, 1 old *vleemse grote* æ 1/12th lot of fine silver æ (14.6g x 15/16) : 12 = 1.14g of silver.

4. The regulation of the money standard in the new town-book, released in 1446, is like that in 3. It still does not mention the silver content of standard coins representing a shilling Groningen *payment*, as defined between 1427 and 1434, but this silver content *is* mentioned in a similar clause to be found in a treaty between Groningen and the Ommelanden, dated January 14th, 1448.³⁰ The text runs as follows:

Int eerste dat alle bote ende broke, de in Hunsynge ende Fywelinge lande geschien, daer in dessen boke van ghescreuen staet by schyllingetale ofte by marcktale, soe salmen den schilling rekenen voer enen butdrager, ende de marck voer twalef butdragers. Ende of de butdragers innae kommenden tyden verargarden, ofte datse ontset worden, soe salmen de marck betalen myt anderhalf loet guedes wyttes suluers colsche wichte ofte payment, daer vioer te betalen dat daer guet voer is toe Groningen ofte in den lande.

[i.e. First that (for) all compensations and fines, determined in Hunsingo and Fivelingo, as prescribed in this book in terms of shillings or marks, the shilling will be reckoned a *butdrager* and a mark twelve *butdragers*. And if the *butdragers* in times to come may get worse or out of use, so the mark will be paid with one and a half lot of good white silver weight of Cologne or other payment equivalent in Groningen or in the country.)

From this clause it appears that, in Groningen in 1448, 1 old *butdrager* æ 1/12 x 1½ lot of good white silver æ (1.5 x 15/16 x 14.6g) : 12 = 1.71g of silver. However, this interpretation of ‘a lot of good white silver’ might be disputed. If ‘good white silver’ was ‘pure’ silver, the silver content of 1 *butdrager* would be 1.825g.³¹ The last *butdragers* issued in Flanders, in 1407, were coins with a gross weight of 4.29g and

³⁰ RQ, 315 (§1).

³¹ (1½ x 14.6g) : 12 = 1.825g.

a silver content as high as 2.06g.³² But ‘good white silver’ suggests less fineness than ‘pure silver’. Moreover, there is another argument that supports my interpretation from a different angle. In Groningen in 1450, we find a rate of 1 *arnseguilder* equivalent to 1 lot of *fynes ghebrandes zilvers* (‘fine purified silver’)³³ and also a rate of 1 *arnseguilder* equivalent to 17 *butkens*.³⁴ In 1452, also in Groningen, a rate of 1 *arnseguilder* equivalent to 17 *butkens* or $8\frac{1}{2}$ white *stuver* is found.³⁵ From these rates it follows that

1 lot of ‘fine silver’ æ $8\frac{1}{2}$ white *stuvers* æ 17 *butkens*.

A white *stuver* at that time was equivalent to 1.63g of silver.³⁶ Hence we have:

1 lot of ‘fine silver’ æ $8\frac{1}{2} \times 1.63\text{g} = 13.8\text{g}$ ³⁷ of silver æ 17 *butkens*.

This silver equivalence of 1 lot of ‘fine silver’, however, implies that 1 lot of fine silver was not a lot of pure silver; that is, 14.6g of pure silver. If we follow the interpretation of a lot of fine silver being pure silver, it would result in a silver equivalence of $14.6\text{g} : 8\frac{1}{2} = 1.72\text{g}$ for a white *stuver*. That is higher than the definition in the Burgundian sources, and therefore this possibility must be rejected. The conclusion is that if the expression ‘fine silver’ in 1450 was intended to be understood as ‘pure’ silver, it was misleading. However, we need not be surprised by this; expressions such as ‘fine silver’ or ‘pure silver’ are precarious in common medieval parlance,³⁸ and the expression of 1450 occurs in a sales contract between an ordinary citizen of Groningen and his priest. If we accept this as an inaccurate formulation, the silver equivalence of a lot of ‘fine silver’ at 13.8g, derived from rates in Groningen, would be almost equal to the silver equivalence of 1 lot of silver 15/16 fine (‘15*lodiges* silver’) = $15/16 \times 14.6\text{g} = 13.7\text{g}$. This also seems the most likely interpretation of ‘good white silver’ as used in the 1448 treaty. I have therefore interpreted 1 lot of good white silver in Groningen as a lot of 15*lodiges* silver = 13.7g of pure silver in the relevant parts of this study.

We may conclude from the foregoing that, in Groningen definitions of money, ‘a lot of fine silver’ is also to be understood as ‘a lot of 15*lodiges* silver’.

³² Van der Wee, *Vlaams-brabantse muntstatistieken*, 58.

³³ GAG PK: 517 (R131).

³⁴ GAG HGG: 69 (R112).

³⁵ RAG OCG: 6; see Appendix II.

³⁶ Van der Wee, *Vlaams-brabantse muntstatistieken*, 97: 1.6286g.

³⁷ $8.5 \times 1.6286\text{g} = 13.8431\text{g}$.

³⁸ Jesse, *Der wendische Münzverein*, 51-52; Sprandel, *Das mittelalterliche Zahlungssystem*, 33, note 104.

