

***The Broadgate lead cloth seals (Crossrail - Liverpool Street
Excavation) - Evidence of Finishing and the Sealing of textiles in
Sixteenth Century Broadgate.***

Gary Bankhead
Department of Archaeology
University of Durham

gary.bankhead@durham.ac.uk
May 2016

Table of Contents

Chapter 1. The Broadgate lead cloth seal assemblage - an overview	3
Chapter 2. Catalogue and concordance of cloth seals	5
2.1. Abbreviations used in the catalogue	5
2.2. Unused (blank) cloth seals	5
2.3. Alnage seals	6
2.4. Clothiers', weavers' and dyers' personal seals	7
2.6. Seals attached to imported Continental textile	9
2.7. Un-provenanced cloth seals	11
2.8. Coin weights, toy spoon and casting waste	11
Bibliography.	12

Chapter 1. The Broadgate lead cloth seal assemblage - an overview

Analysis of the 40 lead cloth seals recovered from the excavations at Broadgate, London allude to cloth finishing activities being undertaken within the immediate vicinity of the finds site. They represent a diverse group of regulatory seals which can be considered in several generalised groups: unused (blank) seals (5), alnage seals (9), clothiers', weavers' and dyers' personal seals (14) and seals that were once attached to imported Continental textile (8). For such a large number of cloth seals to be found at one site is a remarkable occurrence and infrequently paralleled; in terms of the quantity and type of cloth seals found, there are similarities with those recovered in archaeological excavations at Victoria Wharf, Limehouse (35) and Tanner Street, Southwark (47). These cloth seals are an important group of finds, particularly as they represent direct evidence that the trade, industrial regulation and taxation of commercially produced cloth was taking place in or around Broadgate, during the late-sixteenth to early-seventeenth centuries. During this period, regulation had required that cloth workers, dyers and searchers would fix a lead seal to cloth as a degree of quality control; while crown appointed alnage officials would also fix a seal to the cloth they examined when enforcing the current assize of cloth and to confirm that a subsidy for each cloth had been paid (Endrei and Egan 1982, 55-58; Egan 1984, 18).

The level of preservation of the Broadgate cloth seals is generally good and this has helped with the interpretation of several complex privy marks, however, four seals are so worn/damaged that no discernible identification is possible. Apart from **26** and **27**, which are both one-part, the rest are all two-part lead cloth seals. The first group to be considered here are the blanks, No's **1 - 5**; the fact that the rivet devices of all five seals remain undamaged i.e. not flattened as would be the case had they been sealed to textile, is strong evidence that these unused seals were either accidentally lost or deliberately discarded (due to slight damage prior to use) in a location where the sealing of cloth was taking place. Coincidentally the shape, size and form of these five blank seals closely matches that of a group of eight alnage seals in the assemblage (discussed below) and it is certainly plausible that they are in fact unused alnage seals.

All but one of the alnage seals in the group (**6 - 14**) are crowned-portcullis series of county seals which typically date from the reign of Elizabeth I (they are mentioned in the 1566 statute 8 Eliz. I c. 12). This series of late-sixteenth century alnage seals, which were usually attached to woollen cloth, represent some of the most frequently recorded seals found in England. As is typical with this series, the legends are often poorly struck, however, the parts of the Lombardic-letter legends that are present can be reconstructed to read S'VLN'PAO'VEAL'I CO'... ('seal for the county of...'); which is a truncated version of '*sigillum ulnagii pannorum venalium in comitatu...*' (seal of alnage of saleable cloths in the county of...). Unfortunately, it has not been

possible to identify any county provenance, although the only known recorded counties which feature Lombardic-letter legends in this series are: Kent, Devon, Worcestershire and Yorkshire (Egan 1984, 51-52). The presence of royal devices (crown/fleur-de-lys) on **14** strengthens the evidence that alnage officials were sealing cloth in the immediate vicinity of the find site.

Cloth seals **15 - 28** all feature intricate privy marks and as such, are attributed here with the work of weavers', clothiers', searchers or dyers. Although **19**, with its corded madderbag, is direct evidence of London Dyers Company activity, it is certainly plausible that several others of this group are also associated with the activity of Company dyers. For example, many parallels of the distinctive one-part seals **26** and **27** have been found on the River Thames foreshore between Trig Stairs and London Bridge. These seals, which are typically dated to the late-sixteenth century, have been associated with the commercial dying of cloth adjacent to this stretch of the river (Egan 1995, 95). Two-part cloth seals **22 - 25**, which all feature identical privy marks, provide further evidence of concentrations of activity, again likely to be associated with dying. In addition, the initials of two individuals NS (**20** and **28**) and GG (**21**) are typical of seals of this type (found in London) and are also likely to be those of persons involved in the dying process. Cloth seal **21** is an important find as it features the surname initials of the annually elected warders of Norfolk's Worsted Weavers Company, it is evidence of provincial cloth being sent to London for finishing, probably before then being re-exported. Norwich merchants had enjoyed considerable marketing in London and it was not until the second half of the sixteenth century when London authorities tried to restrict it (Allison 1955, 399-400). Cloth seal **16** is also of some importance as it features a rare scrap of woollen textile trapped between the lead discs. Scientific analysis of this textile could inform us much about the nature of the textiles and dyestuffs in use in sixteenth to early-seventeenth century Broadgate. The presence of seven European cloth seals in the assemblage (**29 - 36**) are not unusual finds for London. Textiles represented amongst this group appear to come from the important textile production centres of Amsterdam, Leiden, Naarden, Delft (Netherlands) and Kempton (Germany). It is likely that these textiles which were probably handled by hanseatic merchants were similarly sent to London for finishing, via the long established trading ports of Antwerp or Hamburg (Ling Huang 2015, 210).

Given the proximity of the find site to the sections of the River Thames mentioned above and nearby Butchers Close and Bun Hill Fields tenter grounds, combined with the fact that Company dye-houses were often a simple extension of private domestic tenements. Then it seems evident that the dense network of lanes, yards and alleys present, in late-sixteenth to early-seventeenth century Broadgate, was the location where Company freemen, housekeepers, master dyers, journeymen and their apprentices were commercially dying locally woven, provincial and imported cloth, in their independent shops (Feldman 2005, 115-116; Mackintosh pers comm., April 2016).

Chapter 2. Catalogue and concordance of lead cloth seals from Broadgate, London

2.1 Abbreviations used in the Catalogue.

M.O.L.	Museum of London
MOLA	Museum of London Archaeology
Acc. no.	Accession number (MOLA)
N.Mus.	Norwich Museum
S.Mus.	Salisbury and South Wiltshire Museum
B.M.	British Museum (Occasional Paper 93)
P.A.S.	Portable Antiquities Scheme
DU.Mus.	Durham University Museum of Archaeology
A.A.S	Amsterdam Archaeological Services
G.N.Mus.	Germanisches National Museum
MD	metal detecting find (P.A.S. method of find)
-	no stamp/mark/device or worn
/	next line
//	next disc
..	single character missing
...	two or more characters missing
()	incomplete or missing letters etc. that can be restored with confidence.
(?)	probable

2.2. Unused (blank) cloth seals.

No. 1 MOLA Acc. no. 2137

Sixteenth to Late-sixteenth to early-seventeenth century.

- // -.

A complete two-part cloth seal with interconnecting strip. An unused blank.

No. 2 MOLA Acc. no. 2944

Sixteenth to Late-sixteenth to early-seventeenth century.

- // (missing).

An incomplete two-part cloth seal, only the first disc and partial interconnecting strip are present. An unused blank.

No. 3 MOLA Acc. no. 2062

Sixteenth to Late-sixteenth to early-seventeenth century.

- // -.

A complete two-part cloth seal with short interconnecting strip. An unused blank.

No. 4 MOLA Acc. no. 2054

Sixteenth to Late-sixteenth to early-seventeenth century.

- // -.

A complete two-part cloth seal with interconnecting strip. An unused blank.

No. 5 MOLA Acc. no. 2060

Late-sixteenth to early-seventeenth century.

- // -.

A complete two-part cloth seal with interconnecting strip. An unused blank.

2.3. Alnage Seals

Many parallels exist for the following eight alnage seals which are all Elizabethan two-part crowned-portcullis county series, including 22 from Durham (DU.Mus.) and 14 from Salisbury, see: S.Mus. 3, 78-90; B.M. 41, 48, 49, 107; N.Mus. 2008.507.2.2 and metal detecting finds: P.A.S. SUR-418ED7 (Buckingham, Buckinghamshire), SF-6E0501 (Barnham, Suffolk), GLO-F4ED54 (Charfield, Gloucestershire). The Buckingham cloth seal has XV stamped on the second disc, a possible indication of the weight in pounds of the cloth. Two examples are also recorded on the Continent: A.A.S. NZD1.00462MTL134 and G.N.Mus H.M.943.

No. 6 MOLA Acc. no. 2946

Late-sixteenth century.

Partial beaded border (?)| (Lombardic-lettering) // (missing).

An incomplete two-part alnage seal only the first disc and partial interconnecting strip are present. Probable crowned-portcullis county series.

No. 7 MOLA Acc. no. 2945

Late-sixteenth century.

- // Partial beaded border ...I... V E A L ...

A complete two-part alnage seal with interconnecting strip. Probable crowned-portcullis county series.

No. 8 MOLA Acc. no. 2088

Late-sixteenth century.

- // partial crown / 3x3 portcullis (on rivet of first disc).

An incomplete two-part alnage seal only the first disc is present. Crowned-portcullis county series.

No. 9 MOLA Acc. no. 2122

Late-sixteenth century.

Two scratched parallel lines // crowned portcullis, beaded circular border, ...N P A O
V...(mis-struck).

A complete two-part alnage seal with interconnecting strip. Crowned-portcullis county series.

No. 10 MOLA Acc. no. 2059

Late-sixteenth century.

- // (crude) crowned-portcullis.

A complete two-part alnage seal with interconnecting strip. Probable crowned-portcullis county series.

No. 11 MOLA Acc. no. 2052

Late-sixteenth century.

(Missing) // crowned-portcullis (3x3), beaded circular border, ... V L N ' ... V E A L ...

An incomplete two-part alnage seal only the second disc and partial interconnecting strip are present. Crowned-portcullis county series.

No. 12 MOLA Acc. no. 2053

Late-sixteenth century.

Faint impression/privy mark // crowned-portcullis, beaded circular border, ...P A O' ... (on rivet of first disc.

An incomplete two-part alnage seal only the first disc is present. Crowned-portcullis county series.

No. 13 MOLA Acc. no. 519

Late-sixteenth century.

(Missing) // Crowned-portcullis, beaded circular border, S' V L N' P A ...

An incomplete two-part alnage seal only the second disc is present. Crowned-portcullis county series.

No. 14 MOLA Acc. no. 2057

Sixteenth to early Late-sixteenth to early-seventeenth century.

- // crown / fleur-de-lys.

A complete two-part alnage seal with interconnecting strip.

2.4. Clothiers', weavers' and dyers' personal seals

No. 15 MOLA Acc. no. 2113

Late-sixteenth to early-seventeenth century.

- // privy mark - stylised (?) M, beaded circular border.

A complete two-part cloth seal with interconnecting strip.

No. 16 MOLA Acc. no. 2058

Late-sixteenth to early-seventeenth century.

- // intricate privy mark. Surviving woollen textile trapped between discs.

A complete two-part cloth seal with interconnecting strip.

No. 17 MOLA Acc. no. 2118

Late-sixteenth to early-seventeenth century.

(Missing) // several scratched lines

An incomplete two-part cloth seal, only the second disc is present.

No. 18 MOLA Acc. no. 2051

Late-sixteenth to early-seventeenth century.

(Missing) // privy mark - stylised (?) G

An incomplete two-part cloth seal, only the second disc is present.

No. 19 MOLA Acc. no. 385

Late-sixteenth to early-seventeenth century.

- // partial corded madderbag, R or B within (on rivet of first disc).

An incomplete two-part cloth seal, only the first disc is present. A probable London Dyers Company seal - the madderbag is used here as a generalised symbol of the Company.

No. 20 MOLA Acc. no. 2050

Late-sixteenth to early-seventeenth century.

- // privy mark around N S initials.

A complete two-part cloth seal with interconnecting strip. See **28** below for a unusual double stamped version and also B.M. 287 for similar.

No. 21 MOLA Acc. no. 478

Late-sixteenth to early-seventeenth century.

L / R O B / W A (?) W (mis-struck) // (missing)

An incomplete two-part cloth seal, only the first disc and partial interconnecting strip are present. Probable Worsted Weavers company seal. See D.Univ. B.2452 and B.2464 for similar and M.O.L. 95.235/19 which shows another similar configuration of initials and is listed as 'Norwich Worsted?'

No. 22 MOLA Acc. no. 2046

Late-sixteenth to early-seventeenth century.

- // intricate privy mark on rivet of first disc.

A complete two-part cloth seal with short interconnecting strip. Identical to **23**, **24** and **25** below.

No. 23 MOLA Acc. no. 2045

Late-sixteenth to early-seventeenth century.

- // intricate privy mark on rivet of first disc.

A complete two-part cloth seal with interconnecting strip. Identical to **22**, **24** and **25**.

No. 24 MOLA Acc. no. 2044

Late-sixteenth to early-seventeenth century.

- // intricate privy mark on rivet of first disc.

A complete two-part cloth seal with interconnecting strip. Identical to **22**, **23** and **25**.

No. 25 MOLA Acc. no. 2043

Late-sixteenth to early-seventeenth century.

- // intricate privy mark on rivet of first disc.

A complete two-part cloth seal with interconnecting strip. Identical to **22**, **23** and **24** above.

No. 26 MOLA Acc. no. 518

Sixteenth century.

Privy mark within beaded circular border.

A one-part cloth seal with a horizontal hole through which would be passed a tape or string for attachment to textile. Similar to **27** below. Probably associated with London Dyers Company activity, see Occasional Paper 93 (1995, 95) for further comment on this series.

No. 27 MOLA Acc. no. 2047

Sixteenth to early-seventeenth century.

Privy Mark - G A L (?) T

A one-part cloth seal with a horizontal hole through which would be passed a tape or string for attachment to textile. Similar to **26** above. Probably associated with London Dyers Company activity, see Occasional Paper 93 (1995, 95) for further comment on this series.

No. 28 MOLA Acc. no. 2040

Late-sixteenth to early-seventeenth century.

- // privy mark around N S initials, with second (shield-shaped) privy mark over stamped at a 90° angle).

A complete two-part cloth seal with interconnecting strip. As **20** above.

2.5. Seals attached to imported Continental textile

No. 29 MOLA Acc. no. 384

Late-sixteenth to early-seventeenth century.

- // intricate privy mark around initials (?) G G.

A complete two-part cloth seal with interconnecting strip. Two rivet type. Cloth seals with two rivets are indicative of seals from Flanders and Brabant.

No. 30 MOLA Acc. no. 2071

Sixteenth to seventeenth century.

Possible ornate letter (?) B or R // shield with double-headed haloed eagle displayed, crown above.

Kempton, Germany.

An incomplete two-part cloth seal, the second disc and interconnecting strip are missing. Fine textile imprint c.22 warp thread x c.22 weft threads per 10mm, 2:1 twill weave. See BM. 314 and S.Mus 155 for very close parallels.

No. 31 MOLA Acc. no. 2112

Late-sixteenth to early-seventeenth century.

Crown / (?) lion (on rivet of first disc // (missing).

An incomplete two-part cloth seal, the second disc and interconnecting strip are missing. Probably continental (Low Countries - Leiden). See Provinciewapen Type III AM (2.H.27 Kz recovered from the 1635 Dutch wreck Aanloop Molengat for similar.

No. 32 MOLA Acc. no. 2942

Late-sixteenth to early-seventeenth century.

Building with narrow tower and coned roof, X in centre of building, over-stamped with lions head // -.

A complete two-part cloth seal with interconnecting strip. Probably continental (Low Countries - Amsterdam).

No. 33 MOLA Acc. no. 2072

Late-sixteenth to early-seventeenth century.

Rampant lion / 80 / X // (missing).

An incomplete two-part cloth seal the second disc and interconnecting strip are missing. Fine textile imprint c.22 warp threads x c.22 weft threads per 10mm, probable 2:1 twill weave. See Type I, AM 1993.8.1 recovered from the 1635 Dutch wreck Aanloop Molengat for similar and also **35** below.

No. 34 MOLA Acc. no. 2055

Late-sixteenth to early-seventeenth century.

- // Lombardic-lettering (?) N, beaded circular border.

A complete two-part cloth seal with interconnecting strip. Probably continental (Low Countries - Naarden).

No. 35 MOLA Acc. no. 2056

Late-sixteenth to early-seventeenth century.

V (in relief) // (?) y v / horizontal line / NIE.

A complete two-part cloth seal with interconnecting strip. Probably continental (Low Countries - Amsterdam).

No. 36 MOLA Acc. no. 2048

Late-sixteenth to early-seventeenth century.

P / rectangular shape with triangular ends / four-sided pellet // rampant lion / 71 / X.

A complete two-part cloth seal with interconnecting strip. Fine textile imprint c.22 warp threads per 10mm, weft threads not visible, probable plain weave. See Type I, AM 1993.8.1 recovered from the 1635 Dutch wreck Aanloop Molengat for similar and also **32** above.

2.6. Un-provenanced cloth seals

No. 37 MOLA Acc. no. 2953

Late-sixteenth to early-seventeenth century.

- // (missing).

An incomplete two-part cloth seal only the first disc is present.

No. 38 MOLA Acc. no. 2049

Late-sixteenth to early-seventeenth century.

(Missing) // -.

An incomplete two-part cloth seal only the second disc and partial interconnecting strip are present.

No. 39 MOLA Acc. no. 2032

Late-sixteenth to early-seventeenth century.

(Missing) // -.

An incomplete two-part cloth seal only the second first disc and partial interconnecting strip are present.

No. 40 MOLA Acc. no. 2030

Late-sixteenth to early-seventeenth century.

- // (missing).

An incomplete two-part cloth seal only the first disc is present

2.7. Coin weight, toy spoon and probable casting waste

No. 41 MOLA Acc. no. 2943

Probable casting waste, definitely not a lead cloth seal.

No. 42 MOLA Acc. no. 2061

Probable casting waste, definitely not a lead cloth seal.

No. 43 MOLA Acc. no. 2131

Pewter toy (?) apothecary spoon, diamond section stem and ball knob. Confirmed (via email) by Hazel Forsyth, Senior Curator, Medieval & Post-Medieval Museum of London.

No. 44 MOLA Acc. no. 2080

Probable coin weight (Fleur-de-lys / crescent moon). Definitely not a cloth seal!

No. 45 MOLA Acc. no. 2081

Off-cut of (?) lead stamped with intricate/ornate privy mark C / T within an (?) arched tressure, beaded circular border. Almost certainly the mark of an individual engaged in the textile finishing process. Probably a practice stamp, undertaken immediately prior to applying the same mark onto a lead cloth seal.

2.8. Bibliography.

Allison, K. J. 1955. *The Wool Supply and the Worsted Cloth Industry in Norfolk in the Sixteenth and Seventeenth Centuries*. PhD thesis, University of Leeds. Available [online] at: <http://etheses.whiterose.ac.uk/11293/> (first accessed January 2016).

Egan, G. 1987. *Provenanced Lead Cloth Seals*. Unpublished PhD thesis. University of London. Available [Online] at: <http://discovery.ucl.ac.uk/1349956/1/488665.pdf> (Accessed 10 April 2016).

Egan, G. 1995. *Lead Cloth Seals and Related Items in the British Museum*. British Museum Occasional Paper 93.

Egan, G. 2001. In: *Salisbury & South Wiltshire Museum Medieval Catalogue*. Part 3. Salisbury and South Wiltshire Museum. Salisbury.

Endrei, W; Egan, G. 1982. *The Sealing of Cloth in Europe with Special Reference to the English Evidence*. In *Textile History*, 13(1).

Feldman, R, A. 2005. *Recruitment, Training and Knowledge Transfer in the London Dyers Company, 1649-1826*. PhD thesis. The London School of Economics and Political Science.

Ling Huang, A; Jahnke, C. 2015. *Textile and Medieval Economy: Production, Trade and Consumption of Textiles 8th-16th Centuries*. Oxbow Books. Oxford.

Mackintosh, I. Hon Archivist for the London Dyers Company (pers comm., April 2016).