

Kay Hartley is the leading international scholar in mortarium studies. Her extensive paper archive covers all aspects of mortarium studies including rubbings of potter's name stamps, record cards for each stamped sherd, drawings of some stamps and vessels. The primary aim of the **Kay Hartley Mortarium Archive Project** is to secure the archive in digital format and to make it accessible via the Archaeological Data Service in York for other scholars the use.

Part of the project, using the stamp rubbings, **created a classification of border patterns and recorded them,** to provide an aid for researchers to identify potter's stamps. This presentation with notes gives an overview of the classification and recording methodology devised by Yvonne Boutwood. It demonstrates how the data are an effective tool to aid the identification of potter's stamps.

SOLLVS stamp illustrated here is clearly impressed and easily read, but poorly impressed, partial stamps, or retrograde ones, are more problematic to identify. It requires skill to read stamps, or to identify fabrics to narrow down choices of potters who worked in a particular industry. Whereas recognizing and matching border patterns is easier and much less subjective, providing a means to reducing the number of options for identifying a named potter and die.

**The approach** to creating a classification and dataset was shaped by the progression of the project stages, evaluating one regional pottery industry at a time. Verulamium

Region done first was followed by Mancetter-Hartshill, Alcester, Lincolnshire and continental imports.

Stamps were selected to represent the clearest detail and extent for a potter's stamp (die). To date (February 2020) it provides a dataset of 680 potter's dies, including legible names, incomplete (illiterate & illegible), counterstamps, herringbones and trademarks.

**The system is not an overarching typology**, rather the classification framework needed to be flexible to accommodate new variations as they were encountered. A document *'Classification of Borders on Roman Mortarium Stamps'* (V1.2 February 2022) provides descriptions of the border classes and sub-divisions, illustrated with stamp rubbing photographs and will be updated as new classes are recorded.



**Illustrations** used in this presentation are photographs of Kay's stamp rubbings, so are **not to scale.** Another part of the project is scanning the stamp rubbings, selected for showing the clearest detail and fullest extent of a stamp die. **Die numbers** are Kay's attributed sequence as she encountered new dies for a potter, therefore not a chronological dated sequence.

Stamp impressions on mortaria rim flanges have hollows and **upstanding elements**, the latter shapes are defined here as border patterns and classified. Dark graphite rubbings on paper reveal these patterns, but finer detail that occurs on the pot impression may not come through via this process (although Kay's skills at stamp rubbing is impeccable!)

First need to look at the parts of a stamp to establish a nomenclature and **define** what a 'border' is.

Letters occur within a **letter or namepanel**, surrounded by a line, defined as a **Frame** (e.g. MATVGENVS 1 Die 1)

A border pattern is **linear and parallel to the letterpanel.** 

The majority of stamps have **borders outside the frame**.

Some may also have **border patterns within the frame** (e.g. FECIT No. 9).

Some have a border pattern, but have no frame (SOLLVS Die 1)

This classification does NOT record decorative motifs within the letterpanel e.g. leaf motifs.

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Slide 3				RECORDING					
MATVGENVS I Die 1   Oppositie   SOLLVS Die 1									
	BORDERS								
NAMESTAMP Die	Border_TOP	Border_BOTTOM	Border_LEFT	Border_RIGHT	Border_OTHER				
MATVGENVS 1 1	Bar-Reversed	Bar-Reversed	NK	Bar-Horizontal					
SOLLVS 1	Chevron	Chevron	Border-None	Border-None	Frame-None				
FECIT No. 9	Bar-Diagonal	Cross-Lattice	NK	NK	Dot				

What is recorded: borders at the TOP, BOTTOM, LEFT & RIGHT sides.

Patterns on these four areas may differ within one stamp and are evaluated and classified separately.

Some stamp dies are fragmentary, with parts of the border absent through poor impression, particularly the left and right sides, which coincide with the rim bead or flange end. Not known (NK) is then recorded, and out of 680 die entries, NK occurs in 61 TOP borders, 60 BOTTOM, 345 LEFT and 391 RIGHT.

**Border\_OTHER:** SOLLVS has a Chevron border pattern at the top and bottom, plus **no solid line or Frame** surrounding the letters, so **'Frame-None'** is recorded in Border\_Other column, as unable to record two terms in one field e.g. Chevron and Frame-None. Only 42 out of 680 dies have Frame-None.

Note as the majority of stamps have a frame surrounding the letterpanel plus a border pattern, e.g. MATVGENVS 1 Die 1, the frame is not recorded. The **Class Frame** is only reserved where it occurs on its own with no other border pattern (see slide 5 e.g. ALBINVS 1 Die 2).

**Border\_CENTRAL:** this field was added in November 2021 to record examples from continental imports, which have a central border pattern dividing a two-line namestamp (see slide 9 e.g. Q.VALERIVS VERANIVS Die 8)

Which way up to determine top, bottom, left and right: The four areas are defined

in relation to the way-up of the impressed stamp letters, not the stamp orientation on the pot i.e. from bead to flange edge, or stamped along the flange. Retrograde stamps, which read right to left, still maintain the principle of the way up of the letters, not the reading.

**Collated data:** in a spreadsheet, which can enable uploading to a database. Dataset of 680 dies to February 2022.

**Classification terms:** border patterns divided into broad classes with subdivisions, using simple descriptive terms.

**Can search on any part of the stamp**, which is helpful with partial stamps. It is **not a typology**, that evaluates all stamp borders in a single stamp together to define a type.

**FECIT stamps**: Total 52 so far, all in VRW and Mancetter-Hartshill, 32 occur as counterstamps associated with a known potter's namestamp, stamped either side of the spout. 20 are not attributed to a potter, hence given a sequence number e.g. FECIT No. 9 is a VRW fabric. It has border patterns at the top and bottom and one also inside the frame (recorded in Border\_OTHER), that occurs in only 12 out 680 dies, only 6 of 12 are a Dots border, only 1 of 6 reads FECIT. Also its top and bottom border patterns differ and do not match, occurs in 30 out of 680 dies, only 3 of 30 are FECIT. Demonstrates the ability to search on more than one attribute to narrow down choices.

Slide 4		BORDER CLASSES & SUB-DIVISIONS	
1.0	Border-None	7.0 Cross 7.1 Cross-Lozenge	
2.0	Frame 2.1 Frame-None	7.2 Cross-Lattice	
3.0	Ansate End	8.0 <b>Zig-Zag</b> 8.1 Zig-zag-Dot 8.2 Zig-zag-Double	
4.0	Bar 4.1 Bar-Vertical 4.2 Bar-Diagonal	9.0 Strand	
	4.3 Bar-2Directions 4.4 Bar-Reversed 4.5 Bar-Horizontal	10.0 <b>Circle</b> 10.1 Circle-Dot	
	4.6 Bar-Interlocked 4.7 Bar-Dot	11.0 <b>Dot</b>	
	4.8 Bar-Double	12.0 Composite	
5.0	Chevron 5.1 Chevron-2Directions 5.2 Chevron-Reversed	13.0 <b>Sawtooth</b> 13.1 Sawtooth-Double	
	5.3 Chevron-Dot	14.0 Dashed Line	
6.0	Herringbone 6.1 Herringbone-Linked 6.2 Herringbone-Reversed	February 2022	

To date February 2022 there are **14 border classes with sub-divisions.** 

System uses **simple terms** to describe each border pattern class, with additional term(s) for sub-divisions.

**Repetitive terms** facilitate searching to retrieve a group with similar elements e.g. 'cross', which forms lozenges or lattices, defining the two sub-divisions.

The numerical order of class numbers is not significant, initially covering Verulamium Region with additional ones incorporated as each industry was completed.



Border-None: 147 out of 680 dies.

**Frame:** 128 out of 680 dies (only applied when a frameline is on its own with no other border pattern).

Given there are large numbers of these categories, will need to use skills to read letters, recognize if retrograde, and decipher names to search on those.

But can add other search criteria to reduce choices e.g. two-line, fabric/ industry, or reading retrograde.

For example out of 128 dies with a Frame, only 3 dies are two-line, 25 dies are retrograde and only 5 read FECIT, the latter all VRW.



Ansate end: 16 dies, from 7 potters, VRW examples illustrated here, but also occurs in Mancetter-Hartshill (SVRVS) and on Procuratorial stamps.

No further class sub-division made to describe detail form of an ansate end, currently each is unique to a single potter/ die.



BARS: commonest form of border pattern occurring in 267 dies out of 680. Broken down into 8 class sub-divisions.

Bars vary in length, width and spacing, but no sub-divisions made to describe these, as quantifying and measuring such small measurements too difficult.

Can use other attributes in a search to reduce choices e.g. two-line, fabric/ industry, or if reading retrograde.



Bar-2Directions - only 8 dies out 680, only 1 FECIT (MATVGENVS 1 Die 4), only VRW and 2 continental imports use this pattern.

Bar-Interlocked - think of the pattern as interlocked fingers, only 1 example, DOCCAS Die 1

Bar-Double - bars are divided by a line forming a double row, only 1 example, continental import (VASSONVS Die 1)



How to deal with dots, which can be ephemeral features, often lying in the spaces as part of another pattern, can be poorly impressed, or poor graphite rubbing misses them. Rather than push all into a 'Dots' category, decided to focus on stronger features occurring with them e.g. bars with dots, zig-zag with dots, circles with dots. Dots on their own in row are one category – Dots (e.g. BONOXVS Die 1 & SABINVS Die 1).

INC12 – fragmentary border, so unsure if Top or Bottom border, so data recorded in both fields, to ensure it will be found if anyone has a match (we need more of this VRW stamp!).

Continental imports introduced a new attribute – many are two-line stamps with a central border, recorded in an additional field Border\_Central e.g. Circle-Dot, Q.VALERIVS VERANIVS Die 8



Classes: Strand, Circle & Composite have every few examples.

Strand: 5 dies from 3 potters (GISSVS, ORBISSA and Q. VALERIVS SVRIACVS).

**Circle:** only 1 die and potter (MARINVS 1 Die 1) open circle has an interlacing strand, which is easily missed.

Sub-division: **Circle-Dot**, only examples: LITVGENVS 2 Die 1 and Q.VALERIVS VERANIVS Die 8.

Composite: only example CASTVS Die 1



Additional classes occurring in Mancetter-Hartshill industry: Sawtooth and Sawtooth-Double, Herringbone-Reversed, and Dashed.

Table 3 Comparison of stamp borders occurring across evaluated groups in 'Classification of Borders on Roman Mortarium Stamps' V1.2 February 2022) illustrates where border patterns are unique to an industry. Yet to see as project progresses with evaluating more industries if these borders stay unique to Mancetter-Hartsthill.

Slide 12	SEARCH DEMONSTRATION					
TOP & BOTTOM borders first: Bar-Reversed - 57 dies out of 680 datasetinclude RIGHT border: Bar-Diagonal - reduces 57 to 8 diesLEFT border is not known: maybe Bar-Reversed - adds 3 diesStamp to identify						
INDUSTRY	NAMESTAMP	Die	Border_TOP	Border_BOTTOM	Border_LEFT	Border_RIGHT
VRW	ABBIA	1	Bar-Reversed	Bar-Reversed	Bar-Diagonal	Bar-Diagonal
VRW	ATEPACI 1	1	Bar-Reversed	Bar-Reversed	Bar-Diagonal	Bar-Diagonal
VRW	TM 44		Bar-Reversed	Bar-Reversed	Bar-Diagonal	NK
VRW	MELVS 1	3	Bar-Reversed	Bar-Reversed	Bar-Reversed	Bar-Reversed
M-H	BRVSCIVS	6	Bar-Reversed	Bar-Reversed	Bar-Diagonal	Bar-Diagonal
M-H	IVNIVS 2	8	Bar-Reversed	Bar-Reversed	Bar-Diagonal	NK
M-H	IVNIVS 2	12	Bar-Reversed	Bar-Reversed	Bar-Diagonal	NK
M-H	NANIIICO	1	Bar-Reversed	Bar-Reversed	Bar-Diagonal	Bar-Diagonal
M-H	INC52	1	Bar-Reversed	Bar-Reversed	Bar-Diagonal	NK
Noyonnais	CACVMATVS + VASSONVS	1	Bar-Reversed	Bar-Reversed	Bar-Reversed	Bar-Reversed
Noyonnais	SUMMACVS	3	Bar-Reversed	Bar-Reversed	Bar-Reversed	Bar-Reversed
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Search Demonstration: Stamp to identify is a partial stamp, with borders and letters, need to decide which way up - A is upright.

Not sure if retrograde, but that is not relevant to borders search first.

Look at TOP & BOTTOM borders first, **Bar-Reversed**, retrieves 57 out 680 dataset. Add RIGHT border, **Bar-Diagonal**, which then reduces choices to 8 dies.

LEFT border is not known (NK), therefore maybe same as the TOP & BOTTOM pattern i.e. **Bar-Reversed** - that includes another 3 dies. (N.B. if a there is only one diagonal border known, then need to include Bar-Reversed in searches to allow for that option).

Looking at results, the namestamp – **ATE**PAC[ 1 gives a good match as a retrograde stamp, is a VRW potter.

Note if you were confident of the VRW fabric in the first place, then could have filtered on that criteria first, before the borders, to retrieve just 4 dies out of 680.

Slide 13			SEARCH DEMONSTRATION			
ATEPAC[1 Atepac(ius) Die 1 retrograde						
INDUSTRY	NAMESTAMP	Die	Border_TOP	Border_BOTTOM	Border_LEFT	Border_RIGHT
VRW	ABBIA	1	Bar-Reversed	Bar-Reversed	Bar-Diagonal	Bar-Diagonal
VRW	ATEPAC[ 1	1	Bar-Reversed	Bar-Reversed	Bar-Diagonal	Bar-Diagonal
VRW	TM 44	İ.	Bar-Reversed	Bar-Reversed	Bar-Diagonal	NK
VRW	MELVS 1	3	Bar-Reversed	Bar-Reversed	Bar-Reversed	Bar-Reversed
M-H	BRVSCIVS	6	Bar-Reversed	Bar-Reversed	Bar-Diagonal	Bar-Diagonal
M-H	IVNIVS 2	8	Bar-Reversed	Bar-Reversed	Bar-Diagonal	NK
M-H	IVNIVS 2		Bar-Reversed	Bar-Reversed	Bar-Diagonal	NK
M-H	NANIIICO	1	Bar-Reversed	Bar-Reversed	Bar-Diagonal	Bar-Diagonal
M-H	INC52		Bar-Reversed	Bar-Reversed	Bar-Diagonal	NK
Noyonnais	CACVMATVS + VASSONVS		Bar-Reversed	Bar-Reversed	Bar-Reversed	Bar-Reversed
Noyonnais	SUMMACVS		Bar-Reversed	Bar-Reversed	Bar-Reversed	Bar-Reversed

Looking at the photographs of rubbings selected to give the best detail and extent, ATEPAC[1 Die 1 Atepac(ius), confirms the match. It turns out its left border is Bar-Diagonal and not Bar-Reversed.

## Slide 14

Classification of Borders on Roman Mortarium Stamps

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February 2022