LOOKING AT CROSS-FITS

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Summary

Ceramic cross-fits have long been recognised as an aid to the interpretation of dumping processes and site stratigraphy. Where they occur in vertical sequence, presenting all the relevant data can be difficult for the ceramicist and confusing for the reader.

Expressing this information in table form is often not a flexible enough approach to allow every aspect of a sequence to be appreciated. This article offers a graphic technique which allows a pattern of cross-fits to be examined and presented in a number of ways. This method not only increases the readers' understanding and the ceramicists research options, it also enhances a publication with the inclusion of diagrams of dynamic, elegant and mysteriously technical mien.

Ceramic cross-fits between features and between contexts can provide useful information on depositional mechanisms and stratigraphic relationships. Moorhouse, in his Sandal Castle report (Moorhouse 1983), has discussed the significance of cross-fits in interpreting the distribution of pottery in various castle phases, and in placing different features into the same phase. In Southampton the nature of urban excavation, with a multitude of trenches which are in effect only samples of the larger site that is the whole town, means that linking features and deposits by ceramic cross-fit is a process only significant to a smaller area. This does not make them of any less interest: a medieval tenement is a recognisable unit with a specific ceramic assemblage which imparts information concerning the occupation of that area that is just as valid as the information the same assemblage gives about the town. Furthermore, study of the site-specific quality of such an assemblage is often more complex and revealing than simply fitting it into an existing pattern. Cross-fits can go some way towards solving some of the problems such an assemblage sets. For instance, which pots were in use at the same time? Which pots were deposited at the same time? Which pits were filled in at the same time? How were they filled in, and how was household refuse managed? The purpose of this article is to suggest a way of presenting cross-fit information in a manner which might help to answer these types of questions.

Moorhouse's presentation of his Sandal Castle cross-fits are based primarily on plans (ibid., Fig. 63, p. 171). Although this method works reasonably well (if only by virtue of the small numbers of vessels present in each phase) it does not express any vertical relationships, which was the problem that faced this author on a particular group in Southampton. Attempts to present a vertical cross-fit pattern from a single feature have culminated in the adoption of a diagrammatic format that conveys as much information as possible and is still easy to read once the principle is understood.

A stone-lined garderobe at Southampton Castle (site no. SOU 123) contained seven stratigraphically distinct deposits between which twenty-one separate vessels cross-fit. The assumption of any long-term chronological depositional sequence in this feature is refuted by this ceramic evidence. Table 1 was the first attempt at expressing this cross-fit information in print. It shows the percentage of the total weight of each vessel that occurs in each context, and the percentage that represents of the total sherd weight for each context. This proved unsatisfactory, however, when it was used to put forward all the arguments which are used in interpreting this material. The diagrams in Figs. 1, 2 and 3 convey the same information and more in a more readily appreciated form.

The vessel numbers are arranged across the top, with the contexts in stratigraphical order forming the vertical axis. The total sherd weight, or the total sherd number, for each vessel appears along the bottom row. The percentage of these totals for each vessel in any context is represented as a horizontal line, the width of which indicates the amount. The wider the line the higher the percentage. Thus in Figs. 1 A, 2A and 3A it may be seen that c. 76% of the sherd weight of vessel 1 came from context A291 while the remaining 24% came from A292. Similarly, 75% of the sherd number of the same vessel came from A291 and 25% from A292. Showing sherd weight and sherd number gives an indication of sherd size in each example. The horizontal lines are joined up to make the pattern of the cross-fit distribution more obvious, and the triangular effect lends the chart a dynamic quality that saves a good deal of verbiage in analytical discussion. Breaks in the vertical flow occur where sherds of a vessel are not present in an intervening context. Hence sherds of vessel 10 came from contexts A293, A294, and A296 and none from A295. There are five different shadings within each block, showing how much of the vessel survives overall. In this instance no vessel survives complete. These diagrams do not show an exact percentage figure, so in a published report they are supported by a table similar to table 2 which appears in microfiche.

The visual nature of this method allows a very flexible approach to the information. Fig. 1 has the vessels arranged in stratigraphic order, and where a number of vessels appear in the same contexts (e.g. vessels 2-8) they are placed in ascending order of total vessel survival. This design depicts the ceramic sequence and divides the vessels into stratigraphically defined groups. The most obvious division here comes between contexts A291-A292 and A293-A297. Vessel 1 links the two uppermost layers of the garderobe and these are ceramically quite separate from the rest. This is apparent when one sees the pottery itself, which is post-medieval while the rest is all 13th century. In cases where a depositional sequence is hidden in pottery that is not so clearly distinguished, however, this method can be of value not only to the reader of a report but also to the original researcher. In this particular example there are enough cross-fits between the remaining five contexts to suggest a single dumping operation. It is not proposed to go into great detail here, since a full analysis of these data appears in the report (Brown in press).

In Fig. 2 the vessels are arranged according to vessel type. Thus Group A comprises plain handbuilt cooking pots, Group B Scratch-Marked cooking pots,

Context Number	291		292		293		294		295		296		297		Total Vessel Weight
Vessel Number	v	c	v	c	v	c	v	c	v	c	v	c	v	c	
1	76	74	24	100											161
2					82	5	18	1							216
3					22	7	78	14							1288
4					35	5	65	5							583
5					12	2	88	10							798
6					20	3	80	6							579
7					90	8	10	1							338
8					92	23	8	1							921
9					6	1					94	5			336
10					46	2	23	1			31	1			177
11					8	2	16	2			1	1	25	17	992
12					20	4	23	2			31	4	26	4	704
13							23	2			77	9			684
14							4	1			96	10			581
15							83	3			17	1			296
16							33	2	1	18	55	26	11	7	2744
17							22	5			19	2	59	8	624
18							39	5					61	12	857
19									11	48	74	9	15	2	688
20											33	5	67	13	815
21											12	1	88	9	424
Total Weight from Context	168		37		3701		7132		162		5757		4283		14806
% weight cross-fit vessels	74		100		62		58		66		74		72		68

v = % weight of vessel c = % weight of pottery from context

Table 1: showing the proportional presence of each vessel in each context

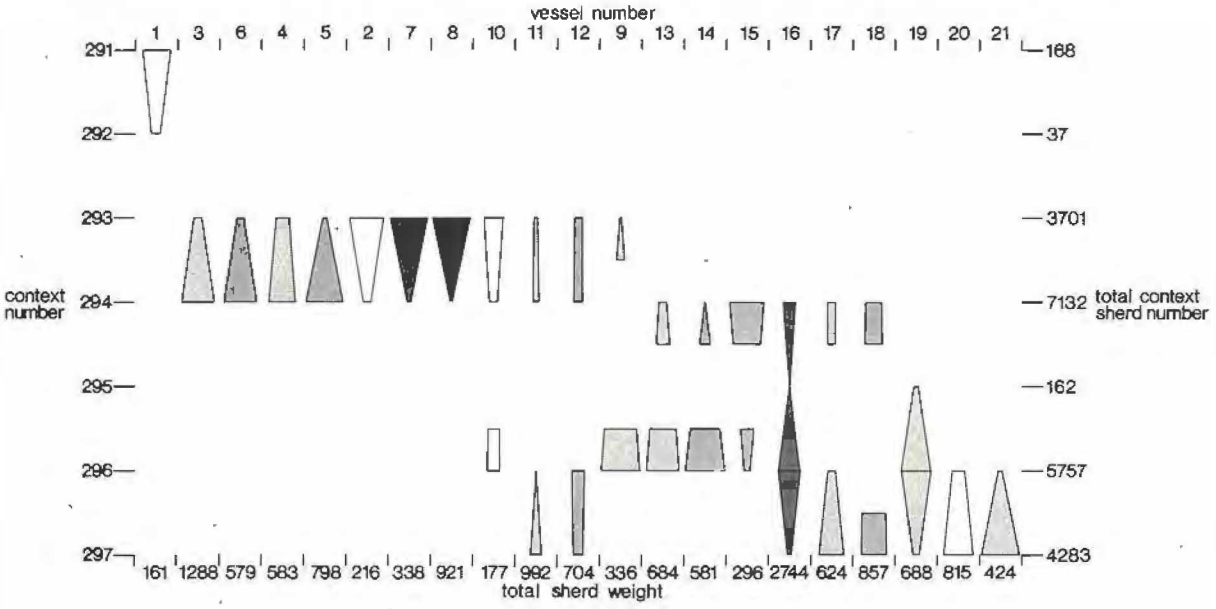
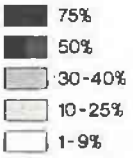


Fig. 1A. Data arranged by weight in vessel numerical order



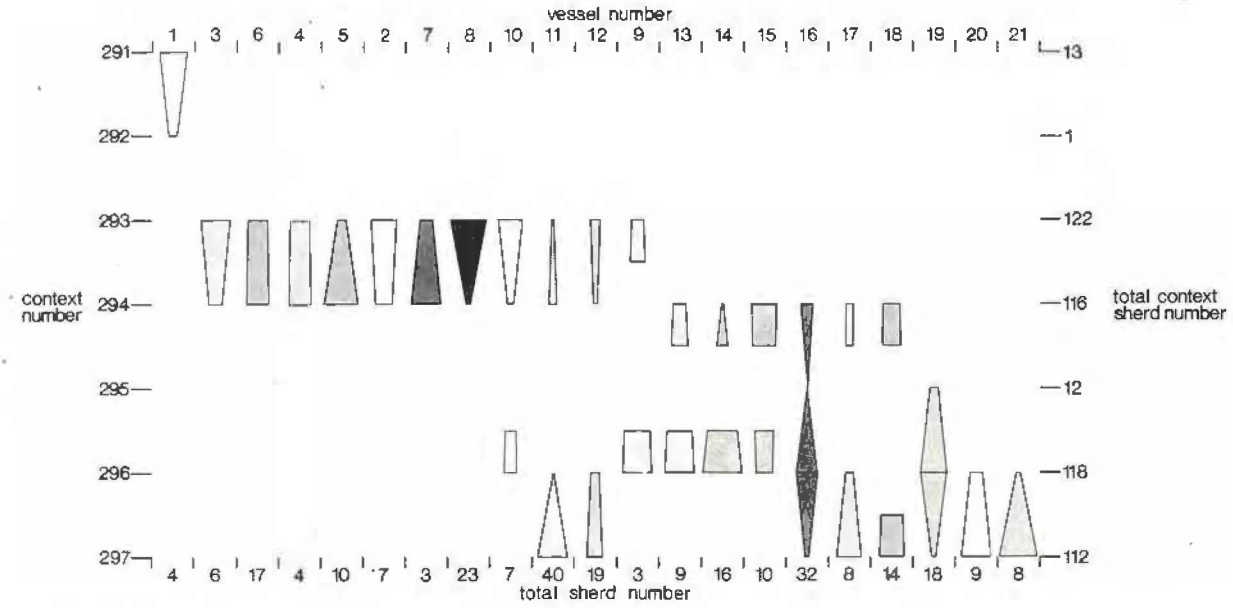


Fig. 1B. Data arranged by sherd number in vessel numerical order

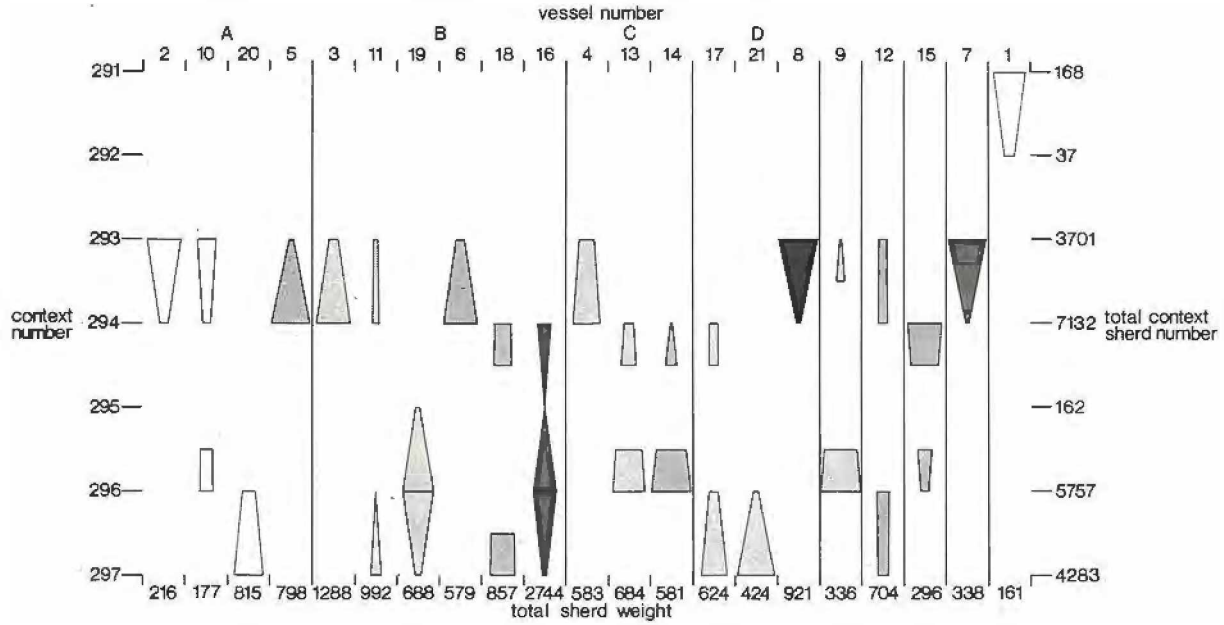


Fig. 2A. Data arranged by weight in vessel-type groups

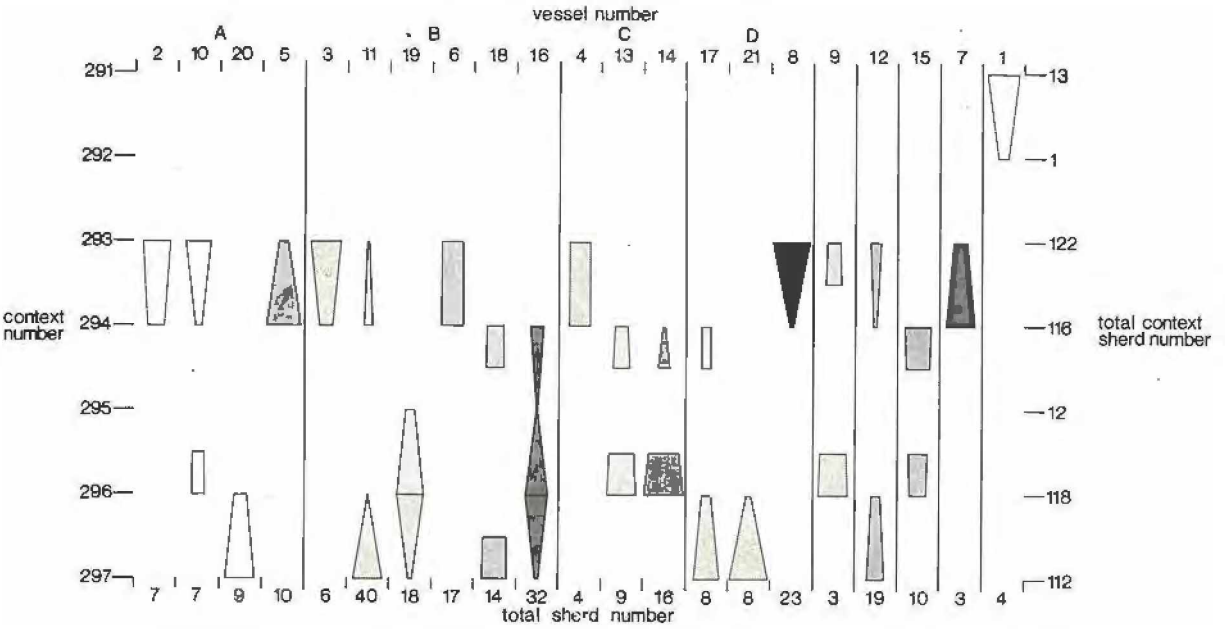


Fig. 2B. Data arranged by sherd number in vessel-type groups

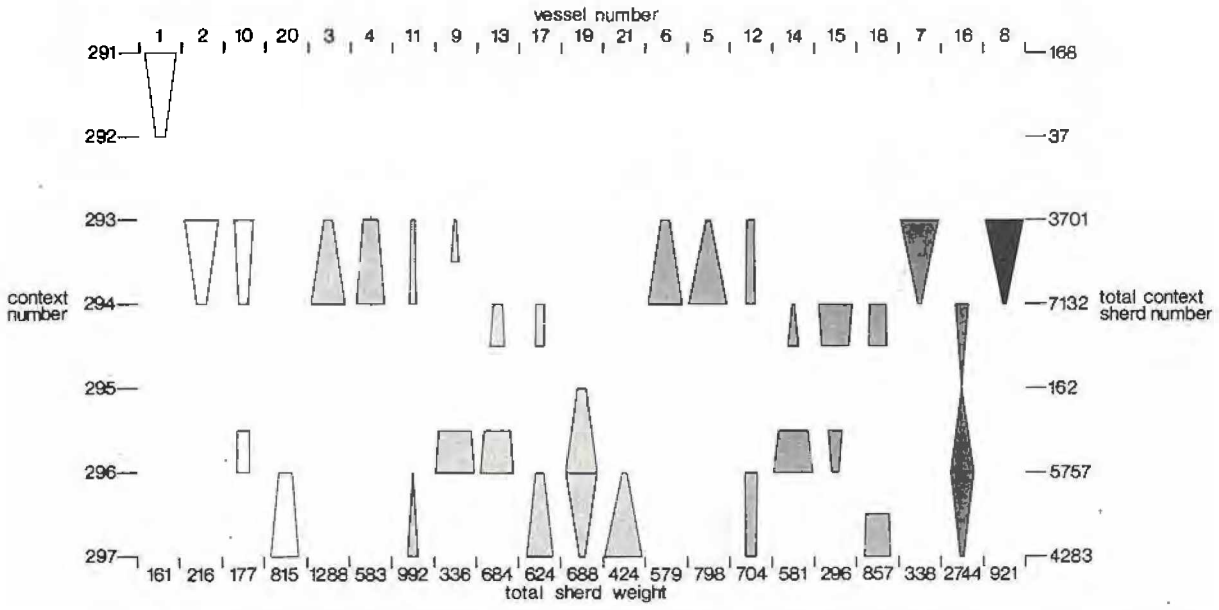


Fig. 3A. Data arranged by weight in surviving proportions of vessels

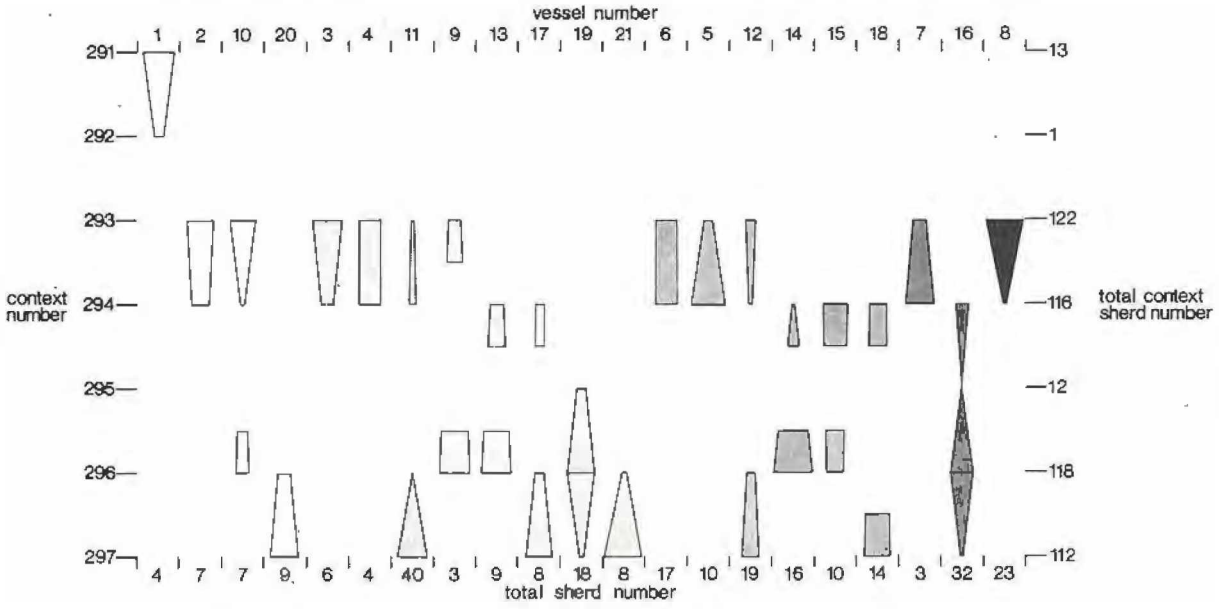


Fig. 3B. Data arranged by sherd number in surviving proportions of vessels

Context Number	291		292		293		294		295		296		297		Totals	
	w	s	w	s	w	s	w	s	w	s	w	s	w	s	w	s
1	76	75	25	25											161	4
2					82	47	18	43							216	7
3					22	67	78	33							1288	6
4					35	50	65	50							583	4
5					12	20	88	80							798	10
6					20	47	80	53							579	17
7					90	33	10	67							338	3
8					92	86	8	14							921	23
9					6	33					94	67			336	3
10					46	58	23	14			31	28			177	7
11					8	5	16	20			1	2	25	73	992	40
12					20	26	23	10			31	22	26	42	704	19
13							23	33			77	67			684	9
14							4	6			96	94			581	16
15							83	60			17	40			296	10
16							33	31	1	3	55	56	11	9	2744	32
17							22	5			19	12	59	62	624	8
18							39	43					61	57	857	14
19									11	22	74	66	15	11	688	18
20											33	33	67	67	815	9
21											12	12	88	88	424	8
Total sherd weight	168		37		3701		7132		162		5757		4283		14806	
Total sherd no.																

w = % sherd weight s = % sherd number

Table 2: a breakdown of the percentages represented on the cross-fit charts. This supports those diagrams and would normally be in microfiche

Group C wheelthrown cooking pots and Group D tripod pitchers. The remainder are single examples of other vessel types; a baluster, a non-local cooking pot, a N. French cooking pot, a saucepan, and a dripping pan respectively. This order is loosely chronological; handbuilt and Scratch-Marked cooking pots do usually pre-date wheelthrown types. It may be seen that the plain handbuilt types mostly survive in smaller proportion than any other vessel type in the core group from contexts A293-A297. They did occur in four of those five layers, however, and vessel 10 had sherds present in three of them. This approach may reveal or discount any vessel type distribution in a cross-fit sequence. Although the same information may be gleaned from Fig. A, by cross-referring to accompanying vessel descriptions and illustrations, printing such a diagram saves time and words. In this example there seems to be no discernible pattern, and any vague stratigraphic or proportional distinctions hinted at by Fig. A are confused and refuted.

The third method illustrated here has the vessels arranged in order of total vessel survival, and within each group of vessels with the same shading they are in stratigraphic order (Fig. 3). This is not a very successful approach in this instance, and these diagrams were not published. In some cases, however, some form of grouping might be observed, and this is another example of how this method of depicting cross-fits is flexible enough to allow the same data to be examined from any angle. The conclusion these figures convey is that this particular group appears to be jumbled up between contexts, that no depositional pattern may be discerned, and that it is likely therefore that the garderobe was filled in in a single operation.

The production of these figures is easy enough and this facility gives numerous opportunities to view a group of cross-fits in many ways. Other approaches might be to arrange vessels according to size, or sherd number, or sherd size. Some lines of enquiry may prove fruitless, but the speed of this method gives the opportunity to try many more than would otherwise be possible. The Southampton recording system quantifies pottery by weight and sherd number (and rim %) as a matter of course and it is not difficult to retrieve the relevant information manually. The process has recently been speeded up by the creation of a computer programme which lists every cross-fit vessel in any given assemblage, giving all the information needed to draw one of these diagrams, though the shading can only be done on inspection of the vessel itself. The next step is to make the computer draw the diagrams too. Different recording systems do not necessarily allow both weight and sherd count to be represented, but it should be possible to draw up one of these diagrams from any ceramic record. This may not be worthwhile ultimately, but this method may be of some interest to researchers who have similar problems to those described here.

REFERENCES

Brown, D.H., in press. 'The Pottery', in J. Oxley (ed.) Excavations at Southampton Castle

Moorhouse, S.A., 1983. 'The medieval pottery' in P. Mayes and L. Butler, Sandal Castle Excavations 1964-1973 (Wakefield), 83-312