
JUSTINIAN, BLUHME AND THE NUMBERS GAME OR HOW PRECISE IS BLUHME'S *MASSENTHEORIE*?

David Pugsley (University of Exeter)

1820 saw the publication of Bluhme's classic article, *The Order of the Fragments in the Digest Titles: A Contribution to the History of the Compilation of the Digest*.¹ It consists of 182 pages of text and three tables with various annexes. The first table, showing the order in which the classical works were read by the compilers, is widely studied and generally accepted. Indeed in the version revised by Krueger it is often accorded the status of holy writ and elaborate mathematical theories have recently been developed from it. Bluhme's theories about the way in which the *Digest* was compiled, in the 182 pages of text, are widely ignored and frequently rejected by those who have studied them.

1 Bluhme's text

Bluhme's text is technical and detailed. It is very difficult to study. Suppose, for example, that we want to know what Bluhme thought about the possibility that there was a further subdivision of work inside each committee at the excerpting stage. Where should we look? There is no index to help us. There is a table of contents at the beginning, but it is an unusual table of contents. First, it does not give page numbers, only section numbers. Secondly, the table of contents does not quite match the contents themselves. There are the same seven chapters and the same 26 sections. But the headings of the first three chapters are slightly different in the table of contents and in the text; the table of contents gives a summary of the contents of each section, while the text is silent; it adds further subdivisions, A and B, and I and II, with summaries, in chapters 1 and 2, which are missing in the text. On the other hand in chapter 6 the text has further subdivisions, A and B, and I and II, with summaries or headings, which are missing in the table of contents. It is clear that the table of contents has not been compiled from the contents themselves, as is usually the case, but that

1 1820 (repr 1997) vol 4 *Zeitschrift für geschichtliche Rechtswissenschaft* 257-472.

both the table of contents and the text itself have been based on some earlier document, perhaps Bluhme's own working plan.²

In fact what we have here is not really a table of contents at all. It is a summary of the contents, and it goes some way to make up for the lack of an index. If, for example, we want to find Bluhme's views on twin texts, a quick glance through the summary will locate them at the end of section 16, though a page reference would have made our life easier (pp 344 – 346). But that does not help us with the possible sub-division of work inside each committee at the excerpting stage, which is not mentioned in the summary anywhere. The answer is on pages 339 – 340. Bluhme rejected the idea for lack of evidence. It is not clear why he dealt with it here in chapter 2, which is concerned with exceptions to the regular order of fragments, rather than in chapter 1, which is concerned with the division into Masses. It is certainly well hidden. Honoré,³ as is well known, disagrees, and his reference to Bluhme's contrary view is relegated to the middle of a footnote (p 151, n 107).

The position is similar for the question whether there was a final revision of the *Digest* at the end of the editorial stage. There is no mention of it in the table of contents. There is no index. There is one throw-away line in Bluhme's outline on page 263: "The Digest does not seem to have received any further revision", without any reference to any more detailed discussion. In fact Bluhme dealt with it on page 352, though still very briefly: "In what we have said so far about individual changes of position we have exhausted all the displacements made by the compilers which disturb the original order of the fragments. Hence the question whether the Digest received any further revision really no longer arises." Again it is not at all clear why this is at the beginning of chapter 4, on the assessment of the compilers' work. It would be better placed in chapter 2, on displacements, or perhaps at the end of chapter 3, on the editorial stage. Here it is completely out of place. Again Honoré disagrees: "Common sense suggests that the first draft must have been revised." And again Bluhme's contrary view is dismissed at the end of a footnote (p 185, n 181): "Bluhme, 257, 263, omits this final recension." *Rejects* would have been a better word, as Bluhme, 352, shows.

2 The German reprint in 1960 vol 6 *Labeo* 50 235 368 leaves out the table of contents altogether. The Italian translation by Conticini (1838) also leaves out the table of contents, but incorporates the headings in it into the text of the article.

3 *Tribonian* (1978).

Which compiler read which Mass? With no help from the table of contents or an index we must make our own search. The answer is on pages 275 – 276: Bluhme had no doubt that Theophilus worked on the Sabinianic Mass. Honoré puts him on the Edictal Mass, with no reference at all to Bluhme's confident, contrary view (p 169).

These are perhaps minor, or peripheral, issues, on which the rejection of Bluhme's views may not matter very much. There remains, however, the central issue about the choice of rubrics and the working methods of the compilers. The standard modern view is often presented as if it were Bluhme's own view, obviously without reference to what he actually said. It is difficult to find because of the inadequacy of the table of contents, the lack of an index, and the fact that the topic is discussed in a number of different places without clear page-cross-referencing. It is interesting, therefore, to go back to the original, to try to piece together Bluhme's thoughts, and to see where they may lead us.

The standard modern view says that the compilers started with a complete list of *Digest* titles and rubrics under which extracts were to be filed.⁴ Honoré is particularly clear: "For the excerpting to begin, two working documents were needed. The first was a list of the ancient works The second working document was a list of titles or subject-headings into which the fragments excerpted were to be distributed" (p 149). There is no reference to Bluhme here, but there is a reference to Soubie,⁵ who held the same view ("Il est probable"), but ended a footnote with the words: *Contra, Bluhme*,⁶ with no further explanation at all. This highlights one of the problems of modern Bluhme scholarship: his views are accepted or rejected, but very rarely discussed.⁷

So what did Bluhme say on this subject? In his outline of his conclusions on pages 262 – 263 there is no mention of preparing a list of rubrics and *Digest* titles before excerpting started, or of filing the fragments under the rubrics in that list. Instead he says: "[W]hat was selected for the future *Digest* was filed

4 Paradoxically Hofmann, so maligned for his attack on Bluhme, thought that the compilers did start off with a framework; see *Die Compilation der Digesten Justinians* (1900) 125. We need to get away from the simplistic Animal Farm attitude to Bluhme and Hofmann: four legs good, two legs bad; Bluhme good, Hofmann bad.

5 *Recherches sur les origines des rubriques du Digeste* (1960).

6 Soubie (n 5) 96 n 4, referring to Bluhme 287: see below.

7 What was *undenkbar* for Bluhme is *probable* for Soubie. Honoré's first working document was not mentioned by Bluhme either. Bluhme said that the compilers divided all the classical works into three groups. That could be done physically. He did not mention a list, or three lists, of books (262).

under some rubric from the Code, or the Edict, or if necessary from the excerpted work itself." It is clear that this is a reference to the existing lists of rubrics, not to a new list.

His thoughts are set out in more detail later on:

It is unthinkable that the compilers had drawn up a complete Schema of all Digest titles before they started excerpting, as too much could only be decided in the light of the content of the excerpted passages. While provisionally following the example of the Edict and the Code, the compilers had to choose a suitable rubric from them during the excerpting stage, or decide to insert a new rubric from Sabinus or other books. (*D.*34 and 35 may be particularly rich in insertions from Sabinus.) How closely they followed the order of the Code will appear from some examples below: s.11 (pp 287 – 288).

The compilers may have wondered sometimes at the very beginning in which title a fragment was to be placed and therefore have left it undecided until a later stage of the work. But apart from that they must often have found in the course of the work that earlier many fragments had not been placed under the right rubric; they therefore transferred them to the right rubric where there was room for them, that is, at the end of the title. It is true that we know very little about the rubrics of the Edict and the old legal works; but there can be no doubt that before its revision the Code contained more than 700 titles, and for the Digest 429 – 433 rubrics were chosen. Among such a large number of rubrics it was impossible always to find the right place straight away; much must have remained to be improved when the three Masses were assembled together. The so-called *leges erraticae*, which must have escaped the attention of the last compiler even at that stage, are certainly only left-overs of much more frequent mistakes (p 297).

In these five Digest titles (*D.*32; 23.2; 1.3; 34.2; 21.2) all three Masses appear twice; in some others that is the case for only one or two Masses. Here either the missing Masses cannot have contained any fragments, or the three committees of compilers must have differed from one another in the choice of rubrics, which would reconfirm the proposition set out above (s. 5) that it was impossible to draw up a fixed Schema of all the Digest titles before excerpting started (p 302).

There are three more Digest titles which must be mentioned here. The same changes have taken place in them, but without the same Mass appearing in two places; for both instalments of the same Mass follow immediately one after the other, and their original separation can only be seen now by the way in which the succession of fragments breaks off and starts again (p 306).

13. D.42.1 has a triple title, *de re iudicata, et de effectu sententiarum, et de interlocutionibus*. The corresponding section of the Code has 17 different titles (C. 42 - 58). The Edictal Mass appears three times in this title, and it seems that the Edictal compilers intended fragments 1 - 14 for the title *de re iudicata* (C. 7.50), fragments 15 - 35 for the title *de executione rei iudicatae* (C. 7.53), and fragments 36 - 39 for the title *de sententiis et interlocutionibus iudicum* (C. 7.45) (p 307).⁸

Bluhme's position was clear. There was no fixed Schema of rubrics before excerpting started. What is not clear is how Bluhme thought that the compilers managed without one. We are not helped by the fact that he deals with the topic partly in section 5, which is expressly devoted to *Choice of Rubrics*, as the table of contents says, and partly elsewhere, sometimes with a cross-reference and sometimes without.

If excerpts were not initially assigned to a *Digest* title (p 297), how were they filed, and how were they brought back into play and assigned to a suitable title later on? Bluhme does not say.

Is it plausible that the compilers may have differed among themselves on the choice of rubrics (p 302) or that the Edictal compilers may have chosen rubrics differently from the others (p 307)? It is true that they were working on different Masses and perhaps in different rooms; but they were all working in the palace, and it would be surprising if they did not discuss their progress with each other formally and informally from time to time.

What, where there was a choice, was the right rubric? And who decided whether or not a fragment had been placed under the right rubric in the first

8 The inscriptions suggest that the break came between fragment 15, Ulpian 3 *de officio consulis*, and fragment 16, Ulpian 63 *ad edictum*. In 16 the inscription says Ulpian, corrected by F2 to *Idem*. That would be explained if 16 was originally the first text of one instalment of the E Mass, but was then placed after another instalment of the same Mass ending with another text of Ulpian.

place? Tribonian? Or the editing compiler of the right rubric? Bluhme does not say.

Perhaps it is true that the compilers were not as well organised as the standard modern theory suggests. That would be a more realistic view, given the size and novelty and complexity of the project. Bluhme may be right, but it seems that he had not thought through this aspect of his theory, which has been generally rejected.

And there are other issues on which modern scholars disagree with Bluhme's views. For Bluhme the distinction between intentional displacements (p 290) and unintentional displacements (p 296) is fundamental. For Mantovani that distinction should be abandoned.⁹

According to Bluhme "intentional displacements are certainly much more frequent at the stage of excerpting the individual Masses than at the later stage of combining those Masses together" (p 336). For Honore "the assumption underlying the present study is that all the displacements of texts from the Bluhme-Krueger order are due to the activity of the commissioners at the time when they drafted the 432 *Digest* titles" (p 174). There is no reference at all to Bluhme's contrary view.

2 Bluhme's table

Bluhme set out his "Table of the three sub-groups of books and the order in which the books in each sub-group were excerpted one after another" practically at the beginning of his article. It was not relegated to chapter 7 with the other tables and appendices. His introductory outline starts at page 260; chapter 1 starts at page 265 and sets out Bluhme's discovery about the order of the fragments in two brief pages, and the Table faces page 266. It is set out on two sides of one sheet of paper which conveniently folds out, so that it is easy for the reader of the article to refer to it at any time. All that is unsurprising, because the whole article is about that Table. The Masses are set out in parallel columns, because Bluhme thought that the Masses were read concurrently, not consecutively (pp 270 – 275). The whole Table is presented in a brief, clear and convenient way.¹⁰

9 *Digesto e masse bluhmiane* (1987) 13.

10 In the *Labeo* reprint the Table appears after s 16, with the Masses set out consecutively rather than concurrently (93-96). The Conticini translation is faithful to the original, and even preserves Bluhme's page-breaks.

Bluhme's account of his discovery is so brief that it can conveniently be set out in full (pp 265 – 266):

Order of excerpting the juristic works.

Division into three Masses.

2. In D.50.16 and 50.17 it is undeniable that the inscriptions follow a regular order. Almost everywhere the series of texts in numerical order show that the original order of the excerpted works has not been altered; and even the different works themselves normally follow each other in the same order in both titles. On this last point there is only the difference that in D.50.16 the books on the beginning of the Edict come first, while in D.50.17 they only appear after the Sabinianic works and Papinian's *quaestiones*. If we then look at D.45.1, we find the same regular order, but the books on the Edict come between Sabinus and Papinian.

In the other Digest titles the only difference in the inscriptions appears at first sight to be that one part of them are in a certain order *inter se*, the other part refers to a miscellaneous collection of books from which the fragments are taken. Closer inspection, however, not only shows that those three main Masses recur everywhere, but leads to the indisputable result that **all** the works which were used in the Digest can be distributed in three groups. The commentaries on Sabinus and the Edict and the works of Papinian appear at the beginning of these groups; we can therefore call them the Sabinianic, Papinianic and Edictal Masses. In each group the different works are always in the same order; and that order is set out in Table I opposite. There are further details and explanation of Table I at the beginning of chapter 7, followed by an alphabetical list of works showing which Mass each work belonged to (pp. 452-6). Table 2 sets out the breakdown of all Digest titles into three Masses of excerpts (pp. 456-68).

The two pages of text and Table I together give the impression that everything was clear and straightforward: as Bluhme says, "undeniable and indisputable".

It is true that in the introduction there is a reference to chapter 2, in which "the exceptions to the rule will be explained according to the various causes for

them" (p 264). In fact chapter 2 goes on for 61 pages, more than a third of the length of the text of the whole article; but there is no mention of that here.

There is also the reference to chapter 7 where the further details are set out on pages 443 to 451, and the explanatory notes to Table I are set out on pages 440 to 443. The same two references to chapter 7 appear in the paragraph on the explanation of the symbols at the top of Table I.

What is missing is a cross-reference to page 439, the first page of chapter 7. It contains a paragraph like the exemption clauses in the small print at the end of a long contract. It would have been better, it would certainly have been less misleading, if that paragraph had appeared on page 266, opposite Table I, with a red finger pointing to it. It is a clear warning that, while parts of Table I are sure, other parts are more or less hypothetical. It is such an important paragraph that we must set it out in full:

Table I includes the titles of all the works which are cited in the inscriptions of the Digest fragments. (Works which only appear in the *Index Florentinus* have of course been left out.) As may easily be imagined, in the case of some works which only appear very rarely, it must be more or less doubtful where they belong. In a few cases even the Mass is doubtful, so that they could be listed in all three or in at least two different Masses. In other cases there are usually very narrow limits within which they must belong. In such cases of uncertainty it seems most natural to follow the same order as the compilers did when they excerpted all the other works: i.e.

- (a) when possible, works should be placed next to other works with similar content;
- (b) they should at least be next to other works by the same author;
- (c) but above all they should as far as possible be placed at the end of the Mass, because they are small and unimportant works and as a rule the compilers excerpted the big and important works first.

A similar point is made very briefly in the small print at the top of Table I, but there is no cross-reference to chapter 7 on this point, and very few people read the small print. "Question marks before the title of a work indicate those works of which it cannot be said with certainty which Mass they belong to. Square

brackets [] enclose works of which it is even doubtful whether they existed, or whether there are excerpts from them in the *Digest*. If the square brackets simply enclose a number with a question mark, the uncertainty only concerns that number" (facing page 266). There are 30 question marks in Bluhme's Table.

It must be clear that Bluhme's Table, while it is verifiably accurate and reliable in broad outline, is not a work of mathematical precision. It is not like a game of Sudoku, in which only one solution is possible. Sometimes there is just insufficient evidence. In that case Bluhme applied his three ancillary rules on page 439, based on content, authorship and size. But these rules too are not always reliable guides. It is true that sometimes works are grouped by content. The commentaries on Sabinus and the Edict are clear examples. But sometimes they are not. The Digests of Julian and Alfenus Varus are in the Sabinianic Mass; the Digests of Celsus and Marcellus are in the Edictal Mass; and the Digest of Scaevola is in the Appendix. There is a group of *regulae* in the Sabinianic Mass; but the *regulae* of Modestinus and Licinius Rufinus appear separately in the Edictal Mass; and the *regulae* of Gaius are in the Papinianic Mass. And the *responsa* of the classical jurists are scattered across all three Masses.

Similarly works are sometimes grouped by author. Papinian is a clear example; so is Julian in the Sabinianic Mass, and Modestinus and perhaps Javolenus and Pomponius in the Edictal Mass. But the works of Ulpian, Paul and Gaius are scattered around in all three Masses. And the idea that in each Mass the works appear in descending order of magnitude is far from the truth: look at the smaller works of Ulpian before Julian's Digest in the Sabinianic Mass, or the four *libri singulares* between the works on adultery and the group of *regulae* in the same Mass; look at the smaller works of Paul before the Digests of Celsus and Marcellus in the Edictal Mass, or Ulpian's three books *de officio consulis* before the works of Modestinus in the same Mass; look at Gaius' *liber singularis de casibus* before the nineteen books of Venuleius on stipulations in the Papinianic Mass. Look at Javolenus' edition of Labeo right at the end of the Sabinianic Mass: it was an important work in ten books: why was it placed last? Indeed was it placed last by the compilers? Why did Bluhme put it there? We repeat: Bluhme's Table is not a work of mathematical precision.

In fact we should stop saying that Bluhme's Table is right. We should say that it is not wrong. It is consistent with the evidence in the inscriptions, but it is not

the only possible reconstruction of the order in which the classical works were read.

Anyone could do that reconstruction himself. Clear the dining room table. Make lots of cards the size of a jam pot label. Write the title of each work on a separate card; and then move the cards around in the light of the inscriptions in the 430 *Digest* titles. In theory there is no problem; in practice we should soon come up against the difficulties which Bluhme faced because of insufficient evidence, and to which he applied his three ancillary rules.

Actually I wonder whether anyone has ever done the whole reconstruction from scratch. My impression is that those who have taken any interest in the subject at all have simply checked the accuracy of Bluhme's list when it conflicted with their own theories or when for any other reason part of it caught their attention. And since Bluhme's Table is not wrong, when it is checked no conflict will show up, and that will confirm confidence in its accuracy, which may not be justified.

Occasionally Bluhme's Table is actually wrong. Some mistakes were pointed out by Krueger in his version of the list printed at the back of the Mommsen-Krueger editions of the *Digest*. But he did not find them all.

As we have seen there are in Bluhme's Table in the Sabinianic Mass four *libri singulares* between the works on adultery and the group of *regulae*. What are they doing there? According to Bluhme's ancillary rule 3, they ought to be down near the end of the Mass. A quick check in *Digest* 23 2 shows that Paul's *liber singularis de adsignatione libertorum* comes after Marcian 4 *regularum*, so that it should be placed after the group of *regulae* and not before them, and the other three *libri singulares* should perhaps go with it.

As an example of a case in which Bluhme was not wrong but may well not have been right, let us take Gaius' *liber singularis de casibus* and Venuleius' nineteen books on stipulations. Bluhme places them next to each other in that order. Again this is contrary to Bluhme's ancillary rule 3. The larger works should be excerpted near the beginning of the Mass and the smaller works near the end. Here Bluhme has put them the other way round with the smaller work first.

Now one way of explaining Bluhme's theory is to say that where fragments from two works appear in the same *Digest* title they normally appear in the order set out in Bluhme's Table. But Gaius' *liber singularis de casibus* and

Venuleius on stipulations never occur in the same *Digest* title. There is therefore no means of knowing in what order they were read. There is clear evidence that they both came between the works of Paul and Hermogenianus on the one hand and Neratius' *responsa* on the other, but as between themselves we cannot tell which order is right. (I should be inclined to put them in the opposite order, Venuleius first and Gaius second, partly because of Bluhme's ancillary rule 3, and partly because Gaius *de casibus* cites Neratius twice and no-one else at all: but the argument is not conclusive.)

That is a simple case with a limited choice. At the end of all three Masses there are a large number of small works which present the same problem but with a much greater variety of possible solutions. Take Paul *liber singularis de adulteriis*, for example. Bluhme places it in the middle of a large group of *liber singularis* by Paul fairly near the end of the Sabinianic Mass, between his *liber singularis de septemviralibus judiciis* and his *liber singularis de senatus-consultis*. But as it never appears in the same *Digest* title as any other member of the same group it is impossible to be precise as to its correct position in Bluhme's Table. In fact there is only one fragment from it in the *Digest*. It is in *D* 48 16, at the end of the Sabinianic Mass, after Macer *de judiciis publicis*, which Bluhme rightly places much higher up. In Krueger's version of Bluhme's Table Macer is at BK 52, and our work of Paul could be anywhere between BK 52 and the end of the Mass at BK 94, or even after BK 94. In fact Krueger puts it at BK 77. That is not wrong, but there is only 1 chance in 42, just over a 2% chance, that it is right.

Bluhme's Table is indeed not a work of mathematical precision. It could not be. He nevertheless decided to include all the works which provided an inscription in the *Digest*; he devised his three ancillary rules; and the rest was pure chance. Perhaps BK 77 simply represents the place where Paul *liber singularis de adulteriis* ended up on Bluhme's dining room table.

Krueger took over Bluhme's list with only minor amendments. He printed the Masses consecutively rather than in parallel columns, though there is no dispute that they were read concurrently. He cut out the notes a - n, and the 30 question marks and the square brackets. He cut out some of Bluhme's doubtful works altogether and left the rest in with no expression of doubt. He incorporated in Bluhme's main Table the details of the sub-divisions of the main works which were read alternately or next to each other by the compilers. That adversely affects the clarity of the Table, which is why Bluhme had left them

out and dealt with them separately; but it increases the impression of precise mathematical detail. And he numbered the items in the Table consecutively through the three (now four) Masses from 1 to 275. The new-look BK *Ordo Librorum* is just as imprecise as the original Bluhme version; but it gives the impression of greater clarity and detail and precision, which is quite misleading. And the consecutive numbering is so convenient for reference purposes that no-one would now think of doing without them.

Even Mantovani,¹¹ who emphasises the weaknesses in Bluhme's list and criticises many of its details, nevertheless adopts the BK *Ordo* for his *Retractatio*,¹² and thereby gives the impression that he accepts and approves of it, when in fact he does not.

Can we do better? Is it possible to explain with greater clarity and precision, or in a different table, the imprecision of the Bluhme and Krueger lists? We think that it is; and the following three tables set out clearly and precisely the imprecision at the end of the three main Masses.

1. The end of the Sabinianic Mass.
2. The end of the Papinianic Mass.
3. The end of the Edictal Mass.

11 (n 9).
12 (n 9) 90-103.

1. *The end of the Sabinianic Mass*

	a	B	c	d	e	f	g	h	i	j	K	l	m	n	o	p	q
1	28	34	43	43													
2	47 Ulpian, 10 books on the office of proconsul																
3	50	51	81	73	79		49										
4				85	80		52										52
5				89			53										
6							54										
7							55									55	
8							56										
9		60				59	60			57	60	60	60	60			
10										58				61		62	
11	70					69	70	70	70		68	63		64			
12						71		71						65			
13									72	72				66			
14							74				74			67	67		77
15							75						84		86		
16														88	87	90	
17															91	91	
18							94	94									92

NB: The following numbers cannot be placed: 48, 76, 78, 82, 83, 93.

There are 10 possible final works: 81, 89, 80, 94, 72, 63, 84, 88, 92, 77.

2. *The end of the Papinianic Mass*

	a	b	C	d	e	f	g	h	i	j	k	l	m	n	o	p	
1	183	205	214	182	207	196	216										
2								219-222. Tryphoninus and Paul									
3	231	250	251	252	256	241	223		227	226	228	235	242	245	253	255	
4							225	225			230						
5								237		233	233	238					
6							239	239									
7							240	240									
8								243									
9						246	246	244									
10						247	248		247								
11						249			249								

NB: The following numbers are unplaced: 224; 229; 232; 234; 236 and 254.

There are 14 possible final works: 231; 250; 251; 252; 256; 249; 248; 244; 233; 238; 242; 245; 253; 255.

3. *The end of the Edictal Mass*

	a	b	C	d	e
1	154				
2	162-167 1.Jul/Pap				
3			168		
4	171		175	175	174
5	172	173	176	177	177

NB: The following numbers are unplaced: 169; 170.

There are 4 possible final works: 172; 173; 176; 177.

In these three tables the numbers are the numbers in the BK *Ordo*. If two works appear in the same column there is evidence that they were read in the order in which they stand in that column. Thus 77 was read after 52 (Sab, col q). If two works appear in different columns there is no evidence as to which order they were read in, unless the two columns contain a common work and the two works appear on opposite sides of that work. Thus, looking at Sabinian columns g and q, 77 was read after 49, but there is no evidence whether it was read before or after any of the works in column g after 52.¹³

At first sight it seems odd to use the numbers in the BK *Ordo*, rather than the numbers of the works in the Florentine Index or the actual names of the works. It leads us to ask questions like: does 68 come before or after 63? and to reply that we do not know whether 68 comes before or after 63 (Sab, cols k and l). That is bizarre, but it does focus attention on the BK *Ordo* and shows just how conjectural it is.

The three tables show clearly the extent of the imprecision in Bluhme's Table I. They can be used whenever we are interested in the order of two works. Does 50 come before or after 77? We do not know. And they can be used to help us decide specific questions, like: Where did Javolenus' edition of Labeo (or at least the first book and a half) come in the Sabinianic Mass? It could have come last; though it is not clear why Bluhme put it there in breach of his own ancillary rule 3. But there are 25 works which could have come after it. All that we can say therefore is that it was one of the last 26 works in the Sabinianic Mass. There is a 4% chance that its place in Bluhme's list is right. Greater precision than that is not possible.

It follows that theories based on the mathematical precision of the BK *Ordo* have only an infinitesimal chance of being correct.

13 Cf Mantovani (n 9) 89, and the paragraph about the asterisks. He draws a comparison with a boat attached to a buoy which is not anchored to the sea-bed. Thus 85 and 89 come after 79, but we do not know whether 79 came before or after 47! See Sab table, col d.