STAGES OF DEVELOPMENT IN SCRIBAL PROFESSIONALISM IN EARLY CHRISTIAN CIRCLES

VOLUME 1. THE THESIS

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Certification

I certify that the substance of this thesis has not already been submitted for any degree and is not currently being submitted for any other degree or qualification.

I certify that any help received in preparing this thesis, and all sources used, have been acknowledged in this thesis.

Alan Mugridge

27th October 2009

Abstract

The intention of this thesis is to test a recent hypothesis that there were three identifiable stages on the way to thoroughgoing professionalism in the copying of Christian texts in Greek in the period from early II AD to the end of IV AD.

Part A proceeds in Chapter 1 by establishing the issue at stake, together with the aim and method of research, in addition to noting in a preliminary way the character of written texts in early Christian circles. Chapters 2 and 3 are generally consciously derivative of modern studies, but also present my own conclusions with regard to certain crucial issues for the survey and analysis of data in Part B (Chapters 4-7). Hence, in Chapter 2 there is a discussion of the identity of writers in Egypt in the early Roman Imperial period, as well as of the character of different scripts; and criteria are proposed to distinguish between MSS copied by professional scribes and those copied by 'occasional writers.' In a more specific way, Chapter 3 proceeds to examine what was involved in the copying of MSS, including an evaluation of the frequently presumed existence of 'scriptoria' in Egypt during this time.

Part B analyses and draws out the significance of the results of my examination of a considerable number of features of MSS of Christian texts from the period II–IV AD, in order to determine whether they were copied by professional scribes or by occasional writers. A catalogue of the MSS used (including some details about them), plates of selected MSS, and Tables containing the detailed data on which the following chapters are based, are given in the Appendices which constitute Volume 2. While not an examinable part of the thesis, that volume provides the raw data on which the following chapters draw for their discussion. Chapter 4 consists of a study of general features, physical form and handwriting quality, concluding with a list of MSS that seem not to have been written by professional scribes. *This list then serves as a basis for the analysis of other criteria in the following three chapters.* In Chapter 5 the page layout of the MSS is studied, and any irregularities or unusual features are noted. This yields a number of lists of MSS probably copied non-professionally, which are compared with the original list at the end of Chapter 4, thus confirming the non-professional status of many of those MSS. Chapter 6 comprises a

study of aids for readers in the MSS, and similarly confirms some MSS as not having been written professionally. In Chapter 7 further features of the MSS relating to the actual writing of these texts are surveyed, showing consistency with the categorisation of items on the original list. The result of this cumulative analysis in Chapters 5-7 of the list of MSS provided at the end of Chapter 4 is that my list of non-professionally copied MSS is largely confirmed. The small number of instances where there is no confirmation from other features examined are not rejected from the list, although they do point to the need for caution in the conclusions drawn. The handwriting of these few MSS was rechecked, and my original assessment was verified.

The chapters in Part B allow the following general conclusions to be drawn. The vast majority of Christian MSS in the period being considered appear to have been copied by professional scribes; the only perceptible general trend over time is a small increase in the use made of such scribes (as against occasional writers). However, it is noticeable that the proportion of MSS copied by professional scribes rose sharply for *some* kinds of texts in IV AD, while *other* kinds were written in greater numbers by non-professional writers. Further, my analysis of *nomina sacra* in Chapter 7 (§7.10) indicates that they cannot serve as proof positive that the copyist was a Christian, so that, strictly speaking, the professional scribes may not have been 'in' early Christian circles. Thus, instead of speaking about the 'development in scribal professionalism in early Christian circles,' which assumes an almost total 'in house' process of MS production, it is more in keeping with the evidence to speak about the use which early Christian groups made of professional scribes and, indeed, to note that this appears to have been the predominant mode of having MSS copied from the beginning. Less professional work appears mainly in the later period, perhaps as more people called themselves Christians and copied works of special significance to them personally; but even this was far less common than the copying of MSS by professional scribes (of unknown religious conviction), especially for certain kinds of texts.

In light of the investigation, it is clear that the hypothesis of a three-stage development in the use of professional scribes in early Christian circles is untenable as too simplistic and, although the evidence that has been analysed here derives almost solely from Egypt, we may conclude that this was the situation everywhere in the Roman world for the copying of early Christian texts.

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Preface

This study arose from an interest in Christian MSS of the NT, as related to my field of teaching at Sydney Missionary and Bible College. My interest was kindled especially in the matter of MS production in antiquity, a subject which is often left out of consideration in the discussion of the text of the NT, even though MSS are frequently referred to. I would like to thank a number of people, without whom this thesis could not have been completed. First, my supervisor, Prof. G.H.R. Horsley, has been a constant guide and source of encouragement, especially when progress was slow. Without his help I would never have been able to continue with the research and bring it to a conclusion. Papers given at a number of Australian and international conferences with his support have proved invaluable in honing my ideas on a number of foundational issues. Prof. G. Stanton, my second supervisor, has also taken time to give encouragement, guidance and feedback along the way.

Many people are owed thanks for facilitating my research during my visit to Europe and Great Britain in 2004, especially those who gave me access to papyrus collections. These include (in order of my visits) G. Poethke (Berlin), D. Hagedorn, J. Cowey and T. Kruse (Heidelberg), R. Daniel (Cologne), A. Hurst and P. Schubert (Geneva), E. Macheret (Cologny), D. Weston (Glasgow), A. Young (Manchester), C. Penney (Birmingham), G. Waller (Cambridge), J. Maldonado (London), N. Gonis (Oxford), H. Whitehouse (Oxford), B. Barker-Benfield (Oxford), C. Ferdinand (Oxford), C. Horton and B. McGing (Dublin).

This thesis would have been well-nigh impossible to undertake in Australia without access to websites which contain images of papyri. The generosity of those institutions which make their collections available via *APIS* in the United States, *CSAD* in Oxford, the Schøyen Collection in Oslo-London, and elsewhere, is acknowledged. Various other individuals provided photographs and permission to use them for my research, particularly G. Bastianini (Florence), R. Pintaudi (Florence), M. Hejnová (Prague), K.-T. Zauzich (Würzburg), H. Harrauer and H. Froschauer (Vienna), K.A. Worp and J.A.A.M. Biemans (Amsterdam), A. Bülow-Jacobsen

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This project was generously assisted by financial assistance given by the University of New England Maiben Davies Postgraduate Scholarship in Greek (2003, 2007, 2009) and the J.H. Bishop Postgraduate Scholarship in Classics and Ancient History (2004); a Faculty Doctoral Research Grant from the Australian College of Theology (2004); and the Ingram-Moore Fund of the Australian Institute of Archaeology (2004). I am also especially grateful to the Principal and Board of the Sydney Missionary and Bible College, where I am on the Faculty, for granting me study leave for a semester just before I enrolled as a part-time, external doctoral candidate and twice during my part-time candidature (2004, 2007), and for providing assistance in travelling to Helsinki (2004) and Ann Arbor (2007) for Conferences of the *Association Internationale de Papyrologues* and my research trip in 2004 to Europe and the United Kingdom.

Finally, I would like to thank some people closer to home, including David Hawley and Scott Tester, some of my students who have helped at times, and especially my wife Wendy and our family, who have given encouragement over the years of my candidature, and without whom this project would not have been possible.

Abbreviations & Sigla

Unless otherwise indicated the following works are used as sources of abbreviations:

Ancient literary authors follow those in *LSJ*[9].

Biblical Studies primary sources and journals, including OT, NT and early Christian works, follow those in the *SBL Handbook of Style* (1999).

Papyrus volumes follow those in J.F. Oates et al., *Checklist of editions of Greek, Latin, Demotic and Coptic papyri, ostraca and tablets* (web edition, Dec. 2008). I use *BL* for papyrus inventory numbers in the British Library, not the Berichtungsliste, despite the strong papyrological focus of this thesis.

Classical journals follow those in *L'Année Phililogique*.

Epigraphic volumes follow those in G.H.R. Horsley and John A.L. Lee, 'A preliminary Checklist of abbreviations of Greek epigraphic volumes,' *Epigraphica* 56 (1994) 129-69

Abbreviations used in this thesis:

ABD	D.N. Freedman (ed.), *Anchor Bible Dictionary* (New York: Doubleday, 1992)
ANRW	H. Temporini et al. (eds), *Aufstieg und Niedergang der römischen Welt* (Berlin: de Gruyter, 1972-1998) 1.1.1-2.37.3
BDAG	W. Bauer, F.W. Danker, W. Arndt, F.W. Gingrich, *A Greek-English lexicon of the New Testament and other early Christian literature* (3rd ed.; Chicago: University of Chicago, 2000)
BNP	H. Cancik, H. Schneider et al. (eds), *Brill's New Pauly* (ET of *NP*; 18 vols; Leiden: Brill, 2002-)
CAH	*Cambridge Ancient History* (2nd and 3rd editions of various volumes; Cambridge: CUP, 1970-2005)
Checklist	J.F. Oates, R.S. Bagnall, W.H. Willis, K.A. Worp, *Checklist of Editions of Greek and Latin Papyri, Ostraca and Tablets* (Atlanta: Scholars Press, 2001[5]), now available at http://scriptorium.lib.duke.edu/papyrus/texts/clist.html (updated, 11.07.2008)
DACL	F. Cabrol et al. (eds), *Dictionnaire d'archéologie chrétienne, et de liturgie* (Paris: np, 1903-1953)
DMA	J.R. Strayer (ed.), *Dictionary of the Middle Ages* (vols 1-13, suppl. 1; New York: Scribner's Sons, 1983-2004)
ECL	Early Christian literature
ET	English translation
GMAW	E.G. Turner, *Greek Manuscripts of the Ancient World* (rev. ed. by P. Parsons; *BICS Suppl*. 46; London: University of London Institute of Classical Studies, 1987)
Johnson, *Bookrolls*	W.A. Johnson, *Bookrolls and Scribes in Oxyrhynchus* (Toronto: University of Toronto, 2004)

LSJ[9]	H.G. Liddell, R. Scott, *A Greek-English Lexicon* (9th ed. by H.S. Jones and R. McKenzie; Oxford: Clarendon, 1940; with Revised Supplement edited by P.G.W. Glare, A.A. Thompson, 1996)
LXX	Septuagint
MS / MSS	Manuscript/manuscripts taken to include papyri and parchment texts
NA[27]	E. Nestle, E. Nestle, *Novum Testamentum Graece* (27th ed. by B. Aland, K. Aland et al.; Stuttgart: Deutsche Bibelgesellschaft, 1993)
NewDocs	G.H.R. Horsley, *New Documents Illustrating Early Christianity* (vols 1-5; Sydney: Ancient History Documentary Research Centre, Macquarie University, 1981-1989); S.R. Llewelyn (vols 6-9; 1992-2002)
NP	H. Cancik, H. Schneider et al. (eds), *Der neue Pauly* (16 vols; Stuttgart: Metzler, 1996-2003)
NT	New Testament
NTTRU	S. Pickering (ed.), *New Testament Textual Research Update* (vols 1-8; 1993-2000)
OCD[3]	S. Hornblower, A. Spawforth, *Oxford Classical Dictionary* (3rd ed.; Oxford: Clarendon, 1996)
OLD	P.G.W. Glare, *Oxford Latin Dictionary* (Oxford: Clarendon, 1968-1982)
OT	Old Testament
PEAL	G.S.R. Thomas, *Papyrus Editions held in Australian Libraries* (2nd ed. by S.R. Pickering; North Ryde: School of History, Philosophy and Politics, Macquarie University, 1974)
PGL	G.W.H. Lampe, *Patristic Greek Lexicon* (Oxford: Clarendon, 1961)
PL	J.P. Migne, *Patrologia Latina* (Paris: Garnier, 1844-98)
RAC	T. Klauser, et al. (eds), *Reallexikon für Antike und Christentum. Sachwörterbuch zur Auseinandersetzung des Christentums mit der antiken Welt* (Stuttgart: Anton Hiersemann, 1950-2007)
Rahlfs, Fraenkel, *Verzeichnis*	A. Rahlfs, *Septuaginta. Vetus Testamentum Graecum. Supplementum. Verzeichnis der griechischen Handschriften des Alten Testaments* (1914; rev. ed. by D. Fraenkel; Göttingen: Vandenhoeck & Ruprecht, 2004)
RE	G. Wissowa (ed.), *Paulys Real-Encyclopädie der classischen Altertumswissenschaft* (24 vols; Stuttgart: Metzler, 1894-1963)
Repertorium	K. Aland, *Repertorium der griechischen christlichen Papyri*, I. *Biblische Papyri*; id., H.-U. Rosenbaum, II. *Kirchenvaeter-Papyri*, 1. *Beschreibungen* (Berlin: de Gruyter, 1976, 1995)
Seider	R. Seider, *Paläographie der griechischen Papyri* (3 vols; Stuttgart: Hiersemann, 1967-90)
Treu/Römer	K. Treu, 'Referat. Christliche Papyri,' I – XVI, *APF* 19 (1969) – 37 (1991); C. Römer, 'Christliche Texte,' I – VIII, *APF* 43 (1997) – 48 (2002), 50 (2004) – 51 (2005)
Turner, *Typology*	E.G. Turner, *Typology of the Early Codex* (Pennsylvania: University of Pennsylvania, 1977)
Van Haelst, *Catalogue*	J. van Haelst, *Catalogue des papyrus littéraires juifs et chrétiens* (Paris: Sorbonne, 1976)
WB	F. Preisigke, *Wörterbuch der griechischen Papyrusurkunden . . . aus Ägypten*, (4 vols; Wiesbaden: Harrassowitz, 1925-93)

Textual sigla used are as follows:

ẠḄ	- letters not completely legible
[AB]	- letters lost from MS but restored by editor
{AB}	- letters wrongly inserted by copyist but cancelled by editor
⟨AB⟩	- letters omitted by copyist but restored by editor
(AB)	- abbreviation in the text resolved by editor
*m.*1, *m.*2	- first hand (*manus*), second hand

Other sigla are:

$\mathfrak{P}^{46}$	- New Testament papyri according to the Gregory-Aland system
[ ]	- Reconstructed data about a manuscript
1, **2-1**	- Code numbers of manuscripts used in this thesis
0001, 0002-1	- Code numbers of manuscripts in the *Catalogue of Manuscripts* (Vol. 2, App. 1 and the CD in the back pocket of this thesis)
Pl. 1	- Plate 1 in Vol. 2, App. 2
pl. 1	- plate 1 in another work cited

Groups of MSS follow those in van Haelst, *Catalogue*, where he assigns each MS a number (from 1 to 1230) based on various criteria, sometimes on the 'first' part of a text included (using the canonical order of texts in the Greek OT and NT). Van Haelst's 'Latin texts' (1202-15) are omitted, as are his 'Creeds' (716-19) and 'Varia' (1191-1201) since they fall outside the chronological parameters of this study and/or are not literary texts. The Groups of MSS included in my database presented in Vol. 2 of this thesis (and referred to throughout Vol. 1) are labelled as follows and explained in Ch. 1 (§1.4a.v).

Group	*Textual content*	*Code Nos (range)*		
A	Old Testament texts	**3**	-	**323**
B	New Testament texts	**331**	-	**565-1**
C	'Apocryphal' texts	**568**	-	**611-1**
D	Patristic texts	**623**	-	**700**
E	Hagiographic texts	**704-1**	-	**715-2**
F	Liturgical & private prayers	**721**	-	**1050**
G	Gnostic & Manichaean texts	**1064**	-	**1071**
H	Magical texts	**1073**	-	**1081**
I	Unidentified texts	**1083**	-	**1190-1**
J	Appended texts	**1224**	-	**1225**

The following abbreviations are used for composite codices in this thesis:

BCV *Bodmer Codex of Visions*
(**648-1**, **654-1**, **1126-3**)

BMC *Bodmer Miscellaneous Codex*
(**138**, **548**, **557**, **569**, **599**, **611**, **678**, **681**, **710**)

CBMC *Chester Beatty Miscellaneous Codex*
(**578**, **579**, **677**)

MMC *Montserrat Miscellaneous Codex*
(**862**, **863**, **864**)

PMC *possible miscellaneous codex*
(**1091**, **1127**, **1159**, **1160**)

Glossary

A number of terms are included in a glossary here, so that their meaning throughout this thesis may be clear. Many of these have been modelled on those provided in Johnson, *Bookrolls*, 341-43.

Apostrophe	Small rounded shape, usually open to the left and placed high and after a letter (e.g. Δ'); also known as *sicilicus*
Book hand	A variety of styles of handwriting, mainly bilinear and with separate letters, *usually* employed for the writing of literary texts; also known as 'literary hand'
Colon	A single point placed after a letter as a form of punctuation, placed in high (˙), middle (·) or low (.) position
Coronis	Design placed in (left and/or right) margin, sometimes quite ornate, indicating the end of a work
Copyist	Anyone engaging in writing, used in this thesis in a neutral sense (like 'writer'), as opposed to 'scribe'
Cursive	A variety of styles of handwriting often with letters tending to be joined, *usually* employed for the writing of documentary texts; also known as 'documentary hand'
Diaeresis	Two points placed horizontally and above a letter (e.g. Ï), mostly I and Y; also known as *trêma*
Dicolon	Two points placed vertically (:) after a letter as a form of punctuation
Diplê	A wedge-shaped symbol (>), normally open to the left, with a small number of different uses
Diplê obelismenê	A *paragraphos* (see below) with *diplê* joined to it at the left end (>——), and having various functions; also known as *forked paragraphos*
Documentary hand	See 'Cursive'
Ekthesis	The projection of the first letter of a line out into the left margin past the beginning of the other lines
Intercolumnar space	The horizontal blank area between columns in a roll or codex
Interlinear space	The vertical blank area between two horizontal lines of writing
KAI compendium	Abbreviation for KAI used in MSS, occurring in a variety of forms, usually K with an appendage
Leading	The vertical distance from the top of one line of writing to the top of the next; in this thesis average leading for each MS is calculated over as many lines as possible
Literary hand	See 'Book hand'
Makron	Horizontal line, often 'superior' (i.e. above a letter)
MOY / COY Compendium	Abbreviation for MOY or COY used in MSS, occurring in a variety of forms
Opisthograph	Manuscript with writing on *recto* and *verso*
Paragraphos	Horizontal line (——), usually placed between two lines of writing to mark a division of some kind in the text
Recto	Side of a papyrus with writing along the fibres (this definition needs some qualification in a few cases)

Scriptio continua	Writing with no spaces between words
Sicilicus	See ‘apostrophe’
Scribe	Trained scribe; also known as ‘professional scribe’
Stichometric count	A tally of the number of ‘lines’ of writing, added usually at the end of the text of the MS
Trêma	See ‘*diaeresis*’
Verso	Side of a papyrus with writing across the fibres (this needs some qualification in a few cases)
Writer	Anyone engaging in writing, used in this thesis in a neutral sense (like ‘copyist’), as opposed to ‘scribe’

Figures

The Figures listed here appear in the Thesis (Vol. 1), unlike the Tables which all occur as Appendix 3 in Vol. 2. In the list of Figures below the first numeral (e.g. '1' in '1.2') indicates the Chapter, and the second (e.g. '2' in '1.2') indicates the number of that Figure in the sequence of Figures in that Chapter. Figures with successive numerals (e.g. '7.5-7') have been listed together for the sake of brevity, so that the description combines the actual descriptions of the Figures in the thesis. The 'Groups' mentioned (Groups A-J) refer to MSS grouped by content, as outlined above (p. xii) and explained in Chapter 1 (§1.4a.v) of the thesis.

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PART A:

CONTEXTUALISING

EARLY CHRISTIAN MANUSCRIPTS

Chapter 1
INTRODUCTORY PARAMETERS

1.1 **Impetus for this study**

It is widely assumed that the reproduction of written works in early Christian circles was, at least initially, an 'in-house' process. In relation to the NT Metzger wrote that 'In the earlier ages of the Church, Biblical MSS were produced by individual Christians.'[1] Aland and Aland concurred that the copying of MSS of Christian works must have been done 'privately by individuals in the early period,' although they allow for the possibility that some professional scribes may have become Christians and then copied scriptures 'at home.'[2] Thus, it is commonly held that from the beginning Christians made no use of 'secular' or 'professional' scribes, but had their works reproduced using whatever pool of copying ability lay within their own ranks – mostly of a private and non-professional nature.

On the other hand, some have suggested that over time Christians established their own 'scriptoria.' On the basis of $\mathfrak{P}^{46}$ Zuntz made the suggestion that there was a Christian scriptorium in Alexandria in the latter half of the second century.[3] Roberts thought it 'not unlikely' that there was a Christian scriptorium in Oxyrhynchus in the late second or the third century.[4] Certainly, from the fourth century onwards the copying of some Christian texts was undertaken with a high degree of expertise, as evident in the extreme regularity of script achieved in *Codex Vaticanus* (IV AD) and *Codex Sinaiticus* (IV AD). Indeed, in about AD 331 the emperor Constantine requested copies of the Bible to be made by professional scribes (καλλιγράφοι; Eusebius, *Vita Const.* 4.36). Even if this shows the presence of a high degree of scribal expertise in some Christian circles at that time (and it is not clear that it does, since we do not know to whom Eusebius entrusted the task), how early was this proficiency developed and what was its source? In fact, was there an increase in

[1] B.M. Metzger, *The Text of the NT* (4th ed. with B. Erhman; Oxford: OUP, 2005) 24.
[2] K. Aland, B. Aland, *The Text of the NT* (German ed. 1989[2]; ET; Leiden: Brill, 1987) 70. J.R. Royse, *Scribal Habits in Early Greek NT Papyri* (Leiden: Brill, 2008) 28, n. 96 catalogues a number of writers who hold this view.
[3] G. Zuntz, *The Text of the Epistles. A disquisition upon the Corpus Paulinum* (London: British Academy, 1953) 273.
[4] C.H. Roberts, *Manuscript, Society and Belief in Early Christian Egypt* (London: OUP, 1979) 24.

scribal professionalism within Christian circles, or was this rather the result of a greater use of the scribal expertise available in society in general?

In relation to this issue, Horsley has suggested that at times Christians may have 'commissioned copies of their texts from a scriptorium which had no special sympathy for them, but undertook the task purely on a commercial basis.'[5] His proposal constitutes one point of his three-stage hypothesis about the development in the reproduction of written works for use in early Christian circles between the late first century and the middle of the fourth century. *First*, copies of their works would have been 'commissioned locally by a congregation on an *ad hoc* basis from established scriptoria.' *Second*, Christians gradually set up their own scriptoria, producing 'in-house' copies 'with growing proficiency.' *Third*, in the fourth century these scriptoria developed into 'highly professional scriptoria which set great store not only by accuracy but also by aesthetic appeal.'[6]

It is this hypothesis that has formed the stimulus for this project. However, as the research has proceeded, it has become clear that the copying of MSS for use in early Christian circles in the Graeco-Roman world is not so easily described or classified into 'stages.' Therefore, while Horsley's three-stage hypothesis provided the stimulus, this thesis has moved beyond this to a wider field, in order to examine what may be discerned in general about the copying of Christian texts in the first four centuries AD. Can we simply presume that they were all normally reproduced 'in-house' until the fourth century? Can we show that they were copied in 'scriptoria,' whether general commercial establishments or specifically Christian ones? Can we prove that such copying developed in definable stages? What does the evidence of the extant MSS themselves indicate in answer to these questions? Indeed, are the very categories used as clear as might appear at first sight?

1.2 **Aim of this study**

The aim of this study, then, is to examine the existing MSS of Christian texts written before the end of the fourth century, in order to analyse features which might show

[5] G.H.R. Horsley, 'Classical MSS in Australia and New Zealand, and the early history of the codex,' *Antichthon* 27 (1993) 60-85, here 74.
[6] Horsley, ibid., 74-76 (all three quotations).

what kinds of writers were responsible for their reproduction. The 'texts' to be studied will not include 'documentary' texts such as letters, since this thesis focuses on the *reproduction* of texts, not the production of MSS which had no ongoing significance. However, a number of MSS are included which contain 'texts' of a more private and personal nature, such as amulets and prayers, which will be able to serve as a comparison in their level of professionalism, since they were more likely produced for one occasion rather than reproduced for posterity. For this purpose, Chs 2 and 3 will survey aspects of the way in which MSS were written and copied by way of background, with a special focus on some issues that are in need of clarification. These chapters provide necessary preliminaries to Chs 4-7 which constitute the heart of the thesis. There we will analyse the Christian MSS from this period in order to investigate the three-stage hypothesis and study what can be learnt about the production of MSS for early Christians during this period. Furthermore, we will attempt to explore whether the professionalism evident in *some* MSS appears uniformly in *all* MSS written in the mid- to late fourth century.

Unlike many (and perhaps most) theses, the thesis presented here is offered with considerable caution. This is not because the author doubts the rightness of the views he presents, but rather because research for a thesis devoted to grading the quality of handwriting to determine ancient writers' professionalism as scribes quickly encounters everywhere the modern literature and vast array of subjective judgment (as is made clear in Ch. 4 (§4.4). This is not to impugn predecessors in palaeography, without whose keen eye and perceptive insight this analysis of early Christian scribal professionalism could not have been undertaken. My enormous debt to my intellectual forebears and contemporaries in this sphere is gladly acknowledged.

Nevertheless, my mathematical training has persuaded me that, given a reasonable sample of texts (albeit fragmentary), certain tests can be applied to the analysis of these MSS which will help us achieve a more – one dare not say totally – objective judgment about the development of scribal professionalism in the papyri produced by and for Christian groups (and perhaps individuals) in the period II–IV AD.

1.3 **Definition of terms**

In this enquiry there are a number of terms which do not have commonly accepted meanings, and for this reason stand in need of definition. The terms discussed below are chosen because they play a vital role in defining the limits of the present investigation and affect the choice of data which forms its basis. These definitions will form a starting point, although more will be said about some of them later on.

a. *'Early Christian circles'*

In this thesis 'early Christian circles' will be taken to refer to those who called themselves 'Christians.' This will therefore include a variety of individuals and groups, and not just those who conformed to a later official definition. Thus, the net will be cast wide, as in van Haelst's *Catalogue*, in order to study MSS containing works which were later classed as unorthodox, such as 'Gnostic' or 'Manichaean' writings, and even certain magical texts with Christian allusions.

b. *'Scribal professionalism'*

'Scribal professionalism' is not an easy phrase to define. The subject of 'scribes' and 'writers' in general in the early Roman Imperial period will be discussed at greater length in Ch. 2. However, at this point it would seem reasonable to take 'professionalism' to refer to a person acting in accord with a tradition – often that of a craft or trade, but sometimes simply the result of a broader education – and so conforming to the norms of that tradition, as generally accepted in the context. The professionalism under scrutiny here is that involved in the production of written texts.

Three issues deserve comment at the outset. *First*, could an individual whose primary occupation was not that of a scribe produce a 'professional' piece of work? While this is possible in theory, it would not have been common in practice, since the professional writer of MSS was normally the one for whom the production of written products of certain kinds had become part of his or her usual (and almost inevitable) practice.[7] Nevertheless, the matter of 'professional scribes' warrants further discussion, for which see Ch. 2 (§2.3).

[7] Cf. R. Altman, *Absent Voices. The story of writing systems in the West* (New Castle: Oaknoll, 2004) 203-04. See also her Ch. 11 on professional scribal practice in terms of its physiology and a learned 'nerve-motor response pattern.'

Second, although the professional scribe might 'normally' produce a professional product, was this always the case? Might not a professional writer have produced a 'non-professional' product on occasion? While this is also possible, we may assume for the moment that it was unusual, for such a professional scribe would not have lasted long in the world of writing employment, if the result of his efforts did not normally exhibit the expected degree of 'professionalism,' even though a small measure of carelessness might at times have been accepted.

Third, there were different kinds of written products which professional scribes were commissioned to write, and different standards expected for certain kinds of writing.[8] Presumably, there was also a difference between writing 'documents' of various kinds and copying out 'literary works' by classical authors or the newer Christian works, although this will be discussed further in Ch. 2 (§§2.2, 2.4). However, 'professionalism' in copying involved conforming to the expectations of society, especially those of the people who commissioned the work. So, a text could be produced 'professionally,' whether it was a tax receipt or *Codex Sinaiticus*,[9] but that professionalism might be evident in various ways, perhaps with more of a focus on standard wording (such as with a tax receipt), and perhaps with the added element of appropriate layout. As we will note in Ch. 2 (§2.3f), the matter of 'regularity' will be one of the major aspects of this study, as its presence is one key indicator of the professionalism of a writer based on his training and practice.

The recent work by William Johnson, *Bookrolls and Scribes at Oxyrhynchus*, is an excellent example of this method applied to aspects of the literary rolls from that site. The present thesis will determine if such a procedure can yield similar results for Jewish and Christian texts, although most of our MSS are not rolls but codices. Thus, we will be looking for the distinction between the regular habits of the professional (and practised) scribe and the more irregular habits of the casual (non-professional) writer, as these are exhibited in the MSS. Whether such habits existed in certain eras

[8] Turner, *GMAW*, 1 refers to a papyrus in the British Library (*BL* Pap. 2110) as well as to the three standards of copying referred to in the *Edict of Diocletian* (col. 7, ll. 39-41), both of which clearly indicate different standards of work.

[9] Altman, *Absent Voices*, 52 gives examples of page layouts suitable for various kinds of written material, depending on what was being copied. Cf. ead., 'Some aspects of older writing systems: with focus on the DSS,' available at http://orion.mscc.huji.ac.il/orion/programs/Altman/_Altman99.shtml [accessed, 30.11.2007] 3.

of our time period, or among certain genres only, or how they are evident and to what degree, will be one of the main aspects of this study.

c. *'Stages of development'*

In light of the various developments within 'Christianity' in the first four centuries, it would seem likely that 'stages of development' in the copying of MSS, if they existed, would almost certainly not have been uniform or immediate. Therefore, they may not be easily discernible, as if each had a discrete and easily identifiable beginning and end. Such 'stages' may have been slow to develop, and hence not noticeable until the situation had changed. Something idiosyncratic may have caught on, or an innovation for the sake of efficiency may have come to be more widely accepted, so that MSS of a later period are different from earlier ones. Changes were probably only ever gradual, so we will need to leave open the possibility that we may not be able to detect *when* a change took place but only that it *had* taken place. Further, the rate of change may have varied, changing at various times in different places and in diverse ways, and only later seeming to come together as Christian communities and individuals communicated with one another and developed similar practices.[10] Therefore, in this study we will need to allow for the probability that any 'stages' are unlikely to have been uniform.

1.4 **Method**

a. *Database of MSS*

i. Rationale for selection

The 516 MSS which form the database for this study were selected in the following manner. J. van Haelst, *Catalogue des papyrus littéraires juifs et chrétiens* was used as a basis, and this was supplemented from the lists by K. Treu and C. Römer,[11] as well as those of 'Testi recentemente pubblicati' in *Aegyptus* (up to 2002). The resulting list of MSS was then trimmed in line with the constraints outlined in sections iii–viii below, but including all relevant MSS published up until the end of 2007.[12]

[10] Altman, *Absent Voices*, 26 refers to the 'mutation' rather than 'development' of writing scripts.
[11] Treu, 'Referat. Christliche Papyri;' Römer, 'Christliche Texte.'
[12] *P.Oxy*. 72.4844 (1 Cor 14.31-34, 15.3-6; IV AD), published in 2008, and *P.Oxy*. 73.4934 (1 Pet 1.23-2.5, 7-12; III/IV AD), published in 2009, both appeared too late to be included. Five fragments of a world chronicle held at Leipzig, which is probably from the first half of II AD and likely to be Christian, is to be published soon in *APF*, but likewise could not be incorporated.

Van Haelst did not include most of the MSS passed down through libraries still in use, such as those of St. Catherine's Monastery on Mount Sinai or the Vatican library;[13] but I have chosen to include these MSS, since they are essential for a complete picture. Certain MSS listed by van Haelst and others were not included in the study because they are not yet edited (e.g. van Haelst No. 1, a lectionary of the LXX in Westminster College, Cambridge).[14] Moreover, some MSS were rejected from the database because editions or photographs proved difficult and finally impossible to obtain.[15] However, some MSS were included in the database, despite the fact that information about them was scanty or photographs unobtainable (e.g. **1224**, *Petrov* 553 a),[16] since there seemed to be enough data on which to base aspects of this study. For the complete catalogue of 516 MSS used for this study see Vol. 2, App. 1, where a selection of their details is given. The accompanying CD includes Vol. 2 as a searchable pdf file for ease of reference.

ii. Code number

The MSS which form the database for this study have been given code numbers based on van Haelst's *Catalogue*, as supplemented by the Treu/Römer lists. For the computer database the numbers assigned by van Haelst were made into four digit numbers by the addition of zeros to the left of the original number, and they have been placed in bold typeface. So, 45 becomes **0045**, and 231 becomes **0231**, etc., as in my *Catalogue of MSS* (Vol. 2, App. 1). However, in the thesis itself (Vol. 1) and in Apps 2 and 3 (in Vol. 2) the van Haelst numbers have been used as they were, but simply in bold type (e.g. **45** and **231**).

Where the Treu/Römer lists added a lower case letter (e.g. '123a' or '697c'), I have used a different system (a dash followed by a number) in order to differentiate thesis

[13] Van Haelst, *Catalogue*, 2.

[14] For this MS see. N. Tchernetska, *Pap.Flor.* 31 (2000), vol. 2, 739. P. Head, 'Fragments of six newly identified Greek Bible MSS in a Cambridge collection. A preliminary report,' *TC* 8 (2003) available at http:// rosetta.reltech.org/TC/vol08/Head2003.html [accessed 5.1.2008] has announced a number of NT papyri, of which only two have been published as yet. A papyrus of part of Leviticus, Shøyen MS 2649, will be published by R. Pintaudi and K. de Troyer in the series *MSS in the Schøyen Collection, Greek Papyri*, vol. 2.

[15] Thus, van Haelst No. 1191 (*SB* 5.7872) proved impossible to locate and its image was unavailable. It could not be located by staff in South Africa, despite extensive research in various locations to which the collection at the Museum of the Cape (Cape Town, South Africa) had gone after reorganisation.

[16] This MS was lost, but was previously listed as F. 301 (KDA) in the Ukrainian National Library, Kiev. See K. Aland, 'Neue neutestamentliche Papyri,' *NTS* 3 (1957) 261-86, here 262-64.

code numbers from the Treu/Römer numbers. So '**-1**' normally represents 'a' and '**-2**' represents 'b,' etc. However, it has not always been possible to coordinate thesis code numbers with the Treu/Römer lists in this way, since the latter only add newly published MSS, whereas my list includes previously known MSS as well, which were not included in van Haelst's *Catalogue* or the Treu/Römer lists. Further, some newly published MSS have not yet been assigned numbers in the Treu/Römer lists; so here, too, there will be a difference. In addition, van Haelst or Treu/Römer changed the number of a MS in a few cases, when a text was subsequently identified. Indeed, for some MSS I have not been able to locate any entry in the van Haelst list. I list below (Fig. 1.1) any code numbers that are not what might be expected, so that, for example, 239a is not **239-1**.

Figure 1.1 **Treu/Römer supplementary numbers differing from possible corresponding thesis MS Code Numbers**

Treu/Römer No.	*Code No.*	*Treu/Römer No.*	*Code No.*	*Treu/Römer No.*	*Code No.*
21a	**21-2**	131a + 133	**133**	949a	**949-2**
30a	**30-2**	239a	**239-2**	1142d	**1142-5**
56a/b	**56**	630a/b	**630-1**	1146a	**1146-2**
77a (Treu)	**77-1**	686a (= 1129a)	**686-1**	1146b	**1146-3**
77a (Römer)	**77-2**	948α	**948-3**		

The MSS on my database that are not assigned numbers in either the van Haelst or Treu/Römer lists are supplied in Fig. 1.2 below:

Figure 1.2 **MSS included in thesis database but not assigned numbers in van Haelst, *Catalogue* (as supplemented by Treu/Römer)**

Code No.						
15-1	**64-1**	**462-2**	**587-1**	**733-2**	**1066-2**	**1126-3**
19-1	**132-1**	**467-2**	**600-1**	**774-5**	**1066-3**	**1126-6**
30-1	**211-2**	**501-1**	**604-1**	**891-1**	**1066-4**	**1135-1**
31-1	**234-1**	**504-1**	**631-2**	**912-1**	**1066-5**	**1141-1**
34-1	**307-1**	**509-1**	**654-2**	**918-4**	**1066-6**	**1149-1**
36-3	**340-1**	**514-1**	**655-1**	**966-1**	**1067-1**	**1149-2**
47-1	**426-1**	**584-1**	**664-1**	**996-1**	**1079-2**	**1150-2**
48-2	**428-1**	**584-2**	**694-3**	**1034-1**	**1080-1**	**1150-3**
61-1	**442-1**	**584-3**	**715-2**	**1066-1**	**1093-1**	**1150-4**

It should be observed that the normal practice in papyrology is to count a papyrus once only, even though it may contain a number of discrete texts (on either one or both sides). However, following the practice of van Haelst's *Catalogue*, the database used for this study has retained multiple entries for single papyri in some cases; but this should not affect the clarity of the discussion, provided it is kept in mind.

Fig. 1.3a below lists those entries for papyri which do derive from the same MS but are included more than once (in different entries).

Figure 1.3a **Code numbers of papyri belonging to the same MS**

Code Nos	*Remarks*
3, **536**	Different hands
44, **559**	Different hands
87-2, **710-1**	Same or similar hands
138, **548**, **557**, **569**, **599**, **611, 678**, **681**, **710**	Four to six different hands (*Bodmer Miscellaneous Codex*)
246-1, **949-2**	Different hands
263, **605**	Different hands
263-1, **698-2**	Different hands
264, **265**	Same hand
269, **624**	Same hand
284, **636**	Same hand
323, **1083**	Different hands
331, **597**	Same hand
336, **403**	Same hand
568, **600**	Same hand
578, **579**, **677**	Same hand (*Chester Beatty Miscellaneous Codex*)
580, **1074**	Same hand
607, **608**	Same hand
648-1, **654-1**, **1126-3**	Six different hands (*Bodmer Codex of Visions*)
672, **1141-1**	Different hands
689, **690**	Same hand
862, **863**, **864**	Same hand (*Montserrat Miscellaneous Codex*)

In some instances, it has been suggested that certain MSS originally belonged to the same codex or roll, but without certainty. Fig. 1.3b below provides a list of those MSS on my database; but due to the lack of certainty, they will be treated as separate MSS in my thesis analysis, except that **1091**+**1127**+**1159**+**1160** will be listed as a 'possible miscellaneous codex' since they are more likely than the others to have belonged to the one codex.[17]

Figure 1.3b **Code numbers of papyri *possibly* belonging to the same MS**

Code Nos	*Code Nos*
362-1, **372**	**659**, **665**
505, **524**	**1091**, **1127**, **1159**, **1160**
522, **526**	**1224**, **1225**
627 (+ van Haelst No. 653)	

In view of the above lists, it might appear that this study would be affected by the separate listing of various parts of one MS (e.g. **264**+**265**), but there are two points to be made in this regard.

[17] Cf. *Repertorium*, II/1, 352-53. They note that many also include *P.PalauRib.Lit.* 14 (van Haelst No. 1158a) and *P.PalauRib.Lit* 15 (van Haelst No. 1158b), but these are commonly dated in V AD.

First, a codex which still contains a number of uncertainties in this respect, and thus about which it would be premature to draw simple conclusions about the various hands from the current state of the codex, is the *Bodmer Miscellaneous Codex*. This codex contains a number of disparate works, and there is no consensus about the exact number of copyists engaged in producing the various parts of the codex.[18] Further, it is not certain that the work was designed as one codex; rather, if we take cognizance of the page numbers of some sections, it appears to be a composite of parts of other codices which were damaged but brought together in one codex at a later time.[19] Thus, even if we attempted to assign only one code number to this codex, because of the variety of the texts which it contains, it would not be easy to place it in a group (based on content) or to know what number to assign it. For this reason, such MSS have been given multiple entries on the database, despite the risk to clarity which that entails.

Second, the number of cases where code numbers do belong to the same MS is not large, and they often include entries from disparate content Groups. So this should not skew the data significantly, provided it is kept in view. In terms of the dating of these MSS, despite the fact that editors have noted that the MSS belong to the same codex, there is sometimes a difference in the dates assigned to the different entries, which makes it difficult to assign a more precise date to the MS or codex. However, even with this in mind, it is notable that the 'start-dates'[20] of all such entries come from the III and IV AD, where the number of MSS is large; so that the data will not be significantly distorted as a result of a few exceptions. So this small number of duplicates, occurring as they do in a variety of genres and in different combinations within those genres and periods, should not materially affect the analysis of the data. See Ch. 4 (§4.1) for a detailed discussion of the contents of the papyri and the order in which their contents appear.

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[18] Perhaps it would be better to treat this as four (or six) different works, but the matter is still under discussion. A possible list of four groups of texts by four different hands is: *m.*1 **138**; *m.*2. **548+557+569+611**; *m.*3 **599+678+681**; *m.*4 **710**.

[19] For a recent discussion of the codex see T. Wasserman, *The Epistle of Jude: Its text and transmission* (*CBNTS* 43; Stockholm: Almqvist & Wiksell, 2006) 30-50. Cf. M. Testuz, *P.Bodm. VII–IX* (Cologny: Bibliotheca Bodmeriana, 1959) 7-9; V. Martin, *P.Bodm. XX* (Cologny: Bibliotheca Bodmeriana, 1964) 7-10; Turner, *Typology*, 79-80; Aland, Rosenbaum, *Repertorium* II/1, 367-69, 374-78 (nn. 5-15); K. Haines-Eitzen, *Guardians of Letters* (Oxford: OUP, 2000) 96-102.

[20] I use the term 'start-date' to denote the earliest date in a date range assigned to a MS. So, a MS dated II/III has a start-date of (late) II. See section vi below in this chapter for a discussion of the dating of MSS.

iii. Material

Van Haelst uses the term 'papyrus' to refer to any MS written on papyrus, parchment, wooden boards, wax tablets, lead tablets, ostraka, paper, or even graffiti (paint on walls, as well as scratched on stone).[21] However, there is quite a difference between writing on 'soft' surfaces such as papyrus, parchment or wooden tablets, and 'hard' surfaces such as ostraka, lead tablets or stone. The strokes are formed in a different way and different writing implements are used (for lead tablets and stone); and the writing area is not formed in the same way (especially for ostraka). For these reasons I have limited the present enquiry to those MSS written on papyrus, parchment, and wooden tablets, which occur in the following frequencies in the analysis in this thesis (Fig. 1.4).

Figure 1.4 **Numbers of MSS on writing surfaces**

	Papyrus	*Parchment*	*Wooden tablets*	*Total*
No. of MSS	409	101	6	516

One result of this selection is that a gold leaf and a silver tablet containing Christian texts do not form a part of this study,[22] since the difference in their material is too great to form a valid comparison.[23] See Ch. 4 (§4.5) below for a discussion of the writing surfaces and quality of the MSS in this study.

iv. Languages and scripts

The MSS included in this investigation are only those which include Greek writing. Certain MSS are labelled 'bilingual,' because they also include material in Coptic, Demotic, Hebrew, Latin or Syriac, whatever the order in which the languages occur. One MS in van Haelst's *Catalogue* (No. 1210) is written in Latin, but forms a part of a 'miscellaneous codex' which contains works in Greek (**862**, **863**, **864**). The latter have been included in this study, but not No. 1210. The thesis does not examine in any detail the material in the other languages, even though the scribal practices exhibited in these may have shown comparable levels of professionalism as those of the Greek parts. The focus of this thesis is on scribal professionalism in the copying of

[21] Van Haelst, *Catalogue*, 1.

[22] For the gold leaf see *P.Paris Cab.Med.* 2693 (a single gold leaf rolled up inside a golden box as an amulet; van Haelst, No. 850); for the silver tablet see *P.Köln* 8.338 (inv. T3).

[23] Aland, *Repertorium* I, 3-4 says that he includes only those specifically on papyrus (and not parchment), but this definition would be quite limiting for the present discussion.

Greek texts for Christian use. The numbers of MSS in my database with other languages as well as Greek are given in Fig. 1.5.

Figure 1.5 **Numbers of MSS containing languages in addition to Greek**

	Coptic	*Coptic & Demotic*	*Latin*	*Hebrew*	*Syriac*	*Total*
No. of MSS	17	1	3	4	1	26

See Ch. 4 (§4.2) for a more detailed discussion of these MSS.

v. Content Groups

The MSS chosen for this study come from a range of literary and sub-literary genres, grouped according to most of the classes employed by van Haelst,[24] and labelled A-J for ease of presentation. Some texts listed by van Haelst, such as private letters, are clearly documentary and are excluded from this study which focuses on the 'literature' of early Christianity. While the letters in the NT were originally 'documentary,' they should be included as part of a body of works (the NT) which was treated as having enduring significance from the inception of the Christian movement, and so are included here. The 'literary' (or 'sub-literary') nature of the texts will be discussed further in Ch. 4 (§4.1) and Ch. 8 (§8.1). Fig. 1.6 below sets out the numbers of MSS in the database, listed, like van Haelst's *Catalogue*, according to the 'first' item included (in canonical order, if they are in the OT or NT), or according to other criteria in each Group; a few MSS span more than one category, but are listed in the same category as van Haelst lists them.

Figure 1.6 **Numbers of MSS by content Groups**

Group	*Textual content*	*No. of MSS*
A	OT	171
B	NT	116
C	'Apocryphal'	39
D	Patristic	54
E	Hagiographic	4
F	Prayers	58
G	Gnostic/Manichaean	14
H	Magical	11
I	Unidentified	47
J	Appended texts	2
Total		516

[24] The considerable continuing impact of van Haelst's *Catalogue* on the study of early Christian papyri makes it the natural *point de départ* for this study, even though his categories are not mutually exclusive. The Groups are listed above in the Abbreviations section at the start of this thesis (p. xii), together with a brief comment about some of van Haelst's groups being omitted from this thesis.

In Ch. 4 (§4.1) we will examine the textual contents of the MSS in these groups, as well as their order of presentation in the case where more than one text is included.

vi. Time limits and dates

There are no extant Christian MSS written earlier than II AD, despite claims to the contrary on the part of a few scholars for some MSS such as **336** and **1094**.[25] MSS are included in the database if their assigned date includes the second, third or fourth centuries AD, even if it extends into the fifth century or later. Jewish MSS written in Greek from earlier times are also included for comparison (see section viii below).

Since this study depends heavily on the dates of the MSS, certain MSS in van Haelst's *Catalogue*, such as No. 1172 (*PSI* 1, p. vi), have been omitted since no date has been assigned by the original editors, or subsequently. Others have been left out of consideration because there is no firm agreement on an early date. For example, *P.Vindob.* G 39756 + Bodl. MS Gr. th. f4 has been dated III/IV by some editors, but the proposed dating has rightly been dismissed as too early by most who have discussed it.

Assigning a date to MSS is not always straightforward, and there are at least two factors which contribute to this.[26] *First*, since internally undated MSS are dated mostly on the basis of handwriting, various editors may assign different dates to the same MS. In a few cases, a MS has been excluded from this study (e.g. *P.Sinai* Gr. New Collection 1, 1B1, 1A1), because the range of dates assigned is so wide (here IV–VII) that the proposed dating of the MS risks being meaningless. I have placed the

[25] Although C.P. Thiede, 'Papyrus Magdalen Greek 17 (Gregory-Aland $\mathfrak{P}^{64}$). A reappraisal,' *ZPE* 105 (1995) 13-20 dated **336** ($\mathfrak{P}^{64}$) to the late I AD, most, e.g. K. Wachtel, '$\mathfrak{P}^{64/67}$: Fragmente des Matthäusevangeliums aus dem 1. Jahrhundert?' *ZPE* 107 (1995) 73-80 and T.C. Skeat, 'The oldest MS of the four Gospels?' *NTS* 43 (1997) 1-34, esp. 26-31, date it later in II AD or even II–III. On the claim by J. O'Callaghan, *Los Papyros griegos de la Cueva 7 de Qumran* (Madrid: Editorial Católica, 1974) and others that 7Q5 (part of **1094**) is a part of Mark's Gospel see S. Enste, *Kein Markustext in Qumran. Eine Untersuchung der These: Qumran Fragment 7Q5 = Mk 6, 52-53* (*NTOA* 45; Göttingen: Vandenhoeck & Ruprecht, 2000); T.J. Kraus, '7Q5 – *Status quaestionis* und grundlegende Anmerkungen zur Relativierung der Diskussion um das Papyrusfragment,' *RdQ* 74 (1999) 239-58; ET, id., *Ad fontes. Original MSS and their significance for studying Early Christianity* (Leiden: Brill, 2007) 231-59. R.S. Bagnall, *Early Christian Books in Egypt* (Princeton: Princeton University, 2009) 25-40 usefully reviews and rightly rejects both of these attempts at early dating and identification.

[26] On the general problem of dating internally undated MSS see Turner, *GMAW*, 18-20; J.P. Gumbert, 'Writing and dating - some general remarks,' *Scriptorium* 54 (2000) 5-8; P. Canart, 'Peût-on dater et localiser les manuscrits grecs?' *Pap.Flor.* 31 (2000) 679-707. For a valuable general discussion of dating Christian MSS see Bagnall, *Early Christian Books*, 1-24.

date limits (start and end) from the earliest to the latest dates assigned to a MS; so some MSS are allowed up to two centuries. Therefore, in this thesis the start-date of a MS has formed the basis of comparison, the apparent looseness of this being offset by retaining the full date range in the *Catalogue of MSS* (Vol. 2, App. 1) and certain data lists in the Tables (Vol. 2, App. 3), and by checking conclusions against these.

Second, it is not always clear what system an editor or author is using, when assigning a date to a MS. Thus, MSS described vaguely as 'late' or 'Byzantine' have mostly been excluded. Even when the date is given more specifically, everyone will not agree what the 'early' ('beginning'), 'middle,' or 'late' ('end') part of a certain century means. The notation 'II/III' and 'II–III' can be particularly problematic: any time within the second or third centuries, or a short period somewhere on either side of AD 200? Editors do not always use these systems in the same way, although a cross-check with the *Leuven Database of Ancient Books* has sometimes helped to clarify what is intended.[27]

In this thesis 'II/III' will be used to refer to a period close to the end of the second and beginning of the third century (i.e. around AD 200), while II–III will refer to a date sometime within the second or third centuries. In the database reproduced in App. 1 (in Vol. 2) each century has been subdivided into five periods of twenty years each, so that II AD is divided into 2AD(1) up to 2AD(5), i.e. [AD 100-119] up to [AD 180-199]. Similarly, 'mid II AD' is given by '2AD(2) to 2AD(4)' (i.e. AD 120-179), since a dating of 2AD(3) (i.e. AD 140-159) denotes only twenty years and is too precise in most cases. Further, 'end II AD' (or 'late II AD') is given as '2AD(4) to 2AD(5),' i.e. AD 160-199. Again, too great a degree of precision would be misleading, as Turner argued, since most dating of undated Greek MSS should allow a fifty-year interval.[28] This way of designating dates has made it possible to assign a date to the MSS, so they could be computer sorted. Where it seemed useful, I have also provided the more conventional form of dating using Roman numerals.

[27] For the *Leuven Database of Ancient Books* see http://www.trismegistos.org/ldab/index.php.
[28] Turner, *GMAW*, 18-20.

With the Jewish MSS included, the tallies for the start-dates of the MSS are as shown in Fig. 1.7, though the reader should bear in mind that the end-date might be within that century or extend further into the following one.

Figure 1.7 **Numbers of MSS by century start-dates**

Start-date	*II BC*	*I BC*	*I AD*	*II AD*	*III AD*	*IV AD*	*Total*
No. of MSS	3	9	4	41	184	275	516

vii. Provenance

The vast majority of the MSS in my database were found in Egypt, but sometimes the find-spot can be given no more exactly than that. Further, MSS may have been moved around within Egypt itself, sent from one individual or group to another. Some of the MSS in the Zenon archive, such as *P.Cair.Zen.* 1.59027 (258 BC), actually derive from Alexandria, even though found in Philadelphia, and this is true for later periods as well. A letter found at Oxyrhynchus (*P.Oxy.* 18.2192, late II AD) provides evidence of private circulation of texts; and another letter (*P.Oxy.* 63.4365, IV AD) shows this happening in a Christian context.[29] It is also certain that MSS were brought to Egypt from elsewhere.[30] Famous examples include two documents recording the sale of slaves, *BGU* 3.887 (AD 151) and *P.Turner* 22 (AD 142), both of which originate from Pamphylia in Asia Minor. For these reasons, the modern find-spot of a MS may have little bearing on a study of the mode of its production.

Nevertheless, there are several points to be made about the provenance of the MSS in the database. Figs 1.8a and 1.8b below give tallies for the find-spots of MSS in the database, where these are certain or probable. If several possible locations are given by editors, such as for the Bodmer and Chester Beatty papyri,[31] these are all included (under 'Certain'), even though this has inflated the totals slightly. Thus, the totals do not present an exact number of MSS, but an approximate number of MSS from various places; but they will serve our purposes here.

[29] Cf. T.J. Kraus, 'Bücherleihe im 4. Jh. n. Chr.: *P.Oxy.* LXIII 4365 – ein Brief auf Papyrus vom Anfang des vierten Jahnhunderts und die gegenseitige Leihe von apokryph gewordener Literatur,' *Biblos* 50 (2002) 285-96; ET, id., *Ad fontes*, 185-206.

[30] E.G. Turner, *Greek Papyri. An Introduction* (rev. ed.; Oxford: Clarendon, 1980) 50-51. Cf. Turner, *GMAW*, 17; Llewelyn, *NewDocs* 7.1-25, 26-47.

[31] Cf. J.M. Robinson, *The Pachomian Monastic Library at the Chester Beatty Library and the Bibliothèque Bodmer* (Claremont: Institute for Antiquity and Christianity, 1990); Royse, *Scribal Habits*, 17-31.

Figure 1.8a **Numbers of MSS by provenance (in Egypt)**

Area – town	*C*	*U*	*Total*
Egypt (general)	211	-	211
Oxyrhynchus	131	8	139
Fayum (general)	23	12	35
Hermopolis	15	3	18
Antinoopolis	11	-	11
Kellis	8	-	8
Sinai	4	1	5
Upper Egypt	4	1	5
Panopolis	3	24	27
Diospolis Magna	2	2	4
Koptos	3	-	3
Qarara	2	-	2
Arsinoe	2	2	4
Tura	1	-	1
Memphis	1	-	4
Middle Egypt	1	-	1
Syene	1	-	1

Area – town	*C*	*U*	*Total*
Lycopolis	1	2	3
Hibeh	1	-	1
Dimeh	1	-	1
Narmouthis	1	-	1
Theadelphia	1	2	3
Fustât	0	1	1
Apollinopolis	0	2	2
Hermonthis	0	1	1
Pabau	0	17	17
Abutig	0	1	1
Aphroditopolis	0	18	18
Herakleopolis nome	0	1	1
Herakleopolis	0	1	1
Karanis	0	1	1
Philadelpheia	0	1	1
Soknopaiou Nesos	0	1	1
Tebtunis	0	2	2
Total			535

C = Certain (but perhaps more than one location) U = Uncertain

Figure 1.8b **Numbers of MSS by provenance (outside Egypt)**

Area – town	*C*	*U*	*Total*
Syria; Damascus	1	-	1
Syria, Dura Europos	1	-	1
Palestine, Nahal Hever	1	-	1
Palestine, Qumran	8	-	8
Palestine, Caesarea	-	1	1
Total			12

While taking into account the fact that there are obviously more entries than MSS due to multiple suggestions for some MSS, what is clear from Figs 1.8a and 1.8b is that about 25% of entries record MSS from Oxyrhynchus,[32] and about 11% are from towns in the Fayum (Arsinoite nome), near the Oxyrhynchite nome. So the data is heavily weighted to this particular area of Egypt due to a variety of factors, both ancient and modern.[33] While this shows that data about MS production is biased to a degree because of the large proportion of MSS from this area, it is also notable that

[32] On Oxyrhynchus see P. Parsons, *City of the Sharp-nosed Fish. Greek lives in Roman Egypt* (London: Weidenfeld & Nicholson, 2007); id., *Oxyrhynchus – a city and its texts. Virtual exhibition: scribes and scholars*, available at http://www.papyrology.ox.ac.uk/P.Oxy./VExhibition/exhib_welcome.html.

[33] R. Bagnall, R. Cribiore, *Women's Letters from Ancient Egypt, 300 BC – AD 800* (Ann Arbor: University of Michigan, 2006) 22-23 note the 'complex process of deposition, discovery and editing' involved in bringing papyri to modern study. On the bias of evidence see R. Bagnall, B.W. Frier, *The Demography of Roman Egypt* (Cambridge: CUP, 1994) 8 on census returns; T. Morgan, *Literate Education in the Hellenistic and Roman Worlds* (Cambridge: CUP, 1998) 39, n. 137 on school texts; R. Cribiore, *Gymnastics of the Mind. Greek education in Hellenistic and Roman Egypt* (Princeton: Princeton University, 2001) 77, n. 9 on documents and letters.

for about 40% of MSS no more is known about their provenance than that they come from Egypt, assuming that they were not brought to Egypt from elsewhere. Hence, given the way in which MSS are known to have been transported within Egypt, and even to Egypt from another place, and noting the large number of MSS of undesignated provenance within Egypt, it would seem reasonable to use this sample of largely Egyptian MSS as the basis for a study of MS production in Egypt in general and in the wider Roman Empire.[34]

viii. Description of MSS as 'Christian' and 'Jewish'

As we noted above, MSS have been included in the database for this study if the content can be seen as coming broadly under the rubric 'Christian,' taking this term as inclusively as possible. So, some MSS are omitted because there is no clear evidence, however slight, that they had a Christian origin.[35] For example, *BKT* 9.22 (II/III AD) is given the title 'Prose (Christian text?)' by the editor; but without further information it is difficult to see any basis for the suggestion that it has a Christian background. However, some MSS are included on my database, even though there is some doubt about the author or commissioner being 'Christian.' These mostly occur in those MSS listed in Group F (Liturgical and private prayers, i.e. amulets, etc.) and Group H (Magical texts).

Further, van Haelst's *Catalogue* includes a number of MSS which are certainly of Jewish origin, as well as others which have been thought to be Jewish by some. Since they already appeared in van Haelst's *Catalogue*, it seemed best to retain them in the database for the sake of comparison, along with those published subsequently. Their occurrence is noted in the *Catalogue of MSS* (Vol. 2, App. 1) by adding '**J**' to their code number; and the '**J**' is also included in Vol. 1 from now on, wherever the relevant Code Nos are referred to. The total numbers of MSS in question appear in Fig. 1.9 below.

[34] Cf. Morgan, *Literate Education*, 53-63. However, W.V. Harris, 'Literacy and Epigraphy, I,' *ZPE* 52 (1983) 87-111, esp. 97, points out that differences must have existed in literacy in Greek (and probably also in MS production) between areas of limited Hellenisation like Egypt, on the one hand, and mainland Greece and Macedonia.

[35] E.A. Judge, 'Selection criteria for the *Corpus Papyrorum Christianarum*,' *PapCongr.* XVII (1984), vol.1, 117-22 discusses a similar issue. Cf. Horsley, *NewDocs* 4.58-63 on the criteria for identifying letters as having been written by Christians.

Figure 1.9 **Numbers of Jewish MSS (by century start-dates)**

Start-date (century)	*II*	*I BC*	*I AD*	*II*	*III*	*IV*	*Total*
No. of Jewish MSS	3	9	4	-	1	1	18
Total no. of MSS	3	9	4	41	184	275	516

Hence, there are only two certainly Jewish MSS (**167 J** III–IV, **996-1 J** IV/V), which come from the main period of this study (II–IV AD), so this should not affect the comparisons to a significant degree, since there are a large number of MSS listed in that period. Although there are sixteen MSS from II BC to I AD, and thirteen of these are in Group A (OT MSS), they also should not affect our analysis if their dates are kept in mind. There are some MSS that may be Jewish in the period from II AD to IV AD, but they remain precisely that – only *possibly* Jewish – and they will not be taken as such for the purposes of this study (cf. Ch. 7, §7.9).

It is still a pressing and mostly unresolved question as to how to decide if a MS is Jewish or Christian,[36] partly because the issue of the nature of Jewish groups who identified with Christianity during this period (and what MSS may have belonged to them) is still a matter under discussion.[37] Therefore, it should not be too easily assumed that a MS with 'Jewish' features must necessarily not be of 'Christian' origin. Further, the assumption that Jews stopped using the Greek OT almost as soon as the Christian movement became noticeably separated from them is not as easily established as scholars used to assume. Some MSS (**695**, **696**, **697**) contain texts of Philo, but these were probably copied and preserved by Christians, since at least the first two contain instances of Christian *nomina sacra*. The use of *nomina sacra* as a criterion to distinguish one from the other will be investigated further in Ch. 7 (§7.10). In terms of their content Groups (Groups A-J), Fig. 1.10 sets out the numbers of MSS that are certainly Jewish.

Figure 1.10 **Numbers of Jewish MSS (by content Groups)**

Group	*A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*Total*
No. of Jewish MSS	14	-	-	-	-	2	-	-	2	-	18
Total no. of MSS	171	116	39	54	4	58	14	11	47	2	516

[36] See K. Treu, 'Die Bedeutung des Griechischen für die Juden im römischen Reich,' *Kairos* 15 (1973) 123-44. Cf. R.A. Kraft's numerous contributions to this issue, especially 'From Jewish scribes to Christian scriptoria? Issues of continuity and discontinuity in their Greek literary worlds,' available at http://ccat.sas.upenn.edu/rs/rak/earlylxx/SBL2004.htm [accessed 30.11.07].

[37] Cf. A.H. Becker, A.Y. Reed, *The Ways that Never Parted* (Minneapolis: Fortress, 2007[2]); M. Jackson-McCabe (ed.), *Jewish Christianity Reconsidered* (Minneapolis: Fortress, 2007); O. Skarsaune, R. Hvalvik (eds), *Jewish Believers in Jesus. The early centuries* (Peabody: Hendrickson, 2007).

Thus, the most common Group of MSS including Jewish MSS is Group A (OT), but even here there are only 14 out of a total of 171. In groups F and I a small minority of MSS are known to be of Jewish origin. Therefore, it would seem appropriate to retain the Jewish MSS in the database, especially keeping in mind those in Group A (OT). Jewish MSS will normally stand out because of their start-date (II BC – I AD), except for **167 J** (III–IV AD) and **996-1 J** (IV/V AD).

Since Christianity arose from within Judaism, we might expect that scribal habits in Christian texts would reflect those in Jewish texts, but it will be shown here that there are few distinctives in Jewish MSS written in Greek in comparison with other MSS from the wider Roman world, aside from the care taken to reproduce their Scriptures. This is not different in principle from the care taken to produce literary rolls and codices for both non-Christian and Christian people. Therefore, for the purposes of comparison, the Greek Jewish MSS written up until the end of the fourth century AD will be compared with the Christian ones, including Jewish MSS from Judean and other sites outside Egypt.[38]

b. *Comparison with contemporary papyri*

In order to examine and analyse the features present in Christian (and Jewish) MSS, it is relevant to have in mind the broader context, that is, the copying of literary works in the Roman world. This has been addressed in this thesis partly by drawing on a number of significant modern works. The most important in this regard have been G. Cavallo, *Ricerche sulla maiuscola biblica* (2 vols; 1967); R. Seider, *Paläographie der griechischen Papyri* (3 vols; 1967-90); E.G. Turner, *Typology of the Codex* (1977); O. Montevecchi, *La papirologia* (1988[2]), and W.A. Johnson, *Bookrolls and Scribes in Oxyrhynchus* (2004). The palaeographic descriptions available on the *APIS* database have been used, especially in Ch. 2 and Ch. 4 (§4.4). E.G. Turner, *Greek Manuscripts of the Ancient World* (rev. ed., 1987) and K. McNamee, *Sigla and Select Marginalia in Greek Literary Papyri* (1992) have been useful in the general study of scribal practices in Roman period literary papyri. R. Cribiore, *Writing, Teachers and Students in Graeco-Roman Egypt* (1996) has also been important for this study,

[38] See H.M. Cotton, W.E.H. Cockle, F.G.B. Millar, 'The papyrology of the Roman Near East: a survey,' *JRS* 85 (1995) 214-235 for a survey of papyri. Cf. E. Tov, *Scribal practices and approaches reflected in the texts found in the Judean desert* (Leiden: Brill, 2004) 299-315, esp. Apps 4 and 5.

particularly in relation to writing in Graeco-Roman Egypt as well as for clear and concise palaeographic description. The articles in G. Cavallo, E. Crisci, G. Messeri, R. Pintaudi (eds), *Scrivere libri e documenti nel mondo antico* (2 vols; 1998) (= *Pap.Flor.* 30) have also proved invaluable, as have those in A. Blanchard (ed.), *Les débuts du codex* (1989). Two books which are highly relevant to this study but unfortunately appeared too late to be utilised are R.S. Bagnall (ed.), *The Oxford Handbook of Papyrology* (2009), especially the chapter by David Martinez on 'The Papyri and early Christianity,' and W.A. Johnson, H.N. Parker (eds), *Ancient Literacies. The culture of reading in Greece and Rome* (2009). Selected plates of MSS have been included in Vol. 2, App. 2, for the sake of a visual comparison of certain Christian papyri with a range of papyri that are not Christian but which fall within the same periods and exhibit similar levels of scribal professionalism.

c. *Limitations of the data*

The data for this study is limited in a number of ways. It is obvious that these MSS represent only a small fraction, both in number and perhaps also in range, of all the texts which must have existed but have since perished; and it should be borne in mind that, despite the sizable number of MSS involved in this study, any conclusions are thus based on this limited sample.

Further, a MS may represent only a part of a work which was originally more extensive. Hence, drawing conclusions from only a part of the full MS, whether codex or roll, needs to be done with caution, especially if based on the statistical occurrence of certain features. Reconstructions extrapolated from lacunose texts sometimes prove problematic when a further fragment comes to light. A case in point is *P.Köln* 5.214, a small fragment of *P.Bodm.* II, whose publisher showed that some aspects of the *P.Bodm.* II edition were incorrect. Further, the information provided by editors does not always contain some details. For example, fibre direction is mostly provided now, since it is recognised to be an important aspect of the description of papyri; but earlier publications did not always include it. However, despite the fragmentary nature of many MSS and the limitations thus imposed, the proposed investigation is of value, provided close attention is paid to detail. The integrity of this study, then, stands or falls on the thoroughness with which the minutiae in the 516 selected MSS are

scrutinised. This level of detail for that number of MSS yields sufficient data to allow the cautions raised here to be addressed.

d. *Features examined*

The published editions of MSS (including any plates) are the basis of this study. During the course of a research trip to Europe and the United Kingdom in 2004 I examined papyri in over a dozen institutions. For MSS elsewhere, images and information available on the internet or photographs purchased or viewed in editions of MSS form the basis of the descriptions in this study. The following features of each MS are noted in the database, as far as possible. They are briefly listed below, although Chs 4-8 will record and discuss those features of the MSS in the database most relevant for this study. The factors noted about each MS were chosen because, if the professionalism of their production is to be traced anywhere, it will be in these features - their frequency of occurrence and any trends observable over time, as well as the similarities and differences exhibited among early Christian MSS in comparison with Jewish and Roman MSS in Greek.

The *physical form* of each MS is noted, including its material (papyrus, parchment, wood), quality and colour, if known. Its form (codex, roll, sheet, wooden tablet) is recorded, as well as the (perhaps reconstructed) size of the original roll or codex. Any data about the number of pages (or columns) in the extant and original MS is noted. Information is recorded about whether writing occurs on the one or both sides of the MS (recto/verso, hair/flesh), and in what order they were used.

As for the *written form* of the MSS, the script is recorded, including its size and style. Average number of letters per line, and whether sense lines are used, as well as numbers of lines per column and interlinear spacing, are also noted. Any intercolumnar space is given, along with the size of the writing area and margins, as well as the number of surviving lines. The number of columns per page (of a codex) is noted, in addition to any pagination. Information about the scribal hands is also recorded. Finally, notes are made of the presence and style of titles, *nomina sacra* and other abbreviations, page numbers, paragraph notation, quire signatures, punctuation, numeral system, manner of reproduction, notable readings, alterations and other hands involved in producing the MS, and any other features deemed worthy of remark.

Each of these aspects of the physical and written form of the MSS will be explicated in detail in Chs 4-7. From an examination of the data it emerges that there are consistent patterns in features of the MSS, which are similar enough for us to make a decision about the professionalism of the writers who copied them in the vast majority of cases.

e. *Notable modern contributions relevant to this study*

We noted above (§1.4b) a number of works which have been crucial to this study from the fields of palaeography and papyrology. Other works that have been particularly important for this study are J. van Haelst, *Catalogue des papyrus littéraires juifs et chrétiens* (1976), K. Aland, *Repertorium* I (1976), id., H.-U. Rosenbaum, *Repertorium* II/1 (1995), J.K. Elliott, *Bibliography of Greek NT MSS* (2000[2], with two supplements) and D. Fraenkel's revision of A. Rahlfs, *Verzeichnis* of Septuagint MSS (2004). J. Royse, *Scribal Habits in Early Greek NT Papyri* (2008) is a remarkable study of the singular readings in some MSS in my database, but does not intersect with this thesis in a major way.

1.5 **Written texts in early Christian circles**

The importance of written texts in early Christian groups is apparent from the fact that writers like Lucian noted their preoccupation with books (*Peregr.* 11-12).[39] In order to set the copying of MSS in early Christian circles in context, I review briefly the place of written texts in those communities, in relation to which several points deserve comment.

a. *Character*

In line with their origins in Judaism, early Christians gave the OT an authoritative role, so that almost all of the NT writings allude to or cite the Greek OT. The OT continued to be referred to, and the papyri containing OT texts provide evidence of its use by church groups in Egypt. Further, letters reputed to be from early leaders were preserved, along with other works, and were cited frequently by Christian writers in

[39] Cf. H.Y. Gamble, 'Literacy, liturgy, and the shaping of the NT Canon,' in C. Horton (ed.), *The Earliest Gospels. The origins and transmission of the Earliest Christian Gospels. The contribution of the Chester Beatty Gospel Codex 𝔓[46]* (*JSNTSS* 258; London: T. & T. Clark, 2004) 27-29.

the second century.[40] Narratives ('Gospels') of the life of Jesus were also collected. Later, other works were composed,[41] including those belonging to such groups as the followers of Mani.

b. *Function*

The OT was read publicly in Jewish synagogues (e.g. Luke 4.16-21; Acts 13.14-16), and so also in Christian meetings (1 Tim 4.13; Eusebius, *H.E.* 4.23).[42] Letters from certain authorities were to be read when Christians met (Col 4.16; 1 Thess 5.27; Rev 1.4-5; 22.17-18, 21). Justin Martyr mentions the reading of the ἀπομνημονεύματα of the apostles and the συγγραφαί of the prophets μέχρις ἐγχωρεῖ ('as long as time permits'), which was normally followed by an exhortation (*Apol.* 1.67).[43] Further, Christians appealed to the OT in the defence of their faith or to refute those with different views on certain matters.

c. *Survival*

The widespread use of this written material is shown by the existence of papyri from many parts of Egypt, which contain numerous parts of the OT and NT, as well as other works, from the second century onwards.[44] However, at least three factors militated against the survival of Christian works in the early centuries.

i. Destruction by accidental loss

Many early Christian works must have vanished by chance. Any copies of the *Gospel of the Egyptians* were lost, so it is known only from citations in patristic writers. Many works, such as the *Gospel of Thomas* (cf. **593**, **594**, **595**), were previously known to have existed in Greek, but have only been rediscovered comparatively

[40] See J.B. Lightfoot, J.R. Harmer, *The Apostolic Fathers. Greek texts and English translations* (rev. ed. by M.W. Holmes; Grand Rapids: Baker, 1999) 604-05.
[41] See B.D. Ehrman, *The Apostolic Fathers* (2 vols, *LCL* 24-25; Cambridge: Harvard University, 2003). For other collections see J.H. Charlesworth, *The Old Testament Pseudepigrapha* (2 vols; New York: Doubleday, 1983, 1985); J.K. Elliott, *The Apocryphal NT* (Oxford: Clarendon, 1993).
[42] M. Hengel, *Die Evangelienüberschriften* (*SHAW* phil.-hist. Klasse, Jahrgang 84, Ber. 3; Heidelberg: Winter, 1984) and *Studies in the Gospel of Mark* (ET; London: SCM, 1985) 64-84 suggests that the titles of the Gospels were used when reading them in public.
[43] Cf. J.A. Lamb, 'The Place of the Bible in the Liturgy,' in P.R. Ackroyd, C.F. Evans (eds), *The Cambridge History of the Bible*, vol. 1, *From the Beginnings to Jerome* (Cambridge: CUP, 1970) 563-86.
[44] On the spread of Mark's Gospel, for example, see D. Limongi, 'La diffusione dei vangeli in Egitto (Secc. I-VIII): Osservazioni sul *Vangelo secondo Marco*,' *Anal.Pap.* 7 (1995) 49-62.

recently in Egypt. Other texts, such as *P.Egerton* 2 (**586**), were hitherto unknown.[45] Though we do not know why all of these disappeared, a proportion of them must simply have been lost by accident.

ii. Collection and censorship from 'within'

The collecting of valued books in early Christianity is attested from the beginning, and continued during the following centuries. Thus, **497** (*P.Beatty* III, Pap. 2; $\mathfrak{P}^{46}$) is clear evidence of one such collection in the second century, and it is most unlikely to have been the only one. The *Bodmer Miscellaneous Codex* is a later, intriguing 'mixed' collection.[46] However, the process of the collection of authoritative books went hand in hand with the rejection of books deemed not to be authoritative. Serapion rejected the *Gospel of Peter* as unsuitable to be read in church (Eusebius, *H.E.* 6.12), and Origen indicates some hesitation about the teaching in the *Gospel of the Hebrews* (*Comm. Jo.* 2.12). So, a list of acceptable and authoritative books developed.[47] By implication, those which stood outside that list, such as the works of Marcion,[48] were not given the same authority and credence by most, although the boundaries of this list were disputed for centuries to come. As a result, many books were apparently abandoned by official orthodoxy and sometimes lost for good, unless they were found during the course of modern archaeological discovery. Thus, fragments of the *Gospel of Peter* referred to above were only rediscovered during the course of excavations at Achmîm in 1886-87.[49]

iii. Destruction from 'outside'

Christian works were sometimes deliberately destroyed by opponents. In an edict of 23rd February AD 303 Diocletian decreed that all Christian books of the Scriptures and liturgy be burnt, and Eusebius himself witnessed the destruction of Christian scriptures: τὰς δ' ἐνθέους καὶ ἱερὰς γραφὰς κατὰ μέσας ἀγορὰς πυρὶ παραδιδομένας (*H.E.* 8.2.4-5; cf. id., *Mart. Pal.*, Pref. 1; *Vita Const.* 3.1.4;

[45] Elliott, *Apocryphal NT*, 37-40. See A. Millard, *Reading and Writing in the Time of Jesus* (Sheffield: Sheffield Academic Press, 2000) 17-22 on the various 'Fates of Books.'
[46] This comprises *P.Bodm.* V, VII, VIII, IX, X, XI, XII, XIII and XX. The *Crosby-Schøyen Coptic Codex* (Schøyen MS 193) is another mixed (or composite) codex.
[47] Athanasius, *39th Festal Letter* (AD 367) gives a list of the 'canon' of both OT and NT.
[48] On reactions to Marcion as a stimulus to clarify the canon see B.M. Metzger, *The Canon of the New Testament* (Oxford: Clarendon, 1987) 90-99.
[49] U. Bouriant, 'Fragments du texte grec du livre d'Énoch et de quelques écrits attribués à Saint Pierre' *MMAF* 9.1 (1892) 137-42.

Lactantius, *Mort. Pers.* 12.2).[50] The account of the martyrdom of Agape, Irene and Chione refers to ὑπομνήματα ἢ διφθέραι ἢ βιβλία, which were subsequently burnt (cf. Augustine, *Cresc.* 3. 29.33, 4. 56.66). Thus, many Christian books must have been destroyed as a result of the Imperial policy, although the inconsistency with which this was applied in different provinces was likely to have been a factor in their survival.

1.6 **Conclusion**

This introductory chapter to the thesis has necessarily been rather extended because the content of my database had to be clarified. The detailed information (frequently minutiae of scribal practice) which the database contains provides the raw material for analysis: the chapters in Part B of the thesis provide that analysis systematically. Before that is done, however, two further chapters in Part A are designed to provide at a broader level a control for the detailed analysis, and to discuss a number of key issues that bear on the topic in hand. It is to the first of these that we now turn in Ch. 2: writing styles and 'professional' and 'non-professional' writers in early Roman Imperial Egypt.

[50] See also H. Musurillo, *The Acts of the Christian Martyrs* (Oxford: Clarendon, 1972) 281-93; J. Stevenson (ed.), *A New Eusebius* (London: SPCK, 1968) 287-89. Metzger, *Canon*, 107, n. 75 notes that Christians were viewed as practising magic, and thus by Roman statute their books were to be burnt as books of magic. Cf. D. Sarefield, 'The symbolics of book burning,' in W.E. Klingshirn, L. Safran (eds), *The Early Christian Book* (Washington: Catholic University of America, 2007) 159-73.

Chapter 2
WRITING AND WRITERS
IN THE EARLY ROMAN IMPERIAL PERIOD

2.1 **Introduction**

After presenting in Ch. 1 the aim of the thesis and explaining its method of approach, as well as sketching some of the pitfalls of which such an investigation needs to be aware, my goal in the present chapter is to contextualise the analysis of data which occurs in Part B of the thesis by dealing with writing – who, how, where? – in the early Imperial period. We will first of all examine the writing styles evident in extant MSS, and then discuss the identity of those who wrote them, both professional scribes and other writers. We will also discuss their role in the copying of literary texts, before suggesting some guidelines as to how to distinguish between the hands of these two groups. Finally, we will discuss the relationship between the professionalism of the writer and the writing style of the MSS produced.[1] These issues are of central importance for our analysis of the data in Chs 4-7 and for drawing conclusions based upon it in Ch. 8.

2.2. **Writing – 'book hand' and 'documentary hand'**

This section draws on the detailed work of R. Seider, *Paläographie der griechischen Papyri* (1967-90), though my intention is to utilise his work (and that of others) to clarify the nature of the two phrases under discussion.

a. *Text description terms not precise*

In the study of Greek handwriting, texts are normally divided into two general groups – 'literary and sub-literary' texts and 'documents.' However, these terms are not exact. The 'literary and sub-literary' category can include epic texts, letters and prayers, as well as numerous other kinds. 'Documents' can include a range of items such as address labels, amulets and tax returns. Letters are sometimes classed either as literary (or sub-literary) or as documentary, apparently on the basis of their content.

[1] Parts of this chapter are adapted from my paper, 'Writing and Writers in Antiquity,' given at the *XXV Congress of Papyrology (University of Michigan, Ann Arbor, July 29 – August 4, 2007)*, revised in light of comments by participants, and with special thanks to Dr. Trevor Evans.

This fluidity in definition of the categories is seen when *PGM* is included on *TLG* and not on the *PHI* CDROM of Greek texts. Further, even in antiquity what was thought of as 'literature' changed over time: new works sometimes challenged traditional genre groups. Clearly, however useful these two categories of texts may be in general – and we will use them in this thesis – they are not precise.

b. *Definitions of writing styles somewhat circular*

It is normal to describe the handwriting style used for 'literature' as being of a different character from that employed for contemporary 'documents,' especially from the first to the fourth centuries AD, however small that difference was at times.[2] According to its editor, *P.Oxy.* 68.4669 (I/II AD?) shows a scribe 'practising on one page alternative versions of the formal round style,' for certain kinds of texts required particular kinds of handwriting.[3] A letter from Timaios (*P.Flor.* 2.259, AD 249-68) shows that there was an awareness that different scripts were (at least sometimes) appropriate for different kinds of texts, since the body of the letter is written in 'a relatively fast cursive' but a quotation from Homer in the margin is in 'well-separated, upright, and bilinear letters.'[4] Comparison may be made with an inscription from Kremna in Pisidia (mid–II AD) in which, not only is the style of script in the verse section different from that of the prose, but the verse text exhibits distinctively different letter size and interlinear spacing.[5] With respect to page layout, Johnson notes that in the Roman period it seems to have been a part of scribal training to have a standard column breadth for literary texts.[6] The writing of the *Hawara Homer*, *Codex Sinaiticus* and other early literary MSS certainly shows a care to produce a roll or codex with a 'literary appearance' in contrast to contemporary 'documents.'

[2] Turner, *GMAW*, 1 says that the difference between book hand and documentary hand only became quite distinct in IV AD, that is, towards the end of the period covered in this investigation. Cf. C.H. Roberts, *Greek Literary Hands 350 BC – AD 400* (Oxford: Clarendon, 1956) xi-xii; G. Cavallo, H. Maehler, *Greek Bookhands of the Early Byzantine Period AD 300–800* (*ICSBS* 47; London: Institute of Classical Studies, 1987) 1-2.

[3] Turner, *GMAW*, 1-4 describes the various kinds of Greek handwriting in the papyri.

[4] R. Cribiore, *Writing, Teachers, and Students in Graeco-Roman Egypt* (Atlanta: Scholars, 1996) 7. In n. 16 she demonstrates that this same awareness is exhibited in certain school exercises.

[5] G.H.R. Horsley, S. Mitchell, *The Inscriptions of Central Pisidia* (*IK* 57; Bonn: Habelt, 2000) 64-65, No. 32, pls. 32, 33. Cf. *SEG* 37 (1987) No. 1175; 42 (1992) No. 1220; C. Roueché, 'Benefactors in the late Roman period: the eastern empire,' in M. Christol, O. Masson (eds), *CongrEpigr 10 (Nîmes 1992)* (Paris, 1997) 353-68.

[6] Johnson, *Bookrolls*, 57-58.

However, 'book hand' (or, 'literary hand') is defined as the handwriting in which 'books' (or, 'literary works') were written, which is clearly rather a circular definition. In fact, some 'documents' are said to be written in 'book hand'[7] and literary works in 'documentary hand.'[8] Plainly, the definitions of 'book hand' and 'documentary hand' are circular to an extent, and Turner was right to stress that book hand was only '*normally* . . . used for the writing of books.'[9]

c. *'Book hand' and 'documentary hand'*

Although the above two points should be taken into account, it is still appropriate to ask what the character of these two broad styles of writing ('book hand' and 'documentary hand') was during the period under discussion. The difference between them is commonly understood as a 'spectrum,' but is this a reasonable description?[10] In order to answer this question, we need to review briefly the historical relationship between these two broad kinds of hands.

From the surviving evidence it appears that Greek handwriting, both for literature and documents, was originally in 'epigraphic' form, resembling the lettering on certain inscriptions. The few papyrus *documents* from IV BC, including *P.Eleph.* 1, are all said to be written in 'an epigraphic hand' or 'inscription style.'[11] The few *literary* papyri from same century, such as *P.Thessaloniki* (Dervéni fragments; commentary on an Orphic theogony), are all described as being written in 'inscription,' 'epigraphic,' or 'lapidary' style.[12] While some inscriptions are cited for comparison in

[7] Roberts, *Greek Literary Hands*, 7 refers to *P.Lond.* 2.223 (land survey, II BC; No. 7b) as having letter shapes that are quite similar to those in *P.Ryl.* 3.458 (fragment of Deuteronomy, II BC; No. 7a). Turner, *GMAW*, 115 refers to the body of *P.Oxy.* 18.2192 (Letter, II AD; No. 68) as written in book hand.

[8] Johnson, *Bookrolls*, 157 observes that *BL* Pap. 131v (Aristotle, *Constitution of Athens*; late I AD) was written by four writers, none using book hand (cf. my Pl. 1). Turner, *GMAW*, 44 describes *Musée du Louvre*, E.3320 (Alcman, *Partheneia*; I AD; No. 16) as 'cursively written.'

[9] Turner, *GMAW*, 3 [my italics]. Cf. Roberts, *Greek Literary Hands*, xi. W. Schubart, *Griechische Palaeographie* (Munich: Beck, 1925) 14 says that these two hands were used for the two kinds of texts 'in der Regel.'

[10] Haines-Eitzen, *Guardians of Letters*, 65-67 refers to two 'spectrums,' one between literary and documentary hands, and the other created by the combination of skill, expertise and level of training. Similarly, Cribiore, *Writing*, 97 refers to 'an almost infinite range of different levels' between book hands and cursive hands.

[11] The papyri are *P.Eleph.* 1 (*P.Berl.* inv. 13500; marriage contract), *P.Saqqara* inv. 1972 GP 3.c (army order), *P.Saqqara* inv. 71/2 G P 9 (No. 5676) (accounts).

[12] The papyri consist of *P.Thessaloniki*, Timotheus' *Persai* (*P.Berl.* inv. 9875) and the *Curse of Artemisia* (*P.Vindob.* G 1). E.G. Turner, 'Ptolemaic Book hands and the Lille Stesichorus,' *S&C* 4 (1980) 19-53, suggests a number of book hands from IV BC and III BC with characteristics similar to this style. Seider, *Paläographie*, vol. 3.1, 131 refers to a charred roll, found at Mangalia in Romania but

particular, it would seem that editors are using these terms as general analogies to text styles, since otherwise this would imply that there was one identifiable 'epigraphic hand.' In fact, there existed a variety of epigraphic hands in the archaic period, as Jeffrey's work shows.[13] But, if we agree to use the terms 'epigraphic' etc. as general analogies, it would appear from the scanty evidence available, some from outside Egypt, that in IV BC both documents and literature were generally produced in the style of certain inscriptions carved by stone cutters of the time.[14]

However, from III BC Greek handwriting in Egypt developed in two different directions. 'Book hand' preserved more of the bilinear 'inscription' style with separate letters and in 'strictly' or 'roughly' bilinear writing, although those terms are necessarily vague.[15] In I–IV AD book hand occurred in an informal round form,[16] as well as in formal round form,[17] where Turner used the terms 'formal' and 'informal' to refer to the degree to which a writer aimed to form letters in regularly occurring and distinctive shapes both individually and in relation to one another.[18] Some specific kinds of formal round hand are biblical majuscule[19] and Coptic uncial,[20] and there are 'formal mixed' hands[21] which contain a mixture of narrow and broad letters as well as 'a mixture of angular forms (the broad letters) and the curved ones.'[22] Mention should also be made of Schubart's 'strenge Stil,' which usually had letters with angular corners and a 'harsh' or 'severe' look.[23]

In contrast to 'book hand,' MSS written in documentary or 'cursive' hand reflected a desire to write more quickly, although here, too, there were a number of differences

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now lost, as showing 'Schönschrift in epigraphischem Stil,' according to D.M. Pippidi. J.H. Hordern, *Fragments of Timotheus of Miletus* (Oxford: OUP, 2002) 65-66 describes the papyrus scripts of the Timotheus papyrus and contemporary ones as modelled on 'contemporary epigraphic texts.'

[13] L.H. Jeffrey, *The Local Scripts of Archaic Greece* (2nd rev. ed. with supplement by A.W. Johnston; Oxford: Clarendon, 1990).

[14] Seider, *Paläographie*, vol. 3.1, 124-31 compares the 'Inschriftenstil' of the early papyri with that of the lettering on a marble stele from Samos and a marble slab from Tenos.

[15] These terms and the following ones are those used by Turner, *GMAW*, 1-4, although the term 'unilinear' in the next paragraph is my own adaptation from Seider's 'Einlinien-Urkundenschrift.'

[16] E.g. *P.Oxy.* 17.2078 (Euripides or Critias, *Pirithous*, II AD)

[17] E.g. *P.Oxy.* 17.2075 (Hesiod, *Catalogue*, III AD)

[18] Turner, *GMAW*, 20-22

[19] E.g. *P.Oxy.* 22.2334 (Aeschylus, *Sept.*, III/IV AD)

[20] *BL* Pap. 825 (receipt, AD 155) shows early characteristics of this type.

[21] E.g. *P.Oxy.* 34.2699 (Apollonios Rhodios, *Argon.* 3, III AD)

[22] Turner, *GMAW*, 22.

[23] E.g. *Codex Washingtonensis* of the Gospels (IV– early V AD)

and developments over the centuries, as well as idiosyncratic hands by individual scribes. In III BC there was a bilinear documentary style,[24] as well as a unilinear documentary style in which letters seem to depend on an ongoing writing line, usually at the upper edge of most letters.[25] There are also papyri which show a scribe writing with a mixture of both bilinear and unilinear hands.[26] A uniform 'chancery hand' gradually developed in the government offices in Alexandria.[27] The inner copy of double contracts was sometimes written in what Seider called 'Zikzakschrift,'[28] and another form of documentary hand is his 'Kettenschrift,' which resembles a chain of letters across the page.[29] Certain kinds of hands were often regarded as more appropriate for particular genres, such as for *hypomnêmata*,[30] which were normally written 'competently and quickly in neat hands that sometimes link some of the letters.'[31] Despite this, it would be difficult to prove that specific genres were written in particular styles without exception.

Thus, it is evident that from IV BC various kinds of book hands developed in Egypt, retaining a certain degree of bilinearity; but a variety of documentary hands also arose, both bilinear and unilinear, which moved further away from the original, 'inscription' styles.

d. *A 'spectrum' between 'book hand' and 'documentary hand'?*

Therefore, the question arises as to whether it is appropriate to speak of a 'spectrum' (or 'infinite range of different levels') between these two broad categories – book hand and documentary hand. The problem with this suggestion is that it implies a straight line between two extremes, along which all papyri may be placed. As we have seen, the matter is much more complex than that: there were varieties within each of these two writing styles, and the difference between the two was not always distinctly

[24] E.g. *P.Cair.Zen.* 59132 (letter, 256 BC)
[25] E.g. *P.Cair.Zen.* 59106 (letter, 257 BC). W. Clarysse, D.J. Thompson, 'Two Greek texts on skin from Hellenistic Bactria,' *ZPE* 159 (2007) 273-79, here 275-79 cite an example (No. 1) of a unilinear hand in a papyrus from Bactria.
[26] E.g. *P.Hamb.* 2.176 (letter, 241 BC)
[27] E.g. *P.Cair.Zen.* 59155 (letter, 256 BC)
[28] E.g. *P.Amh.* 42 (loan repayment, 179 BC); *P.Heid.* inv. G 442a (lease of part of a *kleros*, 159/158 BC. Cf. N. Lewis, *The Documents from the Bar Kochba Period in the Cave of Letters. Greek Papyri* (Jerusalem: Israel Exploration Society, 1989) 7-8.
[29] E.g. *P.Yale* 36 (letter, 190 BC); *P.Tebt.* 1.46 (petition, 113 BC).
[30] E.g. *P.Oxy.* 31.2535 (*hypomnêma*, late I AD).
[31] Cribiore, *Writing*, 100.

marked,[32] and fashions in handwriting changed over time. Circular definitions of writing styles, and the categories of 'literary' and 'documentary' texts themselves not being clear-cut, are also factors. Perhaps, instead of a 'spectrum' between the two, it would be better to speak of two main 'fields' (book hand and documentary hand), each with its 'sub-fields' (e.g. epic, letters, amulets), and to acknowledge that these were only ever approximate, were not mutually exclusive, and varied over time.

2.3 **Writers – professional and non-professional**

a. *Learning to write*

A number of recent studies, such as those by Cribiore, have advanced considerably our understanding of education in the Graeco-Roman world. Based on her earlier work on the school exercises surviving in the papyri, Cribiore discusses the traditional three stages of Greek education.[33] Our primary concern here is with the first stage, in which students learnt the basics of reading and writing – the alphabet, writing their own name, then syllables and copying longer texts.[34]

However, such schooling was only available to those able to pay for it, and most could not.[35] While 'literacy' is not a term with a clearly defined meaning in relation to either writing or reading, Harris's study of literacy in antiquity, supplemented by the essays in *Literacy in the Roman World*, have suggested that levels of Greek literacy in the Roman world were quite low in comparison to levels in the West in modern times.[36] Harris maintained that the 'literacy level' of the general populace in the first few centuries AD was around 10% and never rose much above 15-20%.[37] Most had not been to school and could neither read nor write,[38] and so relied on someone else to write the full text of a document for them because they themselves were completely illiterate. *P.Mich.* 10.596 (AD 372) is an example of what was a common phrase,

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[32] Cribiore, ibid., 97 writes that 'it is sometimes difficult to decide whether a hand belongs to one or the other category.'
[33] Cribiore, *Gymnastics*, 160-84. Cf. ead., *Writing*, 139-52.
[34] Ead., *Gymnastics*, 167-72.
[35] E.G. Turner, *Greek Papyri*, 82-88. Cf. E.A. Judge, S.R. Pickering, 'Papyrus Documentation of Church and Community in Egypt to the Mid-Fourth Century,' *JAC* 20 (1977) 47-71 (esp. 69-70).
[36] W.V. Harris, *Ancient Literacy* (Cambridge: Harvard University, 1989); J.H. Humphrey (ed.), *Literacy in the Roman World* (*JRASS* 3; Ann Arbor: JRA, 1991). Cf. A.K. Bowman and G. Woolf (eds), *Literacy and Power in the Ancient World* (Cambridge: CUP, 1994).
[37] Harris, *Ancient Literacy*, 13.
[38] Cf. R.S. Bagnall, *Egypt in Late Antiquity*. (Princeton: Princeton University, 1993) 241, and n. 57. The situation was presumably little different in earlier Imperial Egypt.

where Timotheos wrote for Aurelius Ptoleminos ἀγραμμάτου ὄντος ('because he is illiterate'). Those called βραδέως γράφοντες ('slow writers') could barely write their own names.[39] Others could copy texts,[40] and some might be able to compose a letter or receipt on their own.[41] There is no reason to think that this situation was different in Jewish and Christian circles.[42]

b. *'Professional scribes'*

i. Training

Therefore, in Roman Egypt professional scribes played a key role in the production of written material of all kinds, including literary texts.[43] This point is not always appreciated, but the following evidence supports it.

First, 'scribes' were artisans, members of a specialised craft group. In a study of grave inscriptions at Rome from late I BC to late I AD which contain a reference to the craft or occupation of the deceased, Joshel records the mention of the *act(u)arius, librarius (-a), librarius (-a) a manu*, as well as *a manu, amanuensis* and *notarius* – all scribal terms.[44] Further, two references in census returns, *P.Giss.* 43 (AD 119) and *BGU* 1.117 (AD 189), describe the declarant as a γραμματεύς.[45] There may have been a

[39] See Cribiore, *Writing*, 6, 19, 150-52, and esp. 116-17 for a comparison between the hands of such 'slow writers' and school hands.

[40] Bagnall, *Egypt in Late Antiquity*, 241-44 gives the evidence from the papyri, and suggests that probably more could read than write. Cf. H.C. Youtie, ''Αγράμματος: an aspect of Greek society in Egypt,' *HSPh* 75 (1971) 161-76; id., 'Βραδέως γράφων: between literacy and illiteracy,' *GRBS* 12 (1971) 239-61; id., 'ΥΠΟΓΡΑΦΕΥΣ: the social impact of illiteracy in Graeco-Roman Egypt,' *ZPE* 17 (1975) 201-21; id., 'Because they do not know letters,' *ZPE* 19 (1975) 101-108; T.J. Kraus, '"Slow Writers"— βραδέως γράφοντες: What, how much, and how did they write?' *Eranos* 97 (1999) 86-97 (repr. id, *Ad fontes*, 131-47).

[41] Cribiore, *Writing*, 3-11.

[42] C. Hezser, *Jewish Literacy in Roman Palestine* (Tübingen: Mohr Siebeck, 2001), esp. 496-504. Cf. M.S. Jaffee, *Torah in the Mouth. Writing and oral tradition in Palestinian Judaism 200 BCE – 400 CE* (Oxford: Oxford University, 2001) 15-20; H. Gamble, *Books and Readers in the Early Church. A history of Early Christian texts* (New Haven: Yale University, 1995) 6-10; id., 'Literacy, liturgy,' 29-32. On the social character of early Christian groups see E.A. Judge, *The Social Pattern of the Christian Groups in the First Century* (London: Tyndale, 1960) repr. in D.M. Scholer (ed.), *Social Distinctives of the Christians in the First Century* (Peabody: Hendrickson, 2008) 1-56; W.A. Meeks, *The First Urban Christians* (New Haven; Yale University, 1983); A.J. Malherbe, *Social Aspects of Early Christianity* (2nd ed.; Philadelphia: Fortress, 1983); G. Lüdemann, *Primitive Christianity. A survey of recent studies and some new proposals* (2002; ET: London: T. & T. Clark, 2003).

[43] Cf. N. Lewis, *Life in Egypt under Roman Rule* (Oxford: Clarendon, 1983) 82.

[44] S.R. Joshel, *Work, Identity, and Legal Status at Rome* (Norman: University of Oklahoma, 1992) 176-82.

[45] Bagnall, Frier, *Demography*, 72-73, 197 (#117-Ap-7), 269 (#187-Ar-8). In Ptolemaic and Roman Egypt the word γραμματεύς often denoted a civic official of some kind within the government administration, whose task related to writing (*LSJ*, *s.v.)*. In reality, as H.C. Youtie, 'Pétaus, fils de

greater variety of writing tasks in Rome than in the towns and villages of Egypt; but the situation in Egypt must have been similar, with scribes performing various tasks in government administration and private households, or for their own livelihood. Although scribes are not always referred to as artisans in modern studies, it seems clear that being a 'scribe' was an occupation.[46]

Second, writing depended on having the necessary implements - a reed pen (or stylus), a palette of dried ink, etc.[47] The comparative rarity of these writing implements *may* be indicated by the rarity of their mention in extant papyri;[48] but even if there was simply little need to refer to them, it must have been unusual for anyone except trained scribes and people of elite status and education to possess writing implements,[49] although perhaps more likely than someone other than a stone cutter having the tools to carve on stone (see the rare example cited below in §2.3d.i).

Third, scribes were sometimes hired to perform specified tasks, as the contracts in *P.Mich.* 11.603 (AD 134) and *P.Mich.* 11.604 (AD 223) show. Indeed, they sometimes 'went on strike,' as they did in the village of Kerkeosiris in 119/118 BC.[50]

Fourth, their wages were sometimes regulated like those of other artisans. *BL* Pap. 2110 (II AD) mentions two rates of pay for writing, and the edict of Diocletian regulating prices for goods and services (AD 301) refers to the wages of scribes.[51]

Pétaus, ou le scribe qui ne savait pas écrire,' *CE* 41 (1966) 121-43 shows, such officials could not always write. It is unlikely that these two census entries referred to the deceased as κωμογραμματεῖς.

[46] Thus, Johnson, *Bookrolls*, 160 refers to 'guild membership' as well as 'a well-established artisan craft' in the case of professional writers at Oxyrhynchus. Cf. Bagnall, *Early Christian Books*, 63. See H. Kreissig, 'Free labour in the Hellenistic Age,' in P. Garnsey (ed.), *Non-slave Labour in the Greco-Roman World* (Cambridge: Cambridge Philosophical Society, 1980) 30-33 on artisans doing work to order (cf. Sir. 38.24-34). On artisans in general see C. Mossé, *The Ancient World at Work* (Chatto & Windus, 1969) 97-111 and A. Burford, *Craftsmen in Greek and Roman Society* (London: Thames & Hudson, 1972).

[47] Turner, *GMAW*, 4-7, nn. 10, 18-20; Cribiore, *Gymnastics*, 147-59.

[48] Bagnall, *Egypt in Late Antiquity*, 44 gathers the few references in the papyri (n. 218), but notes that there might have been no need to mention such things.

[49] Cribiore, *Writing*, 152, alluding to *Pap.Ludg.Bat.* 25.15 (mid IV AD), suggests that a certain Aurelios Antonios was 'fortunate' to own a waxed tablet.

[50] A.M.F.W. Verhoogt, *Menches, Komogrammateus of Kerkeosiris* (Leiden: Brill, 1998) 149.

[51] M. Giacchero, *Edictum Diocletiani et collegarum de pretiis rerum venalium* (Genoa: Istituto di storia antica e scienze ausiliarie, 1974) 153.

Fifth, artisans trained apprentices,[52] sometimes from outside the family. *P.Oxy.* 2.275 (AD 66) and *P.Oxy.* 4.725 (AD 183) refer to the training of artisans who were not members of the family or who were slaves.[53] *P.Oxy.* 4.724 (AD 155), a two-year apprenticeship contract to a shorthand writer,[54] is evidence of this in a scribal context; and we may confidently infer the existence and availability of such apprenticeships for scribes of other kinds, given the low literacy rate and the resulting need for such skills.

Therefore, it is apparent that employment as a scribe necessitated training in a craft which was learnt over a period of years, required certain tools of the trade, and meant rates of pay which were sometimes regulated like other occupations. So, as with other trades, it would be reasonable to assume that the majority of work involved, in this case the craft of writing, was done by trained scribes, 'artisans' possessing various levels of expertise, whose occupation was to write day-by-day in a variety of settings such as government administration, private households,[55] on behalf of family and friends, or in their 'shop.'[56] Thus, in this thesis we will use the word 'scribe' to refer to those whose regular task was to write (often *for others*), and who, to varying degrees, had received training.

Such training included mastering a bilinear writing and a cursive hand for speed.[57] It must also have involved learning appropriate formulae to use for particular genres, layout on the page, etc.[58] The occurrence of set wording on Greek funerary epigrams in diverse locations is a suggestive parallel to the similarities evident in documentary texts, since the former imply the existence of fixed forms of words which were widely

[52] For registrations of apprentices see, e.g., *SB* 24.16186 = *P.Oslo* inv. 1470, AD 70; *P.Mich.* 3.170, AD 49; *P.Mich.* 3.171, AD 58; *P.Mich.* 3.172, AD 62; Parsons, *City*, 115 (two such contracts from Oxyrhynchus). Cf. Horsley, *NewDocs* 3.165, note (k); 4.140, note (a).
[53] Cf. A. Burford-Cooper, 'Handwerk, V. Klassische Antike,' *NP* 5 (1998) 138-47, *BNP* 3 (2003) 899-907. S.P. Vleeming, 'Some notes on Demotic scribal training in the Ptolemaic period,' in *PapCongr.* XX (1994) 185-87 plausibly suggests that such scribal training in Demotic was mostly done by fathers for their sons, which provides a parallel.
[54] For the extended time taken to learn to write well, cf. Plato, *Laws* 810b and D.H., *Comp.* 25.
[55] Lewis, *Life in Egypt*, 135 alludes to a rich Roman family residing in Alexandria, which included amongst the slaves 'six trained as stenographers, two copyists or secretaries, a scribe.'
[56] Johnson, *Bookrolls*, 159 suggests that a scribe need only be a person 'on a public corner with his chest (*scrinium*, Catullus 14).'
[57] Cribiore, *Writing*, 98-99, 113. Cf. Haines-Eitzen, *Guardians*, 55-64.
[58] S. Bucking, 'On the training of documentary scribes in Roman, Byzantine, and early Islamic Egypt,' *ZPE* 159 (2007) 229-47. Cribiore, *Gymnastics*, 182-83 refers to *MPER* NS 15 for 'many exercises of apprentice scribes that presuppose specific notarial training.'

known and used.[59] *CPR* 5.2 (AD 134-36) seems to be a writing exercise by a student professional scribe.[60] According to Cribiore, *P.Ryl.* 1.59 and *P.Hawara* 24 are 'proficient scribal exercises in book hand or in chancery style.'[61] Appenticeship was one means of learning shorthand, as the apprenticeship contract referred to above (*P.Oxy.* 4.724) shows. Martial mentions a *notarius velox* and his students (10.62.1-5). Nepos refers to the training of slaves as scribes in household settings (*Att.* 13.3-4); no doubt this occurred in order to improve various aspects of their writing abilities, although such households were probably mostly elite. It seems likely then, despite the paucity of evidence, that professional scribes were trained in a variety of settings so that they would be able to compose and copy a range of different kinds of texts.[62]

ii. Varieties of work

Various people assisted those who could not write at all, or barely so. Teachers sometimes wrote for others, as the work of Αὐρ(ήλιος) Πλουτίων διδάσκαλος shows (*P.Sakaon* 3, AD 300). Philocalus, a primary teacher in Capua in the first century AD, added to his income by copying wills (*CIL* X, 3969). However, when any degree of professionalism was required, particularly when a person had to relate to the government administration in some way, it was usual to call upon scribes for assistance in writing.[63] Therefore, it was not just in late antique Egypt that towns had 'ubiquitous public scribes,'[64] to whom the rest of the population resorted when they needed writing done.[65] Local scribes were often available,[66] and could be employed to perform tasks such as taking shorthand,[67] drafting new texts of many different kinds, or copying books.[68] In some wealthier households, professional scribes were

[59] T. Drew-Bear, 'A metrical epitaph from Phrygia,' in G.W. Bowerstock, W. Burkert, M.C.J. Putman (eds), *ARKTOUROS. Hellenic studies presented to Bernard M.W. Knox on the occasion of his 65th birthday* (Berlin: de Gruyter, 1979) 308-16.
[60] A. Maravela-Solbakk, 'Reading the handwriting: the letter of an apprentice scribe?' *ZPE* 149 (2004) 186-88.
[61] Cribiore, *Writing*, 28-29.
[62] Cf. S.P. Vleeming, 'The village scribes of Pathyris,' *PapCongr.* XVII (1984) vol. 3, 1053-56; E.G. Turner, 'Scribes and scholars of Oxyrhynchus,' in *PapCongr.* VIII (1956) 141-46; W.J. Tait, 'Some notes on Demotic scribal training in the Roman period,' *PapCongr.* VIII (1956) 188-92.
[63] Bagnall, *Egypt in Late Antiquity*, 91 refers to the fact that (occasionally) school teachers, scribes in government offices and banks, and even lawyers, wrote on behalf of other people, but notes that most people depended for their written needs on 'a relatively small group of professional writers,' and this included professional contract writers.
[64] Bagnall, ibid., 247.
[65] Cf. Cribiore, *Gymnastics*, 163-64.
[66] Cf. Cribiore, *Writing*, 164-66; Haines-Eitzen, *Guardians*, 22-29.
[67] Cf. E.R. Richards, *The Secretary in the Letters of Paul* (*WUNT* 2/42; Tübingen: Mohr, 1991) 24-43.
[68] Cribiore, *Writing*, 3-11, esp. 10-11.

employed as secretaries to perform a wide range of writing tasks, including the copying of literary texts.[69] A literary papyrus, *P.Lond.* 2.256 (I AD), being part of a documentary archive, is one example of the latter.[70] Even those employed in the Roman administration, or who produced private and administrative documents for payment, copied literary texts from time to time. Thus, in Roman Egypt a professional scribe was required to produce writing to a particular standard and in a certain form in a wide range of contexts.

iii. Payment

A number of papyri provide evidence of scribes being paid for their work. *P.Mich.* 11.603 (AD 133/4) is a contract for nine scribes to prepare copies of documents; and *P.Mich.* 11.604 (AD 223) records the hiring of a secretary to perform a number of duties including writing receipts and reports. In *BL* Pap. 2110 (*SB* 20.14599; 1st half III AD) there is a reference to a copyist being paid 12 drachmas to copy out 4000 lines of verse comprising Aristophanes' *Plutus*, an unknown work, and Sophocles' *Third Thyestes*; different rates are also mentioned.[71] Thus, there were various rates of pay for such scribes, depending on the amount of text copied and the quality of writing. The mention of the number of στίχοι in the papyri is probably an indication of the amount of text copied for the purposes of calculating the amount owed to the scribe for copying it.[72] Clear examples of recording the number of στίχοι occur at the end of each letter in **497** (𝔓[46]). We may be sure that, aside from different styles of writing for literary works as against documents, etc., striving to be paid at the higher rates would be a factor to be negotiated in the reproduction of a MS. The presence of stichometric counts in the MSS in my database will be examined in Ch. 7 (§7.5).

c. *'Non-professional writers'*

In contrast to professional scribes, the writing of quite unpractised writers can be seen in their 'personal hand.' Yet a 'personal hand' may simply indicate someone's own

[69] Cf. Cribiore, *Gymnastics*, 182-83; Haines-Eitzen, *Guardians*, 29-32.
[70] W. Clarysse, 'Literary papyri in documentary "archives",' in E. van 't Dack, P. van Dessel, W. van Gucht (eds), *Egypt and the Hellenistic World (SH* 27; Leuven: Peeters, 1983) 43-61, here 46.
[71] H.I. Bell, 'The "*Thyestes*" of Sophocles and an Egyptian scriptorium,' *Aeg* 2 (1921) 283-85; K. Ohly, *Stichometrische Untersuchungen* (Leipzig: Harrassowitz 1928) 88-89, 127-28; Parsons, *City*, 156-57.
[72] Turner, *Greek Papyri*, 95. Some understand this as a way of ensuring accuracy in reproducing a known number of στίχοι in a given work; see B.M. Metzger, *MSS of the Greek Bible* (Oxford: OUP, 1981) 38-39 for a discussion of this. On the subject of stichometry see F.G. Lang, 'Schreiben nach Mass. Zur Stichometrie in der antiken Literatur,' *NT* 41 (1999) 40-57.

writing in contrast, for example, to the hand of the scribe who wrote the bulk of a document. There are numerous examples of a very irregular 'personal hand' in the signatures or a few lines of subscription at the end of documents such as *P.Rein.* 18 (108 BC) and *P.Heid.* inv. G 3 (103 BC). In these latter cases, where the writer could only barely write, it would have been highly unlikely that such βραδέως γράφοντες copied out works of literature. They were unable to perform such a task, and had no reason to do so. Therefore, the term 'personal hand' will be used in this thesis to describe the hand of those who could indeed write, but not with the same proficiency as a scribe[73] – although there were degrees of skill and consistency even amongst scribes (see §2.3e below).

However, Greek archives in Egypt (and some elsewhere) include a significant number of MSS written by their composers.[74] For example, according to Seider, a letter of Zenon (*P.Cair.Zen.* 59129, 256BC) is written in his own hand.[75] Some of the correspondence of Aurelia Charite (IV AD) is in her own hand, although scribes wrote most of her documents.[76] But in *P.Oxy.* 42.3067 (III AD) Achillion dictated his letter to a secretary, who wrote it out in 'a handsome chancery script,' and then Achillion signed it 'in a much less elegant fist.'[77] Clearly, there were people who were able to write and did so,[78] but even for everyday documents they often used the services of scribes instead of writing in their own hand.[79] But did these people who could write moderately well write or copy literary texts?

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[73] Schubart, *Griechische Palaeographie*, 20 draws attention to the apostle Paul's reference to his own writing in Gal 6.11 as probably indicating such a 'persönliche Hand,' presumably meaning 'amateur.'

[74] The *Leuven Homepage of Papyrus Archives* (available: http://www.trismegistos.org/arch/index.php) [accessed 21.08.2007] lists 322 archives in Greek. Cf. A. Jördens, 'Papyri und private Archive. Ein Diskussionsbeitrag zur papyrologischen Terminologie,' in E. Cantarella, G. Thür (eds), *Symposion 1997. Vorträge zur griechischen und hellenistischen Rechtsgeschichte (Altafiumara, 8.-14. September 1997; = Akten der Gesellschaft für griechische und hellenistische Rechtsgeschichte* 13) (Cologne: Böhlau, 2001) 253-268.

[75] Seider, *Griechische Paläographie*, vol. 3.1, 193-95 (incl. II Abb. 31).

[76] Bagnall, *Egypt in Late Antiquity*, 247. Cribiore, *Writing*, 156 describes Aurelia's hand as 'not very experienced, showing 'the lack of fluency and unevenness of people for whom writing was not a frequent occupation.' Ead., *Gymnastics*, 41-42 refers to a letter of AD 98-117 (*SB* 3.7268) in which the sender, Sarapion, adds his final greetings in a hand showing 'considerable familiarity with the pen;' but she notes that the rest of the letter was penned by a professional scribe.

[77] Parsons, *City*, 123.

[78] In *P.Oxy*. 12.1467 (AD 263) Aurelia Thaisous shows that she could write and read with ease.

[79] M. McDonnell, 'Writing, copying, and the autograph MSS in ancient Rome,' *CQ* 46 (1996) 496-91 examines what writing was done by elite (and educated) writers in Rome, and concludes they did write and correct some original documents, but not many. Bagnall, Cribiore, *Women's Letters*, 42 observe that about two-thirds of the women's letters in Greek were 'written by someone other than the named author,' including (p. 44) one-third in a secretarial hand.

d. *Copying literary texts*

i. Range of copyists

While certain upper-class people did write on occasion, it appears that they did not often copy out works of literature.[80] This task was mostly delegated to scribes, whether household slaves or individuals hired for the task, if an elite individual wanted that done (cf. Cicero, *Att.* 12.14, 12.40, 12.44).[81] Of course, those with fewer resources had to do their own copying,[82] and some others from sub-elites might do so.[83] But most educated people who *could* write did not often (if at all) copy out works of literature.

In his study of literary rolls from Oxyrhynchus (I BC – III AD), with a control group of texts from III BC to III AD, Johnson assigned numbers from 1 to 3 to the hands that copied them, from a greater to a lesser degree of professionalism.[84] In his list of all such Greek rolls from Oxyrhynchus the number of hands assigned by him to the three categories is as follows (Fig. 2.1):[85]

Figure 2.1 **Numbers of literary MSS by quality of hand (as given in Johnson, *Bookrolls*, 162-230)**

Quality	*3*	*2*	*1*
Prose texts: certain	12	95	45
Prose texts: uncertain	11	32	16
Prose texts: total	23	127	61
Verse texts: certain	28	44	47
Verse texts: uncertain	4	14	7
Verse texts: total	32	58	54
Total	55	185	115

This shows that it was far more common (6:1 ratio) for literary works to be copied by professional scribes (Categories 1 and 2) than by non-professional writers (Category 3).[86] Therefore, for any group of MSS containing literary texts we would expect to find only a small proportion of highly 'professional' (or 'calligraphic')

[80] McDonnell, 'Writing,' 469-91.
[81] McDonnell, ibid., 477.
[82] The private circles in which books could be copied (although even here scribes might be used) are again evident in *P.Oxy.* 18.2192 (late II AD).
[83] D.J. Thompson, 'Ptolemaios and the "Lighthouse." Greek culture in the Memphite Serapeum,' *PCPhS* n.s. 33 (1987) 105-21 refers to Apollonios and his brother Ptolemaios (mid II BC), who copied Greek literature with varying degrees of aesthetic ability and accuracy.
[84] Johnson, *Bookrolls*, 162-230. He notes (p. 161) that in his Tables '1' designates 'formal, semi-formal, or pretentious hands,' '2' is for 'informal and unexceptional (but for the most part probably professional),' and '3' is for 'substandard or cursive' hands.
[85] Where Johnson recorded two possibilities for a MS, e.g. '2? (or 3?),' I have included both, but as 'uncertain.' This results in a certain amount of duplication, but does not affect the overall picture.
[86] It was apparently more common for verse texts to be copied by non-professional writers than prose texts, especially if we take the certain category (28:12).

copies, a large proportion professionally produced (but not 'calligraphic'), and a much smaller proportion of texts copied by non-professional writers (presumably, those who could simply write tolerably). Thus, Johnson writes of the 'dominance, indeed, near uniformity, of professionalism' in the production of literary rolls,[87] although no doubt there were levels of training and competence even among such 'professionals.' Therefore, a papyrus of a literary text should be assumed to have been written by a professional 'scribe,' unless there is evidence to the contrary.

By way of comparison, we note here the rare instance of a person who was not a stone mason having carved an inscription. An elderly horse veterinarian from Cilicia says that he composed and inscribed his own funerary epigram. While the carving is reasonably well achieved, it is clearly a non-professional product since the versification is not perfect, nor is some syllable division at line-end correct.[88] For epigraphic texts, too, non-professional production was the exception.

ii. Professional scribes as copyists

If Johnson's judgements on the quality of handwriting are to be accepted, his study (see Fig. 2.1 above) also shows that the hands assigned to Category 2 are much more numerous than those in Category 1 (especially in prose texts). Therefore, it follows that the scribes who copied literary texts were not highly professional scribes (or did not use highly calligraphic hands) in most instances. Literary papyri from the middle group of scribes (or hands) are much more common.

e. *Levels of professionalism in 'hands'*

At this point it is appropriate to review the different levels of professionalism in papyri and to attempt to categorise the kinds of 'hands' evident among the writers in Roman Egypt. The complicating factor is that certain genres, such as literary texts or letters, seem to have had different requirements, as shown by the different script for a Homeric text in a margin of a document referred to above (*P.Flor.* 2.259; see §2.2b)

[87] Johnson, *Bookrolls*, 160 observes that the Aristotle *Constitution of Athens* papyrus (*BL* Pap. 131v, I AD) is a rare exception. He rightly contrasts commentaries or other 'sub-literary' texts, which show different features, and documents (and various sub-fields of these) or magical texts even more so – different layout, different handwriting, etc.

[88] See M.H. Sayer, 'Der Pferdearzt Memmius Hippokrates,' *EA* 29 (1997) 107-09. Cf. G.H.R. Horsley, *The Greek and Latin Inscriptions in the Burdur Archaeological Museum* (*BIAA Monograph* 34; London: BIAA, 2007) 267, and one further example in his n. 16.

as well as the different script of many 'literary' papyri in comparison to a majority of 'documentary' papyri. With this limitation in mind, can we formulate some categories of professionalism evident in the papyri?

For women's letters Bagnall and Cribiore distinguish three different categories of writing: (1) 'Professional Hands: Epistolary, Documentary and Literary;' (2) 'Secretarial Hands;' and (3) 'Personal Hands.'[89] For literary rolls we have noted Johnson's three categories of hands above. In literary papyri containing marginal annotations McNamee offers the two extremes of 'distinctive hands' as 'fine' and 'personal,' with the vast majority in between.[90] If we exclude the hands of those who could only just add a subscription to a document, and confine ourselves to literary papyri, it would seem reasonable to distinguish between three categories of handwriting:

1. Professional and calligraphic hands of scribes for copies of literary works.[91]
2. Professional but less formal hands – a difference in quality.[92] The majority of extant literary papyri are written in these kinds of hands, as are letters, documents and the like.
3. Non-scribal (non-professional) hands, written by those who were not scribes by profession but who had some education and could write tolerably well.[93] A number of McNamee's 'personal' group (e.g. *PSI* 1.110; Sallust, IV AD)[94] would be at the lower end of skill in this group. In this classification, 'personal' hands do not refer to those only just able to sign a document, but to people who were able to write, but without the skill of a trained scribe.

[89] Bagnall, Cribiore, *Women's Letters*, 42-45.
[90] K. McNamee, *Annotations in Greek and Latin Texts from Egypt* (*ASP* 45; American Society of Papyrologists: 2007) 514-29 records the 'distinctive script' for MSS out of the total of 293. Only 15 are called 'fine' and 18 (+ 1 uncertain) 'personal.' The remaining 259 (260) are presumably somewhere between these two extremes. She refers (pp. 21-22) to these two extremes as 'extremely elegant and professional' hands (such as in the Hawara Homer) or 'very informal, personal copies.'
[91] This would comprise Bagnall and Cribiore's first group, Johnson's first group, and McNamee's 'fine' group.
[92] This group would then consist of Bagnall and Cribiore's second (secretarial) group, Johnson's second group, and McNamee's middle group (although she suggests that these were not necessarily professional).
[93] On the general issue of distinguishing a scribe's hand from that of an elite or sub-elite writer such as a business person, especially in relation to the Zenon archive, see T.V. Evans, 'Orality, Greek Literacy, and early Ptolemaic Papyri,' in C.J. Mackie (ed.), *Oral Performance and its Context* (Leiden: Brill, 2004) 195-208.
[94] McNamee, *Annotations*, pl. 22.

The different terminology used by Johnson, Bagnall and Cribiore, and McNamee is set out in Fig. 2.2 to show how these approximately equate.

Figure 2.2 **Categories of 'hands' (given by recent writers)**

Thesis	*Johnson*	*Bagnall & Cribiore*	*McNamee*
1	1	Professional	Fine
2	2	Secretarial	(Middle group)
3	3	Personal	Personal

Although the above three categories are neither precise nor clearly distinguishable at the boundaries, they at least provide some categories to work with.[95] In this thesis, I use Johnson's handwriting Categories 1–3, as noted here, with some further differentiation in each Category on the basis of the writer's skill. See esp. Ch. 4 (§4.4) below.

f. *Signs of a non-professional writer*

How then can we differentiate the hand of a non-professional writer in Category 3 (Fig. 2.2, above) from the others? In his discussion of a private letter (*P.Oxy.* 18.2192, II AD) Turner describes the main part as written in 'a competent professional hand,' with 'regular though informal' letters in contrast to the first postscript as 'hastily penned' in documentary cursive.[96] In *P.Oxy.* 31.2586 (II AD) a master weaver, Aurelios Dioskoros, added two lines of his own to a contract 'in his own spindly capitals,' which were 'drawn rather than written.'[97] These comments imply that the work of a non-professional scribe shows a degree of 'irregularity' (or unevenness);[98] and it is this irregularity that will form the heart of our criteria to distinguish non-professional hands from professional ones.[99] The non-professional hand has to labour at producing the desired lettering, something different from the careless hand of a professional writing rapidly.

[95] Turner, *Greek Papyri*, 94, leaving aside school hands and scholars' hands, suggests three classes of texts: (1) 'Beautiful calligraphic texts' without signs of being scholars' texts; (2) 'Professionally written literary texts on versos;' (3) Literary texts in nondescript hands.
[96] Turner, *GMAW*, 3-4.
[97] Parsons, *City*, 153-54.
[98] 'Non-professional' writers did not possess the easy regularity of a practised scribe which partly came from writing as a daily occupation. Thus, Youtie, 'Βραδέως γράφων,' 240 describes the hand of Petaus as 'stiff, awkward, uneven, kept on the line with obvious effort.'
[99] By way of comparison Cribiore, *Writing*, 102-11 describes 'school hands' as often 'ungainly,' 'rough,' 'rude,' clumsy,' 'unformed,' etc., lacking 'uniformity' or 'writing continuity.'

Can we be more specific about what kinds of irregularity (or other associated features) show the hand of a non-professional writer's work, especially in literary texts? In his study of literary rolls at Oxyrhynchus Johnson lists a number of aspects of MSS which indicate the hand of a non-professional writer, taking the copy of Aristotle's *Constitution of Athens* (*BL* Pap. 131v) as a prime example, since it exhibits a high degree of irregularity.[100] See Johnson's pl. 14 for the Aristotle papyrus which exhibits some of the following features (cf. my Pl. 1, in Vol. 2, App. 2).[101] If we combine the features which he mentions with a small number of others, these may be taken as evidence that a non-professional writer has copied a literary papyrus. A list of these features follow, with examples of each. For the moment I leave aside two matters, the style of handwriting (see Ch. 4, §4.4) and the use of abbreviations (see Ch. 7, §7.8).

i. Uneven letter size, shape and spacing

The NT MS *P.Bodm.* VII ($\mathfrak{P}^{72}$) and other sections of the *Bodmer Miscellaneous Codex* have very irregular lettering,[102] this being due to tiredness and resulting in deteriorating consistency.[103] In Ch. 4 (§4.4) this will form a part of our examination of the handwriting quality of the MSS on my database in order to locate those MSS written by non-professional writers. See also Ch. 6 (§§6.9, 6.10).

ii. Uneven line of writing

An uneven 'horizontal line of writing' can be seen in several sections of the Aristotle, *Constitution of Athens* papyrus (see Pl. 1, Col. 13).[104] This matter will also form a part of our discussion of the handwriting quality of the MSS in Ch. 4 (§4.4).

iii. Irregular column and column-to-column breadths

Johnson observes that Column 11 of the Aristotle papyrus is three times as wide as Column 13, and Column 12 is twice as wide as Column 13 (see my Pl. 1). The inter-

[100] Johnson, *Bookrolls*, 157-58. The following catalogue of features uses his list of characteristics and examples, and some of his terminology.
[101] Plates in App. 2, Vol. 2 of this thesis will now be indicated by Plate number (Pl. X) only.
[102] This stands in contrast, for example, to *P.Mich.* inv. 3755 (Isocrates, *Paneg.*; III AD), in which, as the editor says, 'the line height (0.2 cm), the interlinear space (0.3 cm), and the sloping stance of the letters are quite consistently maintained.' See my Pl. 14.
[103] Cribiore, *Writing*, 103 refers to these factors in relation to school hands, and notes that 'an inexperienced writer betrays a variable writing movement in the irregularity of alignment and margins and in letter spacing, inclination and form.'
[104] This stands in contrast to the straight lines of *P.Mich.* 18.760 (geographical MS; I/II AD), which are clear indicators of a professional production.

columnar breadths are also irregular. This criterion would not apply to most codices, since only a small number are written with more than one column per page. In Ch. 5 (§§5.2, 5.3) the horizontal aspects of columns in the MSS will be examined.

iv. Very wide columns

Column 11 of the Aristotle papyrus is very wide – more than 15cm (cf. Pl. 1, Col. 12). Again, since column breadth in a codex is limited by the size of the page, this feature is less applicable to codices. This aspect of the MSS will be analysed in Ch. 5 (§§5.2, 5.3).

v. Uneven left margin

The left writing edge of Column 14 of the *Constitution of Athens* bulges out in the middle (see Pl. 1).[105] The MSS will be studied from this point of view also in Ch. 5 (§§5.2, 5.3).

vi. Quite uneven right margin

When there is an obvious attempt to keep the right margin straight, either with the use of line-fillers such as the *diplê* (>) or letters extended to the right, it seems that a professional scribe has been at work.[106] When the right margin is very uneven, such as in *P.Bodm.* VII, a non-professional writer has probably been at work (cf. Pl. 1, Col. 13),[107] unless it is a verse text laid out with indentation. Ch. 5 (§§5.2, 5.3) will also contain a discussion of this feature in the MSS.

vii. Slant of right margin of a column does not match slant of left margin

When the slant of the right margin is not parallel to the slant of the left margin, the column becomes more a trapezoid than a rectangle, such as in columns 2, 6 and 7 of the Aristotle papyrus. While this is not as easily applicable to codices, it may still be used as a criterion at times.

[105] I observe in passing that *P.Col.* 8.202 (Euripides, *Orestes*; II/I BC) has lines in one column almost touching the left writing edge of the column on the right. In contrast, *P.Beatty* VII, Pap. 9/10 (Ezekiel, Daniel, Esther; II/III AD) (**293**) shows a left margin that is vertical and straight.
[106] *P.Bodm.* V (*Prot. Jas*, III AD) (**599**) has a very regular right margin. In *P.Mich.* inv. 3 (Dioscorides, *Mat. Med.*; late II AD) a *makron* (—) is used as a line-filler, probably to justify the right margin.
[107] Cribiore, *Writing*, 103 notes that school hands often show 'irregular and wavering' side margins.

viii. Quite narrow upper and lower margins

P.Beatty XIII (IV AD) (**170-1**) seems to have had almost no side margins (at present c. 2mm) or upper margin (c. 2mm), and gives other indications of being a non-professional production. In *P.Bodm.* VII (III–IV AD) (**557**), the upper and lower margin heights are quite narrow, although it is possible that they may simply be worn.[108] Upper and lower margins that are not formed straight across the papyrus may also be taken as a sign of inexperience.[109] This feature of the MSS in the database will be studied in Ch. 5 (§5.1).

ix. Writing on the reverse of a used writing surface

The Aristotle papyrus is inscribed on the back of four previously-used papyrus rolls that are joined to form one roll,[110] unlike most literary papyri which were written on the recto of unused papyrus. This matter will be studied in the MSS on my database in Ch. 4 (§4.8).

Since the Aristotle papyrus may not have been entirely typical, and since it was a roll unlike most of the papyri in the present study, we should treat the list above as a group of irregularities of which only some may occur in a given MS, or which might be present to varying degrees. With these provisos in mind, we may trace the hand of a non-professional writer when at least some of these features are present, even though we may not be able to specify a minimum number of features or a minimum degree to which they should be present.[111] On the other hand, scribes were trained to avoid such irregularities and other associated features, and to write with more regularity, because they were required to produce MSS to a certain qualitative standard. This was only possible because of training and ongoing practice. These features of the MSS on my database, along with some others, will be examined in Chs 4-7, in order to see if a lack of professionalism can be discerned in their manufacture.

[108] This stands in stark contrast to the upper and lower margin heights (3.2 cm) in *P.Mich.* inv. 920/921 (Homer hypothesis; II–III AD), or the upper margin height (3.8 cm) and lower margin height (3.1 cm) in *P.Mich.* inv. 3 (Dioscorides, *Mat. Med.*; late II AD).
[109] Cribiore, *Writing*, 103 traces this to irregularity of alignment.
[110] Johnson, *Bookrolls*, 157.
[111] A similar list of characteristics is given in Bagnall, Cribiore, *Women's Letters*, 145. They refer to the 'unattractiveness' of less practised hands as deriving from 'particularly unruly right margins, wildly varying line spaces, wavering lines of writing, clumsy corrections, and retracing of letters.'

g. *A 'spectrum' between professional 'scribe' and non-professional 'writer'?*

Therefore, it *is* appropriate to speak of a qualitative spectrum between the hand of a professional scribe and that of a non-professional writer. A 'scribe' *might not* do his best work for a number of reasons, and a (non-professional) 'writer' *might* do his best. Yet, in general, since the differences between the work of trained 'scribes' and unskilled 'writers' mostly lie in the regularity with which a number of features of writing were executed, we may reasonably refer to the 'spectrum' between the work of a 'professional scribe' and the effort of an 'unskilled writer' – one produced with a high degree of regularity, the other containing a number of irregular features. This is a complex matter since there are various aspects of a MS which play a part in its presentation. But in this case, the word 'spectrum' *does* seem to be an appropriate one to use for the difference between the two extremes of regularity in written products; and this can be expected to reflect, at least to some degree, the training and/or capability of the writer responsible for their production. The plates in Vol. 2, App. 2 illustrate this spectrum, including a selection of MSS in my database for comparison.

2.4 **Relationship between writer and writing**

Was there any relationship between the professionalism of the writer and the writing style employed ('book hand' or 'documentary hand')? One point of contact between the two is the observation that only scribes used book hand.[112] Evidence from the *APIS* database tends to support this view, although there may be rare exceptions. Although editors' descriptions vary, in a check of the Greek papyri from II–IV AD on the *APIS* database (10th July 2009), of 40 specifically noted as being written in 'literary hand,' the hands of 15 are said to be in a literary style and only 3 are possibly written by a non-professional writer. The latter are: *P.Mich.* 3.144 (fragment of algebraic problems; II AD) in a 'very irregular' hand; *P.Col.* inv. 203c (recto) (literary text?; II/III AD) in an 'informal' literary hand; *P.Corn.* inv. II 38 (*SB* 8.9907) written in a 'coarse' hand with an affinity to a semi-literary style.

As for the 32 papyri from the same period stated as being in 'book hand,' only 7 may show signs of non-professional production.[113] *P.Mich.* inv. 1318 (Homeric papyrus;

[112] See, for example, Johnson, *Bookrolls*, 157.

[113] W. Clarysse, 'Egyptian Scribes Writing Greek,' *CE* 68 (1993) 200 suggests that a number of early MSS whose handwriting is 'rough' may well have been drafts written by professional scribes.

III AD) is written in 'large, slightly irregular and somewhat crowded uncials.' *P.Mich.* inv. 3378 ('short story?'; 2nd half II AD) is written in a 'not very regular' book hand; *P.Mich.* inv. 3402 (Romance?; III AD) and *P.Col.* 8.205 (Argonautica; III AD) exhibit an informal book hand; *P.Mich.* inv. 4925 (recto) (New Comedy; III AD) is in 'a semi-cursive book hand;' *P.Mich.* inv. 4925 (verso) (Jannes and Jambres; IV AD; my **584-1**) is in an 'irregular book hand' (see my Pl. 31); *P.Mich.* 3.135 (Ecclesiastes; III AD; my **265**) is described as being in a 'heavier and less elegant' hand than *P.Mich.* 3.133 (Psa 8-9; III AD; my **101**).

As an example of the trend observed above, *P.Oxy.* 31.2604 (III AD) shows a scribe practising various types of script: chancery script (1st line), a similar style but of larger size (2nd line), and large round uncials of more archaic type (3rd line).[114] Therefore, I conclude that Johnson is right to suggest that all writers (including those who could barely write) could use some form of documentary hand, but that MSS written in book hand – bearing in mind the inexactness of that term (see §2.2b above) – were almost all written by trained scribes.[115] Here, then, is one further criterion – apart from those mentioned in §2.3f above – by which the hand of a non-professional writer may be discerned in contrast to that of a professional scribe. In general, only professional scribes wrote bookhand. This matter will constitute part of our study of the handwriting quality of the MSS in Ch. 4 (§4.4).

2.5 **Conclusion**

Thus, while ***it is not appropriate to speak of a 'spectrum' of writing styles between 'book hand' and 'documentary hand'*** (§2.2), ***there was a spectrum between the hand of the most skilled and committed professional scribe and that of untrained writers***. Further, trained scribes did most of the writing in Hellenistic and Roman Egypt, although those who had been educated in some fashion could write tolerably well and did write documents at times (§2.3a-c). However, such 'writers' probably did not often engage in copying out literary texts, which were almost entirely the task of trained scribes – slaves in the household, scribes in government administration,

[114] Parsons, *Oxyrhynchus – a city and its texts. Virtual exhibition: scribes and scholars. 'Scribes practising various styles: Late second or third century AD'* [accessed 5.1.2008].

[115] Cribiore, *Writing*, 153 writes of the 'foundation or basic script that appears in the writing samples of students, semi-literates, and individuals who occasionally used writing.' She goes on to say, that 'Some of the school exercises display the process by which students, departing from a basic script that was in the background, learned to imitate more formal "book hands".'

scribes who worked for themselves, or (somewhat less regularly) teachers and others earning extra income (§2.3d).

It follows that we ought to assume that a literary text has been copied by a scribe unless there is evidence to the contrary. Such evidence would comprise a range of irregularities (§§2.3f-g) and the style of the hand (§2.4), bearing in mind the difference between inexperience (the apprentice scribe) and carelessness (the tired or uncommitted scribe) on the one hand, and incompetence (the non-professional writer) on the other. In this case, the 'spectrum' – although perhaps not a hard-and-fast division – between the work of a professional scribe and that of a non-professional writer may be described in terms of the handwriting Categories 1–3 (§2.3e), which will form the basis of comparison of MSS in Ch. 4 (§4.4).

The next chapter, Ch. 3, concludes the task of laying the groundwork for the detailed analysis in Chs 4-7, by examining not the writers or the writing style they used, but the context in which they lived and worked as they copied MSS in early Roman Imperial Egypt.

Chapter 3
COPYING MANUSCRIPTS
IN THE EARLY ROMAN IMPERIAL PERIOD

3.1 **Introduction**

In this last of the preliminary chapters before we analyse the data of the MSS, we will discuss more specifically a number of elements in the process of copying Greek MSS which may have had an effect on the copies produced.[1] We will review ways in which writers copied and corrected MSS, and then consider a range of factors relevant to the whole process, including the writing surface, book form, the exemplar and the physical, social and religious context in which the copyist was working. Lastly, we will consider briefly the role of the individual copyist, as well as the commissioner when there was one. It is essential to examine these matters, just as it was to raise the issues and clarify important terms in Ch. 2, since the analysis of the data in Chs 4-7 and the conclusions drawn in Ch. 8 depend on a clear understanding of the realities of MS reproduction in the early Roman Imperial period.

3.2 **The process of copying**

At the outset two matters should be addressed concerning the processes by which MSS were copied during this period, before we can undertake a more detailed study of a number of factors bearing on the reproduction of MSS.

a. *Dictation and visual copying*

The first issue is whether MSS were ever (or, commonly) copied by dictation. In particular, were copies of a MS produced by means of a reader dictating to a number of scribes who wrote copies simultaneously, in order to increase the rate at which multiple copies might be reproduced?[2] The suggestion that MSS were produced in such a way is based on at least two kinds of evidence.

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[1] Cf. K. Junack, 'Abschreibpraktiken und Schreibergewohnheiten in ihrer Auswirkung auf die Textüberlieferung,' in E.J. Epp, G.D. Fee (eds), *NT Textual Criticism: its significance for exegesis. Essays in honor of Bruce M. Metzger* (Oxford: Clarendon, 1981) 277-95; M. Beit-Arié, 'Transmission of texts by scribes and copyists: unconscious and critical interferences,' *BJRL* 75 (1993) 33-51.

[2] Cf. T.C. Skeat, 'The use of dictation in ancient book-production,' *PBA* 42 (1956) 179-208; P. Petigmengin, B. Flusin, 'Le livre antique et la dictée. Nouvelles recherches,' in E. Lucchesi,

First, Atticus had a staff of copyists, who performed various tasks, including taking down letters by dictation (Cicero, *ad Att.* 4.16, 6.6, 8.13, 13.25); but there is no evidence here for MSS being *copied* by dictation, let alone multiple scribes doing so. In the context of early Christianity the suggestion is sometimes made that copies were multiplied by means of dictation on the basis of the report that Origen was supplied with at least seven shorthand-writers, and as many copyists, as well as girls trained in calligraphy (Eusebius, *H.E.* 6.23.2).[3] However, rather than the shorthand writers working simultaneously, it is more likely that they took turns to write as Origen dictated, as authors often composed their works in Graeco-Roman society by first dictating to a scribe. Full copies of the notes would then be produced, and calligraphers would produce the final copy – the ancient equivalent of 'publication.'[4] The provision of multiple copyists by Ambrose was probably so that Origen could keep dictating, while other scribes rested or worked on different sections. Such references to dictation provide no evidence of literary texts (or any others) being mass produced by simultaneous dictation to more than one scribe.

Second, the presence of itacisms is sometimes adduced as evidence for the use of dictation as the means by which a MS was reproduced. The suggestion is that, as a person heard a text read aloud and wrote it down, he did so using his own itacistic spelling. For example, **426** ($\mathfrak{P}^{66}$) shows an abundance of itacisms,[5] and this has been thought to imply that it was dictated. However, to deduce a process of dictation from the presence of itacisms in a MS fails for two reasons. First, it assumes that the exemplar had 'traditional' orthography, and that the itacisms were added – which is

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H.D. Saffrey (eds), *Mémorial André-Jean Festugière. Antiquité païenne et chrétienne* (Geneva: Cramer, 1984) 247-62. Cf. A. Dain, *Les manuscrits* (3rd ed.; Paris: Les Belles Lettres, 1975) 30-35.

[3] We might wonder if there were ever any professionally trained female scribes, but Eusebius refers to κόραις ἐπὶ το καλλιγραφεῖν ἠσκημέναις in connection with Origen's prodigious literary output (*H.E.* 6.23). If women were never normally trained as scribes (or weavers, etc.), may the very existence of female scribes by Origen's time be an indication of the in-house demand for Christian scribes? The use of κόρη might imply that these girls were from elite (Christian?) families which placed some store on education and that copying work was seen as an acceptable task for a girl to do – at home or in a house. See Haines-Eitzen, *Guardians*, 41-52, a revision of her '"Girls trained in beautiful writing:" Female scribes in Roman antiquity and early Christianity,' *JECS* 6 (1998) 629-46, for a treatment of some of these issues. Cf. Royse, *Scribal Habits*, 744-45. Nevertheless, since this phenomenon was apparently quite rare, this thesis will use masculine pronouns for scribes in general, unless it is clearly indicated otherwise.

[4] Cf. B.A. van Groningen, 'ΕΚΔΟCIC,' *Mnemosyne* 16 (1963) 1-17.

[5] E.C. Colwell, 'Scribal habits in early papyri: a study in the corruption of the text,' in J.P. Hyatt (ed.), *The Bible in Modern Scholarship* (London: Carey Kingsgate, 1966) 370-89; repr. in id., *Studies in Methodology in Textual Criticism of the NT* (*NTTS* 9; Leiden: Brill, 1969) 106-24.

almost impossible to prove. Second, in the very process of visually copying a MS a scribe 'dictated' to himself before reproducing the text on the writing surface; so that in practice the process of visually copying had many aspects in common with having a MS copied by dictation.[6] Indeed, even if the orthography was changed to be more itacistic, the scribe may not have been sensitised to any graphic difference at all, since he pronounced the alternatives identically.[7] Thus, the presence of itacisms may not be invoked to prove that a MS was dictated.[8] For this reason, the suggestion that *Codex Sinaiticus*, for example, was copied by dictation on the basis of apparent 'mistakes' in orthography is to be rejected.[9] In a similar vein, the presence of singular errors in certain MSS, including *Codex Sinaiticus* and the *Morgan Iliad*, has been cited as the most telltale sign of dictation; but neither is this kind of evidence compelling, since there are numerous other ways in which such errors might have occurred.[10]

Third, it can be shown in the case of various MSS that they can only have been produced by copying, not by dictation. For example, in **30-2**, the omission of TAYTHN (recto l. 10) is probably 'due to haplography, the copyist's eye having jumped to the following THN is his exemplar.'[11] Further, no example can be provided which can *only* have been produced by dictation. This is partly an argument from silence, but one which is worth some weight.

Thus, there is no convincing basis to claim that multiple (or even single) copies of literary works were produced by dictation in the first four centuries AD;[12] and this is also true in the case of Jewish MSS.[13] A claim that dictation was used in writing the

[6] Cf. Skeat, 'Use of dictation,' 187.
[7] On itacisms in the papyri of the period under discussion here see F.T. Gignac, *A Grammar of the Greek Papyri of the Roman and Byzantine Periods*, vol.1 (Milan: Istituto Editorale Cisalphino, 1975) 183-294.
[8] So Turner, *Greek Papyri*, 58. Cf. H.C. Youtie, *Textual Criticism of the Documentary Papyri. Prolegomena* (*BICS Suppl.* 6; London: Institute of Classical Studies, 1974) 51.
[9] So K. Lake, in his review of H.J.M. Milne and T.C. Skeat, *Scribes and Correctors of Codex Sinaiticus* (London: British Museum, 1938), in *CPh* 37 (1942) 91-96, here 94-95; D. Jongkind, *Scribal Habits of Codex Sinaiticus* (T&S, 3rd Series 5; Piscataway: Gorgias, 2007) esp. 250-52.
[10] Skeat, 'Use of Dictation,' 206-08 made the suggestion, but acknowledged the weakness of the argument. Cf. Turner, *GMAW*, 16-17.
[11] G.H.R. Horsley, 'An unpublished Septuaginta papyrus from the Nachlass of Adolf Deissmann,' *APF* 39 (1993) 35-38, here 38.
[12] T. Dorandi, 'Abschrift,' *NP* 1 (1996) 34-39, *BNP* 3 (2003) 774-78 allows for some use of dictation in the reproduction of literary works, but cites evidence only from the VIII to IX AD.
[13] Hezser, *Jewish Literacy*, 146.

Latin column of *Codex Bezae* (V AD) has also been shown to have no substance.[14] In fact, Hermas (*Vis.* 2.1.4) and Cornelius Nepos (*Att.* 13.25) refer to copying letter by letter, syllable by syllable, or by whole sentences, which certainly seems to refer to copying by sight.[15] In the case of Hermas, he found the task quite difficult - μετεγραψάμην πάντα πρὸς γράμμα οὐχ ηὕρισκον γὰρ τὰς συλλαβάς, 'I copied everything letter by letter, for I could not differentiate the syllables' (*Vis.* 2.1.4). Unless new data is forthcoming, we should conclude that visual copying of MSS was the means employed in the reproduction of MSS, at least during the period which this study has in view.[16] Thus, in our study of the orthography of the MSS on my database (Ch. 7, §7.7) the presence of itacisms in a MS will not be taken as evidence that it was dictated, since they were common. Rather, the hand of a non-professional writer is more likely indicated by the presence of quite unusual itacisms or an unusually large number of them, and these will be noted in that section.

b. *Correction*

The second matter to be noted is that, when a MS was copied in antiquity, it was almost inevitable that it would contain errors of transcription (cf. Cicero, *ad Att.* 13.23; Seneca, *de ira* 2.26). Even the simple matter of 're-inking the pen' could result in a scribe making a mistake due to a break in concentration.[17] However, MSS were sometimes checked against the exemplar from which they were copied, and corrections made. In **371** ($\mathfrak{P}^{45}$) the original scribe made a number of corrections,[18] as also in **406**, **426**, **497**, **565** and the *Bodmer Miscellaneous Codex* (**138+548+557+ 569+599+611+678+681+710**).[19] Rarely, another MS of the same work was also referred to, as is suggested for **426** ($\mathfrak{P}^{66}$),[20] although this would have been much less likely in remote locations until monastic communities became common. Further, corrections of literary texts were sometimes inserted by readers afterwards at varying times.

[14] D.C. Parker, 'A "dictation theory" of Codex Bezae,' *JSNT* 15 (1982) 97-112.
[15] Johnson, *Bookrolls*, 39-49 maintains that there is also no evidence for copying done line by line.
[16] Cf. D.C. Parker, *An Introduction to the NT MSS and their Texts* (Cambridge: CUP, 2008) 154-57, Royse, *Scribal Habits*, 83-90.
[17] P. Head, M. Warren, 'Re-inking the pen: evidence from *P.Oxy.* 657 ($\mathfrak{P}^{13}$) concerning unintentional scribal errors,' *NTS* 43 (1997) 469-73.
[18] B. Aland, 'The significance of the Chester Beatty papyri in early church history,' in Horton, *The Earliest Gospels*, 108-21, here 112-14. Royse, *Scribal Habits*, 114 notes two corrections by a second hand in this MS.
[19] Royse, ibid., 558-69.
[20] E.G. Turner, review of Skeat, 'The use of dictation,' in *JTS* 10 (1959) 150.

Corrections occur in a variety of forms. The first writing is sometimes washed off and the corrected text written in; or round brackets indicate a passage to be deleted. At other times a stroke was drawn horizontally or obliquely through letters, or a dot or line inserted above and/or below or on either side, or a combination of these. **426** and *P.Oxy.* 7.1015 (Panegyric on Theon, III AD) contain sponged erasures, and **426** also contains deletions with brackets. *P.Oxy.* 18.2161 (Aeschylus, *Diktyoulkoi*; II AD) has lines through letters, and *P.Oxy.* 9.1174 (Sophocles, *Ichneutai*; II AD) has deletions by means of lines above and below. The corrected text might be written above (often between dots), two words might have BA written above them (indicating that they should be written in reverse order), or omitted text might be written in the upper or lower margin with an anchor mark in the margin indicating where to look for the text which was to be inserted.

The fact that someone other than the original scribe has corrected a MS may be evident by the use of different handwriting or different ink. Sometimes this was the work of an official διορθωτής,[21] as in the *Hawara Homer*, but even such proofreading did not always remove every error.[22] Further, it is generally difficult to tell how much later the correction occurred, if in a different hand from *m*.1.

Thus, correction of the text of a MS in one form or another and with varying degrees of thoroughness was a common feature of the ancient copying of a literary work. In Ch. 7 (§7.2) we will examine corrections made to the MSS in my database to see how they bear on the question of the professionalism of the copyists.

3.3 **Factors relevant to copying**

We now turn to examine a number of factors which had an influence on the way in which MSS were copied.

a. *Writing surface and implements*

First, the writing surface used could vary markedly in quality. Writing on a papyrus roll was normally (for the first use) on the side with the fibres running horizontally,

[21] See Turner, *GMAW*, 15 n. 85 for the abbreviation ΔΙ indicating the work of a διορθωτής.
[22] Turner, *Greek Papyri*, 93.

the 'recto' (as opposed to the 'verso').[23] Rolls with writing on both sides ('opisthographs') were not common, although Pliny the Younger mentions some (*Ep.* 3.5.17) and *P.Yale* 2.103 (Isocrates, II BC) provides a rare example of a literary text written on both sides of a roll. Any cases of writing on both sides or on the verso of rolls in the MSS in my database first will be noted in Ch. 4 (§4.8).

For papyrus writers used a hard reed (κάλαμος) as a stylus or pen, which regularly needed to be re-inked and sharpened with a knife.[24] The quill became the standard for parchment, and produced thick and thin strokes depending on the angle at which it was held and the pressure exerted. Other writing implements included a ruler (κανών), a pair of compasses (διαβήτης, καρκίνοι), and a piece of pumice (κίσηρις) to smooth the nib of the pen or the writing surface itself.[25] All of these writing materials must have affected handwriting in some way, but their significance is mostly seen in the material chosen to receive certain kinds of texts, the sides used to receive the writing, the regularity of the handwriting, the effect they had on the writer's concentration, and the way in which they assisted or hindered his ability to copy a MS. In this thesis these factors will be examined in relation to the MSS on my database in Ch. 4 (§§4.1, 4.4, 4.5, 4.8).

b. *Book form*

i. Roll

A small number of early Christian MSS are in roll form, as are all Jewish MSS of the LXX. Our study of these MSS in my database will take account of page layout, breadth and height of columns, intercolumnar space, margin size and height of the roll, so far as they are recoverable.[26] Johnson's recent study has drawn conclusions about current conventions of page format; and since his study concerns literary rolls it will be important to compare his results with the present study of 'literary' Christian works which are (by contrast) largely in codex form. See Ch. 4 (§§4.6, 4.7) and Ch. 5.

[23] Cf. E.G. Turner, *The Terms Recto and Verso: The anatomy of the papyrus roll* (Brussels: Fondation Égyptologique Reine Élisabeth, 1978).
[24] Cf. Head, Warren, 'Re-inking the pen,' 467 (esp. nn. 7, 9), 468 (esp. n. 11).
[25] Turner, *GMAW*, 5 (n. 10), 6-7. Cf. Metzger, *MSS of the Greek Bible*, 18.
[26] Cf. Johnson, *Bookrolls*, 49-57, 85-156, esp. 57. On pp. 10-13 he discusses the methodology for reconstructing features of a roll from extant fragments.

ii. Codex

During the first four centuries AD the long-established practice of writing literary texts on rolls began to change. The earliest evidence for the use of parchment for a codex as an alternative to wooden boards comes towards the end of the first century AD (Quintilian, *Inst.* 10.3.30-32),[27] although τὰ βιβλία μάλιστα τὰς μεμβράνας (2 Tim 4.13) may well have been 'small parchment notebooks.'[28] Initially, such codices were used for sub-literary texts, such as 'notebooks' of various kinds; but from the late first century AD literary works also began to be written in codex form, although only fitfully at first (cf. Martial 1.2, 14.184, 186, 188, 190, 192).[29]

The codex was adopted for non-documentary works much more quickly among Christians, as the proportions of extant MSS show.[30] The reasons for this remain a matter for debate.[31] Perhaps early Christians had less hesitation about using the codex for their 'literature' because they did not view their texts in the same way as the 'high literature' of Roman society.[32] Further, they may have had fewer sensibilities as to how literature should be presented due to their own lack of social pretension or status in general.[33] Not all are in agreement with this suggestion,[34] but Christian MSS from Oxyrhynchus seem to support this 'non-literary' perception of early Christian books.[35]

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[27] Cf. C.H. Roberts, T.C. Skeat, *The Birth of the Codex* (London: British Academy, 1983) 11-23.
[28] S. Pickering, '2 Timothy 4:13. *The Books and the Parchments*,' *NTTRU* 1 (1993) 16-17.
[29] Roberts, Skeat, *Birth of the Codex*, 24-34.
[30] Roberts, Skeat, ibid., 35-66. Cf. J.K. Elliott, 'MSS, the codex and the canon,' *JSNT* 63 (1996) 105-23; T.C. Skeat, 'The origin of the Christian codex,' *ZPE* 102 (1994) 263-98; C.H. Roberts, 'The Christian book and the Greek papyri,' *JTS* 50 (1949) 155-68. Bagnall, *Early Christian Books*, 70-90 offers a stimulating recent discussion of the spread of the use of the codex amongst Christians as compared to wider Roman usage.
[31] See T.C. Skeat, 'The length of the standard papyrus roll and the cost advantage of the codex,' *ZPE* 45 (1982) 169-75; M. McCormick, 'The birth of the codex and the Apostolic life-style,' *Scriptorium* 39 (1985) 150-58; G.N. Stanton, 'The fourfold Gospel,' *NTS* 43 (1997) 317-46.
[32] Horsley, 'Classical MSS,' 76-83 makes a strong case for practical portability and convenience as the major factors in the Christians' adoption of the codex form, since there was not the hindrance of seeing their texts as 'literature' in the same sense as Graeco-Roman literature was viewed by the elite.
[33] Cf. Epp, 'The codex and literacy,' 17-26; id., 'The NT Papyri at Oxyrhynchus in their social and intellectual context,' in W.L. Petersen et al. (eds), *Sayings of Jesus: canonical and non-canonical: Essays in honour of Tjitze Baarda* (Leiden: Brill, 1997) 47-68, here 67-68; G.N. Stanton, 'Early Christian preference for the codex,' in Horton, *Earliest Gospels*, 40-49.
[34] L. Hurtado, 'The earliest evidence of an emerging Christian material and visual culture: The codex, the *nomina sacra* and the staurogram,' in S.G. Wilson, M. Desjardins (eds), *Text and Artifact in the Religions of Mediterranean Antiquity: Essays in honour of Peter Richardson* (Waterloo: Wilfrid Laurier University, 2000) 271-76 rejects Horsley's reference to the largely lower social status and educational experience of early Christians as a factor in the early Christian preference for the codex.
[35] E.J. Epp, 'The codex and literacy in Early Christianity and at Oxyrhynchus. Issues raised by Harry Y. Gamble's *Books and Readers in the Early Church*,' *CRBR* 10 (1997) 29. Cf. Roberts, *Manuscript*, 15, 20; Turner, *Typology*, 84-87.

Perhaps the copyists themselves had some part to play in the adoption of the codex form for Christian literature, if they did not perceive it as 'literature' in the traditional sense. However, there were probably a number of reasons for the codex quickly becoming the dominant form for Christian works, and (even though considerably later) for the Greek literary tradition as well.[36] When discussing the various features of the MSS in my database in Chs 4-7, and especially in the concluding Ch. 8, it will be important to take into account the varied kinds of texts and their being perceived as 'literary' or 'sub-literary,' as well as the way in which this might have contributed to the variety of professionalism evident in the various Groups. The predominance of the codex in most Groups will be one indication of how the texts were perceived; but the use of other forms such as single sheets will be especially notable as a sign of a 'non-literary' perception of those texts in certain Groups, and perhaps another sign of non-professional production.

When codices first began to be used for literary texts, there was little planning done and single quires were most common. However, when they came to be planned more systematically, scribes had to make decisions about page size, quire size, number of quires, facing sides being like or unlike, etc. The writing of the codex had to be planned more accurately than the roll, since writing was not placed on the pages after being sown into a book (or at least into quires), but beforehand.[37] The materials and format of the MSS in our database will be studied in Ch. 4 (§§4.5, 4.6) and Ch. 5.

c. *Exemplar*

The legibility of the exemplar from which the copyist was working must have played a crucial part in its reproduction. Yet since it is difficult to be certain about the character of any exemplar, including its orthography and whether it included *nomina sacra* (and how consistently and in what form they were used), this factor will not feature in our study of the MSS on my database. Nevertheless, it follows that caution should be exercised when drawing conclusions about the copyist of a MS on the grounds of its orthography or the presence and character of *nomina sacra* contained within it. This point will prove significant in our discussion of orthography in Ch. 7

[36] See J. van Haelst, 'Les origines du codex,' in A. Blanchard (ed.), *Les débuts du codex* (Paris: Brepols, 1989) 13-35. Cf. C.H. Roberts, 'The codex,' *PBA* 40 (1954) 169-204; Blanchard, 'Choix antiques et codex,' 181-90; Llewelyn, 'The development of the codex,' *NewDocs* 7.249-56.
[37] Turner, *Typology*, 55-88. Cf. G. Cavallo, 'Codex,' *NP* 2 (1997) 809-16, *BNP* 3 (2003) 497-500.

(§7.7) and of the faith of the copyists in the same chapter (§§7.10-11), the Summation of Part B and Ch. 8.

d. *Genre and purpose*

'The ancient reader clearly brought to a text of Aeschylus or Demosthenes a distinct and . . . definable set of rather strict expectations of what he or she would see in the unrolling.'[38] Wide margins were often used for certain kinds of texts, and not just in Egypt which affords most of our surviving physical evidence.[39] Especially from the fourth century, hands differed 'depending on the nature of the texts they were writing or copying,'[40] although this would have been less so if the writer were not well-educated or trained for that task. That said, the genre of a text had a decisive influence on the way in which it was copied; so, too, did the particular purpose for which the text was written.

As we noted above (in §3.3b.ii), the early Christians probably did not see their texts in the same category as 'high literature' like the works of Homer or Euripides. Hence, as with their adoption of the codex, they may not have seen the need to have their texts produced at the same high calligraphic level employed for certain literary works. Yet neither did they view them in the same way as documentary texts like tax receipts or nursing contracts.[41] Cicero's letters were initially personal communications but were later seen in literary terms due to the fame of the writer. In a similar way, some texts, such as the letters of the apostle Paul, started out as 'documents,' but changed as far as the Christians' perception of them was concerned, since they were preserved due to their having an ongoing authority apart from their original 'occasional' form. In Ch. 4 (§4.4) we will examine the handwriting of the MSS, and in Chs 4-7 other aspects will be reviewed, especially as these bear upon the perception of these texts by those who wrote or commissioned them either as 'literary' texts or more like documents.

[38] Johnson, *Bookrolls*, 160. He also notes that outside 'traditional literary genres,' i.e. with *Fachprosa* or documents, there is a fairly noticeable change to 'unbookroll-like productions.' M. van Rossum-Steenbeck, *Greek Readers' Digests? Studies on a selection of subliterary papyri* (Leiden: Brill, 1998) records 'details of layout, lectional signs, etc.' for four types of sub-literary text.

[39] Altman, 'The writing world of the Dead Sea Scrolls,' 3-4 (Jewish), 5-6 (Roman); available at http://www.st-andrews.ac.uk/~www_sd/altman_dss.html [accessed 2.9.2008].

[40] Cavallo, Maehler, *Greek Bookhands*, 4.

[41] Pickering, 'Literature and Scripture,' *NTTRU* 5 (1997) 62-68; Roberts, *Manuscript*, 15.

Indeed, the predominantly less 'literary' hand of many MSS shows that 'they were produced with a view not to beauty but to utility,' especially for public reading in church gatherings,[42] as the use of reading aids demonstrates.[43] By the Imperial period the conventions for writing literary texts included the use of a certain amount of punctuation and lectional signs, which reflected the perception by scribe and commissioner alike of what a text of that genre should look like and what aids such a text ought to provide for the kind of reader likely to read it.[44] In Ch. 4 (§§4.1d, 4.8) we will see that other MSS show that they were not intended for public reading, since they are written on the back of previously written materials, or perhaps in miniature format.[45] In Ch. 6 lectional signs in MSS will form a major part of this study.

Mention should be made here of magical texts, as well as amulets and charms, because of their different function and genre. These pose a particular problem, since many of them were never intended for public visibility and often exhibit a quite cramped, cursive and small hand in comparison with other Christian papyri.[46] In a number of ways, these MSS (Groups F and H in this thesis) often show a lack of professionalism by the presence of a number of irregularities in a range of features to be examined in Chs 4-7, probably due to their genre being perceived as quite different from the bulk of the texts in the other Groups.

e. *Writing context*

The physical, social and religious circumstances in which a copyist worked cannot but have had an impact on the copying of a MS, and may well have sometimes affected the professionalism with which the work was performed. We now review what effects these factors may have had: can anything be inferred from the MSS themselves about the context and the professionalism with which they were produced?

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[42] Gamble, 'Literacy, liturgy,' 34-35, quotation from p. 35. Turner, *Typology*, 84-86 shows that the majority of Christian books were written to be read out in public.
[43] Cf. Epp, 'NT Papyri at Oxyrhynchus,' 20-21.
[44] See Turner, *GMAW*, 8-13. Cf. K. McNamee, *Sigla and Select Marginalia in Greek Literary Papyri* (Brussels: Fondation Égyptologique Reine Élisabeth, 1992).
[45] Cf. Roberts, *Manuscript*, 1-25.
[46] B. Ehrman, 'The text as window. NT manuscripts and the social history of Early Christianity,' in id., *Studies in the Textual Criticism of the NT* (*NTTS* 33; Leiden: Brill, 2006) 369-71. Cf. E.A. Judge, 'The Magical Use of Scripture in the Papyri' in E.W. Conrad and E.G. Newing (eds), *Perspectives on Language and Text* (Winona Lake: Eisenbrauns, 1987) 339-349; Wassermann, *Epistle of Jude*, 59-64.

i. Physical circumstances

The physical circumstances in which a MS was copied must have had some effect on the final product. Of course, since we have no evidence as to what the copyists' circumstances were in the case of individual MSS, it is difficult to take this factor into account. Yet such matters as the lack of a writing desk,[47] or the weather in the case of a person writing outside, or the distractions of passers-by, are likely to be factors behind a poorly copied MS, especially in the case of a non-professional writer.[48] Nevertheless, the surviving papyri of Christian texts bear no obvious traces of such adverse situations, so they will be left out of consideration in this study.

ii. Social settings

The various settings in which books were reproduced by copyists would also have had some impact on the way in which they were copied.[49] What were those settings, and how did they affect the professionalism of the finished product?

α. *Private copying*

One of the most common settings in which MSS were reproduced was the 'private' one; yet what is a 'private' setting opposed to?[50] MSS were *privately produced* when they were written in a household setting (cf. Cicero, *ad Att.* 2.20.6; 2.22.7; Cornelius Nepos, *Att.* 13.3; Martial 2.8), although it was probably not common, even for elite households, to have a large staff of copyists on hand.[51] For this purpose, books might be borrowed so that a copy could be made.[52] We have noted *P.Oxy.* 18.2192 (late II AD) and *P.Oxy.* 63.4365 (IV AD) as examples of private production, and another is provided by Georgios of Cappodocia who lent books to Julian (later emperor) πρὸς μεταγραφήν (Julian, *Ep.* 23). In such settings, documents might be reused for literary texts, as in the case of **559-1** (*P.IFAO* 2.31, Revelation; II – early III AD; my Pl. 8).

[47] See esp. Turner, *GMAW*, 5-6. Cf. Skeat, 'Use of dictation,' 183-85; B.M. Metzger, 'When did scribes begin to use writing desks?' in id., *Historical and Literary Studies* (Leiden: Brill, 1968) 123-37; G.M. Parássoglou, 'Δεξιὰ χεὶρ καὶ γόνυ. Some thoughts on the positions of the ancient Greeks and Romans when writing on papyrus rolls,' *S&C* 3 (1979) 5-21.

[48] Royse, *Scribal Habits*, 98-100 offers an informative treatment of the possible effects of a writer's physical position on the accuracy of his copy.

[49] Cf. S. Pickering, 'Patristic literature and NT textual transmission,' *NTTRU* 6 (1998) 95-96; M. Beit-Arié, 'Transmission of texts,' 33-51, esp. 40-46.

[50] Johnson, *Bookrolls*, 158.

[51] Cf. A.F. Norman, 'The book trade in fourth century Antioch,' *JHS* 80 (1960) 122-26.

[52] Cf. Epp, 'Oxyrhynchus papyri in context,' 57-59.

However, even if a MS was copied in a private household, we do not normally know anything about the actual copyist or his level of professionalism. It depended on the expertise present within that household. Indeed, contrary to what we might have expected, such privately produced copies were sometimes more correct in their text than those produced for payment (see section β below). Thus, inaccuracy does not necessarily indicate a private setting, but it may indicate the hand of a non-professional writer, or at least one less concerned with producing a faithful copy or actually incapable of doing so. It is preferable, then, to distinguish between trained and untrained writers, not private and professional ones.[53] The accuracy of the MSS on my database will be discussed in Ch. 7 (§7.6), although this does not establish a private setting for their reproduction.

β. *Bookshops*

In the first century AD, any trained scribe working for payment by copying books could be said to be running a 'bookshop' (cf. Martial 1.2; 13.3). Some 'bookshops' had master copies (Horace, *Ep.* 1.20; Martial, 1.117). In the second century AD there were bundles of old books for sale at the harbour in Brundisium (Aulus Gellius, *Noct. att.* 9.4.1), and some hawkers travelled around selling ones they had copied (cf. *P.Petaus* 30). However, the quality of books produced in 'shops' was sometimes poor, as many ancient authors mention (Strabo 13.1.54, C 609; Martial 2.8.3-4; Seneca, *de ira* 2.26.2; Cicero, *ad Quint. frat.* 3.4.5; 3.5-6.6; *ad Att.* 13.23; Quintilian, *Inst.* Prooem. 7-8; Aulus Gellius, *Noct. att.* 5.3.4, 13.31.6). These comments, however, may need to be tempered in light of the possibility that they sprang from an element of snobbish disparagement of such copies by the litterati, rather than impartial recognition of non-professional production.

In the fourth century Chrysostom exhorted his hearers to buy at least parts of the NT to read at home (*Hom. Jo.* 11(10).1, *Hom. Col.* 9.1).[54] Although this might be taken to imply a wide availability, that is, via 'bookshops' in the sense that we might more normally think of them, Chrysostom could merely have been encouraging people to commission copies for themselves. For the first four centuries AD 'bookshops' were

[53] Johnson, *Bookrolls*, 159-60.
[54] C. Rapp, 'Christians and their MSS in the Greek East in the fourth century,' in G. Cavallo et al. (eds), *Scritture, libri e testi nelle aree provinciali de bisanzio*, vol.1 (Spoleta: Centro italiano di studi sull'alto Medioevo, 1991) 130, n. 6.

generally ancillary to private channels for the (re)production and circulation of literary texts.[55] Even the terms 'bookshop' and 'book-trade' are probably anachronistic, since they imply an activity at a commercial level, which is unlikely for the greater part of the period dealt with in this thesis. If we accept with Johnson that a 'bookseller' may have simply been a scribe 'on a public corner with his chest,'[56] then we must recognise that 'bookshop' is not an altogether appropriate term for this period. Further, the level of professionalism, including accuracy, evident in a MS may have had little relation to its origin in a 'bookshop.' Therefore, it would appear difficult to take cognisance of this context when assessing the professionalism with which a MS was copied.

γ. *Libraries*

Well before the Imperial period private libraries existed in the form of collections of texts belonging to scholars such as Aristotle; and the second century AD cannot have been exceptional in having bibliophiles like the one satirised in Lucian's *adv. indoctum*. There were also more 'public' or institutional libraries,[57] some of which had a staff of scribes (cf. Aulus Gellius, *Noct. att.* 7.17.3)[58] part of whose role was to make copies of books held there.[59] Domitian sent copyists to Alexandria to transcribe works for the libraries destroyed by fire (Suetonius, *Dom.* 20). There was probably a library in some sense at Qumran, judging from the number and variety of books found there,[60] although there is little evidence for the organised copying of books.

It would be appropriate to describe the collections of texts held by most (if not all) individual church congregations as libraries, even though they may have been quite limited in extent (cf. *P.Ashm.* inv. 3). An account of the persecution of Christians in Cirta in North Africa shows quite an extensive collection of books held by a church

[55] See R.J. Starr, 'The circulation of literary texts in the Roman world,' *CQ* 37 (1987) 221-23.
[56] Johnson, *Bookrolls*, 159.
[57] N.L. Collins, *The Library in Alexandria and the Bible in Greek* (Leiden: Brill, 2000) shows that the library at Alexandria had both scholarly and 'public' aspects.
[58] L. Casson, *Libraries in the Ancient World* (New Haven: Yale, 2001) 48-60. Casson also notes (pp. 98-100) that in the Roman period library personnel mostly copied works on location in the library itself.
[59] Casson, *Libraries*, 28. For studies of ancient libraries see H.J. de Vleeschauwer, 'History of the Western Library,' *Mousaion* 70 (1963) 1-32; 71 (1963) 31-99; 72 (1963) 100-139; 73 (1963) 1-73, 140-85; 74 (1964) 185-220; K. Vössing, 'Bibliothek,' *NP*, 2 (1997) 640-47, *BNP* 7 (2005) 504-11; C. Reitz, 'Bibliothek,' *NP* 13 (1999) 494-505, *BNP Classical Tradition*, III (2008) 228-41; C. Wendel, 'Bibliothek,' *RAC* 2.231-74.
[60] Hezser, *Jewish Literacy*, 161-62.

there (Optatus, *Gesta apud Zenophilum*).[61] Private Christian libraries existed in the homes of individuals, presumably among the wealthier citizens in the fifth century (cf. Sidonius Apollinaris, *Ep.* 9.4); while they were more visible and proliferated after the Peace of the Church, they can hardly have been without earlier precedent. From the third century larger holdings appear where there was a marked Christian presence, especially after Constantine declared himself a Christian. The existence of libraries in early Christian circles has also been suggested in connection with catechetical schools at Alexandria (cf. Eusebius, *H.E.* 6.23; Athanasius, *Apol. Const.* 4),[62] Jerusalem (Eusebius, *H.E.* 6.20; Jerome, *Ep.* 5), and Constantinople (cf. Eusebius, *Vita Const.* 4.36-37).[63] Origen's extensive personal library (cf. Gregory Thaumatourgos, *Pan. Or.* 13.150-53), whose texts were recopied onto parchment in order to preserve them (Jerome, *adv. Ruf.* 1.9; cf. Eusebius, *Vita Const.*, 4.36-37; Jerome, *Ep. Marc.* 34.1; *Vir. ill.* 112-13), provided the basis of a library at Caesarea, and Pamphilius augmented it (Eusebius, *H.E.* 6.32.3; Jerome, *Vir. ill.* 75).[64] There were also calligraphers in the monastery of Pachomius (*Vita Pach.* Π 40) in connection with a library there. Besides copying on a commercial basis, monks and hermits copied MSS for their own use or for their friends, presumably utilizing the monastic library.[65]

However, much of the evidence cited above is for the later period covered by this thesis, so that it would be anachronistic to suggest that Christian 'libraries' were in existence as early as the second century, and definitely rash to claim that they were common. For the first two centuries AD at least, little is certain about the existence of such collections of Christian works. Hence, it would be futile to suppose that scribes associated with them had certain scribal habits in copying MSS. Even for the later period, we know little about any 'staff' of scribes, or the level of professionalism with which MSS were copied there. Further, it is not possible to identify any MSS as having been copied in them, although their existence may have been a stimulus for a

[61] Noted in Gamble, *Books and Readers*, 145-49.
[62] Cf. G. Cavallo, 'Buch,' *NP* 2 (1997) 810-16, *BNP* 2 (2003) 721-27. R. van den Broek, 'The Christian "School" of Alexandria in the Second and Third Centuries,' in J.W. Drijvers et al. (eds), *Centres of Learning. Learning and location in pre-modern Europe and the Near East* (Leiden: Brill, 1995) 39-47, here 43.
[63] Cf. Casson, *Libraries*, 141.
[64] Cf. G. Cavallo, 'Scuola, scriptorium, biblioteca a Cesarea,' in id. (ed.), *Le biblioteche nel mondo antico e medievale* (2nd ed.; Rome: Laterza, 1989) 65-78; D.T. Runia, 'Caesarea Maritima and the survival of Hellenistic-Jewish literature,' in A. Raban, K.G. Holum (eds), *Caesarea Maritima. A Retrospective after Two Millennia* (Leiden: Brill, 1996) 476-95.
[65] Rapp, 'Christians and their MSS,' 134-36.

growing pool of trained scribes.[66] Hence, we can take little account of such settings in our study of the professionalism of the MSS on my database, despite the possibility that some later-dated MSS were produced in them.

δ. *Administration*

As the plentiful evidence from Egypt shows, scribes were employed in the Roman Imperial administration to perform numerous writing tasks.[67] These were not necessarily the administrative γραμματεῖς or κωμογραμματεῖς who, like Petaus, found writing quite difficult, but those employed to write documents of various kinds.[68] They worked in government offices, recording census details, land sales, and the like, as well as drafting and copying documents or writing letters for government officials. However, they made themselves available to write documentary texts or to copy literary texts for those who could not write for themselves or (more likely) had no inclination to do so.[69] For example, in *P.Tebt.* 1.1 and 1.2 (c. 100 BC) a village clerk wrote extracts from anthologies of Greek verse, and wrote them in a bookhand, presumably because they were in verse.[70] It may be that a number of the MSS on our database were penned by scribes in such administrative positions, although it is impossible to be certain. All we can try to ascertain is whether the hand in which they were written is that of a professional scribe or not.

ϵ. *Scholarly study*

Scholars in antiquity studied, copied and edited texts, applying various marks in addition to the normal signs which indicated corrections and reading helps. Such annotations might include *scholia*, *onomastica*, pointers to a commentary, and 'specific *critical marks* or signs, most commonly the χ sign and the > or *diplê* (διπλῆ), but also the *obelus* and *antisigma*, and others.'[71] These markers denote the need for '*critical* corrections,' and they occur in numerous MSS of literary works

[66] Cf. de Vleeschauwer, 'History of the Western Library. Part IV. The Early Christian Library,' *Mousaion* 73 (1963) 140-85; B. van Elderen, 'Early Christian Libraries,' in J.L. Sharpe and K. van Kampen (eds), *The Bible as Book. The Manuscript Tradition* (London: British Library, 1998) 45-59.
[67] Cf. Bagnall, *Egypt in Late Antiquity*, 91, 247 (esp. n. 92).
[68] Cf. N. Lewis, *Greeks in Ptolemaic Egypt* (Oxford: Clarendon, 1986) 123.
[69] Roberts, *Greek Literary Hands*, xi.
[70] Lewis, *Greeks in Ptolemaic Egypt*, 122-23 notes (p. 170, n. 21) this suggestion by P.W. Pestman; and the images on the *APIS* website (berkeley.apis.262 and berkeley.apis.283) bear it out.
[71] Epp, 'The NT papyri at Oxyrhynchus,' 64. He refers to Turner, *Greek Papyri*, 112-24.

from Oxyrhynchus.[72] The presence of such signs in a MS would show that it was a scholar's copy; but there are almost no early Christian MSS with such marks, except perhaps **55** (*P.Ryl.* 1.1) and **314** (*P.Grenf.* 1.5).[73] We will discuss these features in the MSS in my database in Ch. 7 (§7.2) below.

ζ. 'Scriptoria'

The existence and nature of 'scriptoria' in antiquity is often assumed in discussions of 'scribal habits' and MSS in relation to a number of the above contexts. However, the very word 'scriptorium' is in need of definition. Was it commonly used to refer to a writing room where books were copied? If not, is it anachronistic to use the term at all in the context of the early Roman Imperial period? There are a number of important issues that deserve discussion here, because they have an impact on how Christians had their MSS copied and what resources lay at their disposal.

First, when did the Latin word 'scriptorium' come to be used, and what did it refer to? The adjective 'scriptorius' ('of or belonging to writing') was used in the first century AD to describe a reed ('calamum scriptorium,' *writing* reed; Celsus, *de Med.* 5.28.12) and ink ('atramento scriptorio,' *writing* ink; ibid., 6.4; 8.4; cf. Scribonius Largus, *Comp.* 10).[74] In the seventh century Isidore, Archbishop of Seville (*Etymologiae* 6.9.2), used 'scriptorium' for the first attested time as a substantive to mean 'a metallic stylus for writing on wax tablets.'[75] Since the *OLD* has no reference to the substantival meaning 'metallic stylus for writing on wax tablets,' this usage appears to have arisen after the second century AD, the end of the period which it covers. The PHI Latin CDROM also contains no occurrences of 'scriptorium' meaning 'writing-room,'[76] but the period covered by this disk is similar to the *OLD*. Nor did the *Bibliotheca Teubneriana Latina* CDROM yield any examples of 'scriptorium' with this meaning.[77]

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[72] Cf. Epp, 'Codex and Literacy,' 32-33 on scholars' texts at Oxyrhynchus; id., 'Oxyrhynchus Papyri in Context,' 63-68.
[73] Epp, ibid., 67 (n. 52).
[74] *OLD*, *s.v.*
[75] A. Blaise, H. Chirat, *Dictionnaire latin-français des auteurs chrétiens* (Turnhout: Brepols, 1967) 745.
[76] I thank the late Dr. Charles Tesoriero (Univ. of New England) for his kind assistance in this search.
[77] *Bibliotheca Teubneriana Latina* CDROM (2nd ed.; Munich: Saur, 2002). This disk covers up to about AD 500.

Later, 'scriptorium' was used to refer to a '(monastic) *writing-room*' in Thangmar (*Vita Berwardi* ch. 6) and Ekkehard, fourth abbot of St. Gall (*Saxuum S. Galli continuatio prima* ch. 3).[78] Since Thangmar died before 1013 and Ekkehard c. 1060, these references come from about the beginning of the eleventh century. So, it appears that the use of 'scriptorium' as a substantive to describe a 'writing room' or 'writing workshop' was a very late usage in Latin, occurring at least by the tenth (or early eleventh) century.

Second, were there any Greek words equivalent to 'scriptorium' that were in use earlier than the tenth or eleventh centuries? On the *TLG* CDROM there is no record of a loan-word like σκριπτοριον or σκριπτωριον,[79] nor does any appear in standard Greek lexica like *LSJ*[9] or in Preisigke's *Wörterbuch*.[80] If such a loan-word ever existed, it has left no trace.

The noun γραφίον occurs well before the seventh century (Isidore, *Etymologiae* 6.9.2) as an equivalent to 'scriptorium,'[81] for γραφίον can mean '*stylus* for writing on wax tablets' and γραφεῖον could refer to a pen from at least V BC (Hippocrates, *Superf.* 8, f. l), a 'paint-brush' from at least I/II AD (Plutarch, *Mor*. 859e), and an 'engraving-tool, chisel' (in a verse inscription).[82] However, from II BC to I AD γραφίον (or γραφεῖον) did sometimes refer to a location where writing took place, but only in the sense of a 'registry' or 'record-office.'[83] Similarly, γραφή could also mean 'a record office' or 'archive.'[84] The only other meanings of γραφεῖον were 'tax on writing-materials' (*BGU* 1.277.ii.11) and (in the plural) 'fees for copying' (*BGU* 6.1214.12). Thus, γραφεῖον or γραφίον was not used in the sense of a 'writing room (for the production of books).'[85] An unpublished documentary papyrus (*P.Duke* inv. 988,

[78] J.F. Niermeyer, C. Van de Kieft, *Mediae Latinitatis Lexicon Minus* (rev. ed. by J.W.J. Burgers; Leiden: Brill, 2002) 1236.
[79] *Thesaurus Linguae Graecae* CD ROM (Irvine: University of California, 1992).
[80] F. Preisigke, *Wörterbuch der griechischen Papyrusurkunden* (Berlin: Harrossowitz, 1925-93).
[81] C.T. Lewis and C. Short, *Latin Dictionary* (Oxford: Clarendon, 1879) *s. v.*
[82] *IPhilae* 2.144.2. Cf. commentary in *IEgVers* 64 (*ad* l.2).
[83] Michel, 595.12 (Halicarnassus); *P.Ryl.* 2.65.4 (I BC); *P.Amh.* 2.110.21 (I AD).
[84] *IG* XI.2.203 *B*101 (Delos, III BC).
[85] The words receive no attention J. Diethart, 'Lexicographische Lesefrüchte. Bemerkungen zu "Liddell-Scott: Revised Supplement" 1996,' *ZPE* 123 (1998) 165-76; id., 'Lexicographische Lesefrüchte II. Weitere Bemerkungen zu "Liddell-Scott: Revised Supplement" 1996,' *ZPE* 128 (1999) 177-82; 'Lexicographische Lesefrüchte III. Bemerkungen zu "Liddell-Scott: Revised Supplement" 1996, und G.W.H. Lampe, *A Patristic Greek Lexicon*,' *APF* 48 (2002) 147-55; J. Chadwick,

II AD) mentions a γραφεῖον in line 2, but it would be incautious to assume too readily that this means 'scriptorium.' The papyrus is quite fragmentary and there is no transcription or translation available at this stage.[86]

Therefore, there is no evidence for the use of a Latin or Greek word in the early Roman Imperial period (or earlier) for a 'scriptorium' in the sense of a writing room or place dedicated to the copying of books. This usage arose much later.

Third, despite the paucity of linguistic evidence reviewed above, how has the word 'scriptorium' been used in modern times? Of course, it has been quite properly used to describe copying rooms or workshops in monasteries in the Byzantine and Medieval periods.[87] However, modern writers also use it with reference to the ancient world in connection with the households of certain elite Romans (cf. section α above),[88] 'bookshops' (cf. section β above),[89] archives,[90] and libraries (cf. section γ above).[91] Egyptian *temples* sometimes had a building called a 'House of Life,' which has been called a scriptorium;[92] but the predominant activity there was editing, not recopying texts. *P.Oxy.* 24.2387 (fr. 1) (I BC / I AD) contains a note indicating that the copy was checked by someone, perhaps a corrector (διορθωτής);[93] but it is by no means certain that this implies the existence of a scriptorium. Some suggest that Room 30 at Qumran served as a scriptorium, but this too is disputed.[94]

The positing of scriptoria in Christian contexts has sometimes claimed support from certain details in Christian MSS, such as the stichometrical markings in **497** ($\mathfrak{P}^{46}$),[95]

Lexicographica Graeca. Contributions to the Lexicography of Ancient Greek (Oxford: Clarendon, 1996).

[86] I acknowledge the help of Dr. Josh Sosin at Duke University for this information. See http://scriptorium.lib.duke.edu/papyrus/records/988.html on *P.Duke* inv. 988.

[87] See J. Irigoin, 'Pour une étude des centres de copie byzantins,' *Scriptorium* 12 (1958) 208-27; 13 (1959) 177-209; 'Centres de copie et bibliothèques,' in *Byzantine Books and Bookmen* (Washington: Dumbarton Oaks, 1975) 17-27.

[88] Cf. Starr, 'Circulation,' 213-23, esp. 221.

[89] Cf. Norman, 'Book Trade,' 122-26.

[90] Casson, *Libraries*, 1-16.

[91] Casson, *Libraries*, 28. Cf. K. Vössing, 'Bibliothek B.,' *NP* 2 (1997) 640-47, *BNP* 7 (2005) 504-11.

[92] D. Frankfurter, 'The scriptorium as crucible of religious change,' in id., *Religion in Roman Egypt. Assimilation and resistance* (Princeton: Princeton University, 1998) 238-64.

[93] Turner, *Greek Papyri*, 93 (and n. 55).

[94] See A. Ruderman, 'The Qumran settlement: scriptorium, villa or fortress,' *JBQ* 23 (1995) 131-32; R. Reich, 'A note on the function of Room 30 (the "scriptorium") at Khirbet Qumran,' *JJS* 46 (1995) 157-60.

[95] Zuntz, *Text of the Epistles*, 271-76.

'calligraphy' and signs of original correction in **426** ($\mathfrak{P}^{66}$),[96] and the use of the *diplê* as a 'critical' sign in the left margin of **671** (*P.Oxy.* 3.405).[97] The presence of *nomina sacra* in Christian papyri is sometimes taken to imply early centralisation, perhaps allied to the existence of scriptoria.[98] The rise of the codex as the predominant book form among Christians in the early centuries has also been attributed to a degree of organisation, planning and uniformity of practice,[99] which might imply the presence of scriptoria. Scriptoria have been thought to have existed in Christian monasteries from IV AD (cf. Rufinus, *Apol. Hier.* 2.11; Palladius, *Hist. Laus.* 32, 38),[100] or as part of Christian libraries and catechetical schools at Alexandria, Caesarea,[101] Jerusalem, and Constantinople[102] (cf. section γ on libraries above). It has even been suggested that the scribal assistance given to Origen implies the existence of a scriptorium, which 'foreshadowed the cathedral scriptoria of the Middle Ages.'[103] All of this 'evidence' is anachronistically inferential, and none is finally compelling as an indication of the situation in early Christian circles or in the wider Roman world.

Thus, we have to face the unwelcome fact, that we know little about the exact locations in which books were copied in antiquity, although 'scriptoria' (writing rooms) *may* have existed since MSS must have been written somewhere, perhaps normally in fixed locations. However, if there were no technical terms for 'writing rooms' until much later, and the evidence for their existence is not convincing, we should be hesitant about using the word 'scriptorium' with respect to antiquity. Perhaps, it would be preferable to avoid the term 'scriptorium' altogether, and even 'copying houses,' 'copy shops' or 'copying centres,' when discussing the first four

[96] Metzger, *Manuscripts*, 21-22. For **426** see my Pl. 4.
[97] Roberts, *Manuscript*, 24
[98] Roberts, ibid., 46. S.D. Charlesworth, 'Consensus standardization in the systematic approach to *nomina sacra* in second- and third-century Gospel manuscripts,' *Aeg* 86 (2006) 37-68 discusses this issue, also assuming the presence of scriptoria.
[99] T.C. Skeat, 'Early Christian book-production: papyri and MSS,' in G.W.H. Lampe (ed.), *The Cambridge History of the Bible*, vol. 2, *The West from the Fathers to the Reformation* (Cambridge: CUP, 1969) 54-79, here 72-73. D. Trobisch, *The First Edition of the NT* (Oxford: OUP, 2000) also suggests an 'edition' of the NT based on the codex form and the use of *nomina sacra*.
[100] Cf. C.P. Hammond Bammel, 'A product of a fifth-century scriptorium preserving conventions used by Rufinus of Aquileia,' *JTS* 29 (1978) 366-91; ead., 'Products of fifth-century scriptoria preserving conventions used by Rufinus of Aquileia,' *JTS* 30 (1979) 430-62; 35 (1984) 347-93. See T. Derda, *Deir-el-Naqlun: The Greek papyri (P.Naqlun I)* (Warsaw: University of Warsaw, 1995) 42-48 for the papyrological evidence.
[101] Cf. Cavallo, 'Scuola,' 65-78; Runia, 'Caesarea Maritima,' 476-95.
[102] Cf. Rapp, 'Christians and their MSS,' 134-35.
[103] C.H. Roberts, 'Books in the Graeco-Roman World and in the NT,' in Ackroyd, Evans (eds), *Cambridge History of the Bible*, vol. 1, 65.

centuries AD.[104] Even if a few scribes were involved in copying together, the word 'scriptorium' is an anachronistic and misleading one due its medieval and monastic connotations. The activities which characterised the copying of MSS at a later time in monastic scriptoria with fixed locations, regimes and styles, should not be assumed to have also occurred in Roman antiquity.[105]

The only real indication of MSS being copied with a degree of control, which the term 'scriptorium' might assume, is when there is evidence of a contemporary διορθωτής correcting a MS. For this reason we will analyse any corrections in the MSS in my database in Ch. 7 (§7.2), and attempt to correlate such corrections with the level of professionalism evident in the production of the MSS. The issue of whether MSS were copied by dictation, which also might be related to the presence of scriptoria, was discussed in §3.2a above. The assumption of scriptoria in which early Christian MSS might have been copied is anachronistically based on much later evidence and thus misleading; and this thesis takes the view that they did not exist in the form so often taken for granted.[106]

iii. Religious setting

The religious setting in which a copyist found himself may also have affected his work; and we might expect that in the present study this would be highly significant because of the nature of the MSS being examined.

α. *Judaism*

It is difficult to be certain that the scribes copying Jewish MSS were Jews themselves, but scribes copying texts for a Jewish community would have been governed by the expectations of that group, as any scribe had to follow the directions of those paying for his services (see §3.3g below), even if certain linguistic or cultural aspects of those

[104] For 'writing centres' see D. Ganz, 'Book production in the Carolingian Empire and the spread of Caroline Minuscule,' in R. McKitterick (ed.), *New Cambridge Medieval History*. vol. 2, *c.700–c.900* (Cambridge: CUP, 1995) 788. Casson, *Libraries*, 56-57 refers to 'copy-shops.' Turner, *Greek Papyri*, 90 refers to 'commercial copying-houses' and (p. 93) 'professional copying houses.' Cf. Cavallo, 'Scuola,' 67.

[105] Gamble, *Books and Readers*, 121-22 discusses a minimal definition of a scriptorium as a copying centre where more than one scribe operated; but such a 'definition' is little more than a suggestion of a loose collaboration between scribes. Using the word 'scriptorium' to describe this serves no useful purpose.

[106] For a fuller discussion of this issue see my paper, 'What is a scriptorium?' in *PapCongr.* XXIV (2007) vol.2, 781-92, now revised for the present context. Cf. Royse, *Scribal Habits*, 29-30.

texts were unfamiliar to him. In this sense, the Jewish context of a writer had at least some influence on the finished product. However, we cannot simply assume that specifically Jewish copyists produced all Jewish copies of the LXX, even if the treatment of the Divine Name implies that the scribes were familiar with Jewish scribal traditions, and it is probable that Jewish scribes would have been preferred.[107] Philo (*de Spec. Leg.* 4.163) extolled the worth of the *archon* himself copying the OT laws in order to know them personally in comparison to those who might do so for money or writing practice, and this might reflect a view that was held more widely.

The Greek text of the OT was reproduced by Jews because of the high value they attached to it,[108] although the texts from the Judean desert show no signs that they were copied by a 'scribal school' with fixed traditions.[109] It is not known that synagogues had access to 'skilled scribes' for this purpose,[110] but Jewish OT MSS in Greek were transcribed with a reasonable degree of accuracy and formality of script.[111] Kraft suggests some characteristics which distinguish early Jewish MSS,[112] which will be noted and compared with Christian MSS in Ch 4 (§§4.4, 4.6), Ch. 6 (§§6.1, 6.2) and Ch. 7 (§7.9). In the course of Chs 4-7 we will see whether Jewish MSS stand out in any way from the bulk of Christian MSS in this study, but it is doubtful whether the Jewish context had much influence on the copying of MSS, except for the care given to the copying of OT MSS.

[107] Kraft, 'The "textual mechanics" of early Jewish LXX/OG papyri and fragments,' in S. McKendrick, O. O'Sullivan, *The Bible as Book. The transmission of the Greek text* (London: British Library, 2003) 67. Cf. id., 'Continuities and discontinuities in the transitions from Jewish to Christian scribal practices,' Paper presented at the conference on *The Septuagint in Ancient Judaism and Early Christianity*. Bangor Theological Seminary, Bangor Maine, September 8-11, 2002. Available at: http://ccat.sas.upenn.edu/rs/rak/earlylxx/jewchrpap.html [accessed 6.12.2007].

[108] Even synagogues quite distant from Palestine had copies of at least some of the OT (cf. Acts 13.15, 27; 15.21; 2 Cor 3.15), and individuals might have had personal copies (cf. 1 Macc 1.56-57), although this would probably not have been common due to the sacred nature of the texts and the cost involved in their reproduction. On the latter see, most recently, Bagnall, *Early Christian Books*, 50-69.

[109] Tov, *Scribal Practices*, 299-302. Kraft, 'The "textual mechanics",' 51-72 shows that there was a varied 'scribal culture' in pre-Christian Jewish circles. Cf. id., 'Continuities and discontinuities,' 4.

[110] Roberts, *Manuscript*, 20.

[111] Cf. Treu, 'Bedeutung des Griechischen,' 123-44.

[112] Kraft, 'Continuities and discontinuities,' 4.

β. *Christianity*

As with Jewish MSS, the copying of Christian MSS must have been affected by their religious context in some ways.[113] While there are certain similarities between Christian MSS and Jewish ones from an earlier period, this may not have been due to semi-direct influence of Jewish scribal practices on Christian ones, since such features also occur in contemporaneous Roman scribal practices when copying 'sub-literary' texts. Roberts refers to paragraphing by initial space and enlarged letters as one trait that might have come from Jewish to Christian scribal practice.[114] However, this was not unknown in non-Jewish and non-Christian papyri. The *nomina sacra* in Christian MSS might be seen as 'expressions of a shared scribal piety,'[115] but this does not automatically follow.[116] The broader scribal culture was probably the overwhelming factor in Greek MS copying. In the early Christian centuries certain conventions were followed for Christian texts, such as the use of *nomina sacra*, the staurogram, the abbreviation ΧΜΓ, and the codex form itself;[117] and we will review their distinctiveness and significance further in Ch. 4 (§4.6) and Ch. 7 (§7.10).

From the fourth century references to Christian reproduction of their texts increase, and there is a new prominence of allusion to books, readers, and copyists in the literature from the desert Fathers.[118] It was probably only during that century that the copying of MSS (in monasteries) developed a measure of formality, as the evidence

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[113] J.K. Elliott, 'The NT text in the second century,' *NTTRU* 8 (2000) 9 notes some of the aspects of the religious environment, which could well have had an influence on the copying of Christian texts.

[114] Roberts, *Manuscript*, 18, n. 3. For enlarged initial letters see e.g. a petition (*P.Fay.* 216, AD 131) and a documentary text (*P.Col.* inv. 467b, II/III AD). For *ekthesis* of initial letters see e.g. apophthegms of Apistippos and Aesopus (*P.Mich.* inv. 25, I AD), Dioscorides, *Mat. Med.* (*P.Mich.* inv. 3, 2nd half II AD), a grammatical exercise (*P.Col.* 8.206, III–IV AD), and a number of other documentary papyri from I to II AD. Cf. R.A. Kraft, 'From Jewish Scribes to Christian Scriptoria: Issues of Continuity and Discontinuity in their Greek Literary Worlds,' SBL 2004 (http://ccat.sas.upenn.edu/rs/rak/earlylxx/SBL2004.htm) 3, 8-9. See also Tov, *Scribal Practices*, 301. Tov, ibid., 273-74 suggests the possible influence of Greek scribal practices in the MSS from Qumran. Id., 'Scribal Practices and Physical Aspects of the Dead Sea Scrolls,' in Sharpe, van Kampen, *The Bible as Book*, 27 notes the evidence for 'the cross-cultural influences of the transmission of texts in antiquity' (i.e. from the copying of Greek to the copying of Aramaic texts).

[115] L. Hurtado, '$\mathfrak{P}^{52}$ (*P.Rylands* Gk. 457) and the *nomina sacra*: method and probability,' *TynBul* 54 (2003) 5, n. 13.

[116] See Ch. 7 (§7.10) and the Summation of Part B for discussion of this matter in relation to the issues raised in this thesis.

[117] Cf. Hurtado, 'Earliest evidence,' 271-88; id., *The Earliest Christian Artifacts* (Grand Rapids: Eerdmans, 2006). On ΧΜΓ see C. Wessely, 'ΧΜΓ,' *MPER* 6 (1897) 118 ; A. Blanchard, 'Sur quelques interpretations de ΧΜΓ,' *PapCongr.* XIV (1975) 19-24; Horsley, 'The origin of the abbreviation ΧΜΓ: a Christian cryptogram?' *NewDocs* 2.177-80; Llewelyn, 'The Christian symbol χμγ, as acrostic or as an isopsephism,' *NewDocs* 8.156-68.

[118] Robinson, *The Pachomian Monastic Library*, 2-3.

of Eusebius (*H.E.* 6.23.2, 5.28.8-19, 5.20.2) and Origen (*de Princ.* Pref.) implies. Indeed, the copying of religious texts became a highly honoured aspect of ascetic practice (cf. Palladius, *Hist. Laus.* 32.12, 38.10, 45.3).[119] Epiphanius and others worked as calligraphers on a commercial basis (*Vita Epiph.* 8; *Vita Hypat.* 42.5; *Vita Porph.* 5), perhaps copying a wide range of texts.[120] The fourth century was a period of change in many things, not least in the visibility of Christians in the wider society. So, we might expect this to affect the way in which MSS were copied; and in Chs 4-7 we will explore whether any changes in 'scribal habits' are observable during that period.

f. *The copyist as an individual*

I have shown above (§3.2a) that the evidence for MSS having been copied by dictation is very weak. Accordingly, the part played by the individual copyist was the most significant factor in text production in view of 'the intensely personal element in ancient scribal copying – the human hand working with hand-made pen and ink across a hand-produced writing surface.'[121] There are three points to be made here. *First,* a writer's linguistic background must have had a bearing on the MS which he wrote. An example from an earlier period is that of some scribes in Egypt who were more accustomed to writing Demotic than Greek, as *PSI* 6.563 + *P.Cair.Zen.* 4.59625 + *P.Lond.* 4.2093/2129 (255BC) shows.[122] Further, a scribe's itacisms would have been evident in his writing, as a reflection of his speech.[123] Any linguistic inability or habits will be noted and discussed below, especially in Ch. 7.

Second, it has been suggested that a copyist's personal Christian views or knowledge of Palestine may have affected the way in which he copied a Christian MS.[124] The view has achieved prominence recently, that Christian copyists sometimes felt free to

[119] Cf. Jerome's letters urging female ascetics to read and copy texts (e.g. *Epp.* 22, 107, 130).
[120] Rapp, 'Christians and their MSS,' 135, n. 26. Rapp, ibid., 133-36 refers to 'monks . . . working as scribes on an individual basis,' probably as calligraphers and in other crafts.
[121] S. Pickering, 'NT MSS and textual questions: a recent introduction,' *NTTRU* 4 (1996) 21. Cf. Turner, *Typology,* 73-88.
[122] Clarysse, 'Egyptian scribes,' 186-201, here 195-200.
[123] Cf. Gignac, *Grammar of the Greek Papyri,* vol. 1, 183-324; J.W. Voelz, 'The language of the NT,' *ANRW* 2.25.2 (1984) 939-40.
[124] Cf. B.D. Ehrman, *The Orthodox Corruption of Scripture. The effect of Christological controversies on the text of the NT* (Oxford: OUP, 1993); F. Wisse, 'The nature and purpose of redactional changes in Early Christian texts,' in W.L. Petersen (ed.), *Gospel Traditions in the Second Century: origins, recensions, text and transmission* (Notre Dame: University of Notre Dame, 1989) 39-53.

alter the text as they wished, wanting to make the text say what they thought it should say, or to say it more clearly.[125] This suggestion has been evaluated from a number of points of view, and caution urged in assigning the reasons for textual variation to copyists.[126] Little is known about the Christian convictions of copyists, although it is widely supposed that most scribes copying early Christian texts were Christians themselves. For example, 'harmonisations' in NT papyri such as **371** (𝔓[45]) are said to be 'inconceivable for a non-Christian scribe,' since they imply a degree of familiarity with other parts of the NT;[127] and it would be likely that some Christians did copy Christian texts. Lucian alludes to τοῖς ἱερεῦσιν καὶ γραμματεῦσιν of the Christians (*Peregr.* 11), which probably indicates that there were scribes among their number. In the fourth century some Christians were copyists by trade (Epiphanius, *adv. Haer.* 67.1.1-4; 67.7.9), as is shown when a Christian scribe was asked to copy a book.[128] However, not all Christian copyists of Christian MSS were trained and competent, as the example of Hermas already adduced attests (see §3.2a above). It has been suggested that the use of *nomina sacra* shows that the copyist was a Christian; but this does not automatically follow, and will be discussed at length in Ch. 7 (esp. §7.10).

Third, some copyists simply had not attained the levels of professionalism that others had, or were still inexperienced apprentices (cf. Ch. 2, §2.3b.i). Jerome complained about carelessness by copyists (*Ep.* 71.5), and he was not alone; for some who copied literary texts were not experienced scribes.[129] *BL* Pap.126 (Homer, *Iliad*, late III AD) and *P.Oxy.* 27.2458 (Euripides, *Cresphontes*, III AD) show a lack of professionalism, which is also evident in **537** (*P.Oxy.* 4.657) in such matters as variation in the number of lines per column and a deterioration in the lettering as the scribe went on.[130] Further, **497** (𝔓[46]) seems to be 'a rough and inadequate copy of a good exemplar,'[131] and **548** (𝔓[72]) and **565** (𝔓[47]) contain a range of irregularities and uneven features and

[125] This is the burden of Ehrman in *Orthodox Corruption*, and others who have followed him.
[126] See many of the articles in H.A.G. Houghton, D.C. Parker (eds), *Textual Variation. Theological and social tendencies?* (*Texts and Studies*, 3rd Series, 6; Piscataway: Gorgias, 2008). In particular, U. Schmidt, 'Scribes and Variants – Sociology and Typology' (pp. 1-24) gives a telling critique of Ehrman's views about the activities of scribes, noting the need to take into account the reality of copying MSS in antiquity. Cf. Parker, *Introduction to the NT MSS*, 152-54.
[127] Aland, 'Significance,' 113.
[128] B. Ward, *The Sayings of the Desert Fathers* (rev. ed.; London: Mowbray, 1981) 34, 145-46.
[129] Cribiore, *Writing*, 10-11.
[130] See Head, 'Re-inking the pen,' 469-70.
[131] Aland, 'Significance,' 116. Cf. Royse, *Scribal Habits*, 199-358. We have previously noted, however, the difficulty of knowing much about the character of the exemplar (§3.3c).

are far from being calligraphic.[132] The hand of **462** (𝔓[52]; see Pl. 7) 'falls well short of the skills of the best book hands of the day' (see Pl. 7) for, as I have observed at first hand, the scribe's ability produced a clear copy, but 'did not extend to a very tight regularity in the size or spacing of letters.'[133]

Thus, not all copyists were fully competent scribes. So, in the writing of MSS there was a wide range of levels and types of expertise; and this thesis will examine the extent to which Christian MSS from the second to the fourth centuries show that variation in skill, expertise and level of training, evident particularly in their handwriting (see especially Ch. 4, §4.4). Further, the linguistic competence in Greek and the religious conviction of a copyist may perhaps have affected his copying of a MS, and these will also be discussed in Ch. 7 (§§7.7, 7.10).

g. *The commissioner's expectations*

One matter to be borne in mind is that the character and expectations of the individual or collective commissioner would have had an effect on the way in which a MS was copied, whether the work was done by a scribe for payment or by a slave in a wealthy household. Those who commissioned the copying of a MS may have varied significantly in their ability to pay, and churches were sometimes quite poor, as *P.Oxy.* 33.2673 (AD 304) shows for a church in Oxyrhynchus. As such, they could not normally expect the same level of care and professionalism to be evident in the copy produced.

Aland even asks how the 'communities' which commissioned the NT papyri **371** (𝔓[45]), **497** (𝔓[46]), and **565** (𝔓[47]) responded to them as finished products, especially in relation to the accurate reproduction of their exemplars.[134] Such a question is fruitless, since the only copies available are those that survived, which were presumably acceptable. Further, it is unlikely that anyone would have been in a position to question the scribe's accuracy. Although this factor in the copying of a MS must be

[132] On this basis Roberts, *Manuscript*, 21 suggests that many writers were 'tradesmen, farmers, minor government officials.' However, this does not adequately distinguish between trained scribes and occasional writers, let alone those who could barely write.
[133] Hurtado, '𝔓[52] (*P.Rylands* Gk. 457),' 3, 11-12.
[134] Aland, 'Significance,' 108-21.

kept in mind, this thesis has not been able to identify any means by which to discern a commissioner's expectations for a copy or response to the final MS.

h. *Writing and reading*

It is appropriate at this point to examine the nature of reading and writing in II–IV AD, including the ways in which texts were read in Christian groups, since the reading of texts may have influenced the manner in which they were written. There are two initial matters to be raised.

First, skills of reading and writing went hand in hand. This is evident from Plato *Charm*. 161d3, and is also apparent when Cornelius Nepos refers to 'both these accomplishments' in the household of Atticus (*Att.* 13.3); and Quintilian implies the same (*Inst.* 1.1.25-34). Further, in *P.Oxy.* 4.724.9-10 (AD 155), an apprenticeship contract for a δοῦλος to learn to be a shorthand writer, he would be deemed competent τοῦ | παιδὸς ἐκ παντὸς λόγου πεζοῦ γράφοντος καὶ ἀναγεινώσ[κον]τος ἀμέμπτως | . . . ('when the boy can write and read from prose of all kinds faultlessly'). Indeed, the two years required for the apprenticeship is evidence that learning to write and read took quite some time to master. Reading and writing were taught together in the early years of schooling; but the acquisition of one skill did not automatically confer ability in the other.[135] Yet, it is still reasonable to suggest that readers of texts were normally those who could also write.

Second, when books were read, who actually did the reading? While some upper class, educated and literate authors read out their own texts, especially in draft form in order to receive comments from friends, in most situations texts were read aloud by a slave, sometimes called a 'reader' (*lector*, ἀναγνώστης), who had learned to read and write.[136] This 'craft literacy' equipped slaves to function usefully both as amanuenses

[135] Cribiore, *Writing*, 9-10, 13. Epp, 'Codex and Literacy,' 28-32, too easily treats the ability to read and the ability to write as one skill, as if the one necessarily conferred the other.

[136] Starr, 'Circulation,' 223. For attestations of Latin *lector* and Greek ἀναγνώστης see the entries in *OLD*; LSJ; *PGL*; R.E. Latham, D.R. Howlett, *Dictionary of Medieval Latin from British Sources. A-L* (Oxford: Oxford University for the British Academy, 1997). On readers in early Christian groups see H. Leclercq, 'Lecteur,' in *DACL* (Paris: (n. p.), 1907-) 8.2 (1929) 2241-69; F.L; Gamble, *Books and Readers*, 203-31; J.G. Davies, 'Deacons, deaconesses and the Minor Orders in the Patristic period,' *JEH* 14 (1963) 1-15 (esp. 10-14); C. Spicq, *Theological Lexicon of the New Testament* (1978-82; ET, Peabody: Hendrickson, 1994) Vol. 1, 101-02; Blaise, Chirat, *Dictionnaire latin-français des auteurs chrétiens*, 490; E. Wipszycka, 'Les ordres mineurs dans l'Église d'Égypte du IV^{e} au VIII^{e} siècle,' *JJP*

and copyists, as well as to 'read' texts as 'performances,' perhaps as after-dinner entertainment or to form the subject matter of thought and discussion for a circle of their master's acquaintances.[137] Pliny attests this practice (*Ep.* 1.13, 1.15, 2.19, 3.5, 3.18, 4.5, 5.12, 7.17, 9.17, 36.4), as do Cornelius Nepos (*Att.* 14.1) and Aulus Gellius (*Noct. att.* 3.19.1). Indeed, such reading might even be used to pass a sleepless night (Suetonius, *Aug.* 78.2). However, as we observed in Ch. 2 (§2.3a), those who were able to read (especially in public) probably comprised a very small proportion of the population in the early Roman Imperial period.

i. Reading and writing

Was there a relationship between the fact that a MS was written to be read out in public and the manner in which it was produced? *First*, if a work was written on the back of a previously-used MS, it was probably not the final copy to be used for public reading.[138] So, drafts were sometimes written on the back of previously-used rolls. Thus, *P.Coll.Youtie* 66 (AD 253-60) contains a draft of a letter and two drafts of a petition on both recto and verso. In Ch. 4 (§§4.8a, 4.8b) we will discuss Christian texts on reused papyri.

Second, the script size would need to be adequate to be read with a degree of ease in a public setting. The small size of some MSS, such as the Cologne *Life of Mani* miniature codex (V AD) with its tiny script, shows that they were manifestly not written to be read out in public. We will discuss the size of letters in the MSS in my database in Ch. 6 (§6.9; cf. §§6.10, 6.11).

Third, if a literary text was intended for use in a public reading, we might suppose that 'aids for readers' would be used so that it could be read more easily.[139] While this is a natural assumption, such aids were not commonly or uniformly used in MSS containing literary texts in our period. In Ch. 6 below we discuss the occurrence of such readers' aids in Christian MSS.

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23 (1993) 181-215; R.A. Derrenbacker, Jr., 'An introduction to writing, books and readers in the Ancient world,' *ATLASP* 52 (1998) 205-29; repr. in id., *Ancient Compositional Practices and the Synoptic Problem* (Leuven: Leuven University, 2005) 19-49.

[137] Cf. H. Blanck, *Das Buch in der Antike* (Munich: Beck, 1992) 71-74.

[138] Roberts, *Manuscript*, 9.

[139] See Turner, *GMAW*, 7-14 on such 'aids for readers.' On readers adding their own aids see Johnson, *Bookrolls*, 35-36.

Fourth, it was not a priority to retrieve information from literary MSS, so their layout did not often contain assistance to facilitate this.[140] However, we will review below the role of titles and headings, as well as *paragraphoi* and other section markers, in Ch. 6 (§§6.1, 6.2) below.

ii. Readers in early Christian circles

At this stage it is appropriate to make some brief observations about reading and readers in early Christian groups. There is some uncertainty about when 'readers' became an official (minor) 'order' in Christian churches, some tracing this back to the second century and others making it somewhat later. Certainly, from at least the fourth century AD 'readers' had a place in Christian meetings.[141] However, there is no dispute that the role of 'readers' in early Christianity took its rise from the fact that texts were 'read' aloud in its gatherings.

From at least I AD, even Christian sources indicate that Jewish groups had their sacred texts, especially the OT, read out in synagogues right around the Mediterranean and beyond (cf. Luke 4.16-17, Acts 13.15, 27, 15.21, 2 Cor 3.14-15).[142] Although they were occasionally read outside the synagogue context (cf. Acts 8.28, 30, 32), this was probably quite unusual because of the limited access that most people had to them. Further, while some people were expected to have 'read' the OT scriptures (e.g. Matt 12.3, 5, 19.4), it is likely that this is a reference to their having 'heard' the texts read out to them in the synagogue rather than actually having had access to texts and reading them for themselves. Thus, the reading of the OT occurred primarily in the synagogues, so it would not be surprising if Christian texts were mainly known by virtue of having heard them read out in church gatherings.

'Reading' and 'readers' are referred to in a number of contexts in the material which informs us about early Christianity. When they met, Christians engaged in a variety of verbal and aural activities, including singing, praying, teaching and the like (1 Cor

[140] W.A. Johnson, 'Towards a sociology of reading in Classical Antiquity,' *AJPh* 121 (2000) 593-627, here 615-24.
[141] See the references in n. 136 above.
[142] Cf. M. Graves, 'The public reading of Scripture in Early Judaism,' *JETS* 50 (2007) 467-87; Hezser, *Jewish Literacy*, 452-63. On the use of ἀναγνώστης in the Greek OT see T. Muraoka, *A Greek-English Lexicon of the Septuagint, Chiefly of the Pentateuch and the Twelve Prophets* (Louvain: Peeters, 2002) *s.v.* - '*public reader*, also competent to teach and interpret.'

12.7-10, 14.26, Eph 5.19); and it was fundamental then for someone to 'read' (ἀναγινώσκω) their sacred texts (e.g. Eph 3.4, Col 4.16, 1 Thess 5.27, 1 Tim 4.13, Rev 1.3).[143] By IV AD, when the authorities were searching for copies of Christian books in the town of Cirta in North Africa in AD 303 in order to destroy them, the bishop said that the readers (*lectores*) would have the copies of their writings being sought.[144] Perhaps the books were kept in the readers' homes for security's sake in troubled times, but it is equally possible that they were kept at home so that the readers could practise reading them before the public meeting. Indeed, Eusebius described such 'public' reading using the verb δημοσιεύω (*H.E.* 3.3.6, 3.31.6).[145] The Christians' sacred texts were an important basis for their faith, and the 'reading' of some texts seems to have taken place most commonly when Christians assembled, just as in Jewish synagogues. It may also be that this practice was partly adapted from Graeco-Roman associations which had readings of texts that were special to them.

Did Christians read their texts any differently from others? There is no reason to think so, but the communal context must have shaped not only what was read but how much was read and what focus this had for group meetings. Further, the confluence of Jewish traditions with Graeco-Roman culture must have exercised an impact on the way in which texts were read out, at least in the early period.

What aspects of the reading of their scriptures in early Christian circles were continued on from practices in Jewish groups? Although the chanting of sacred texts in Judaism (and also in Christian circles) may not have been as early as Gamble suggests,[146] the Christians' mode of reading them in their meetings must have owed something to current Jewish practices, since the Christians took their rise in Jewish groups and their texts included the OT books, amongst other works. One practice which does seem to have carried over is the reading of texts from sight rather than reciting them from memory (cf. Lk 4.17, 1 Tim 4.13).[147] Since most Christian groups became less 'Jewish' in membership (and hence in culture) from at least the later part

[143] Cf. ἀκούω in Rev 1:3, 22:17-18.
[144] *Gesta apud Zenophilum consularem*, Migne, *PL*, 43.793-800 (esp. 794-95).
[145] On δημοσιεύω see Lampe, *PGL*, *s.v.*; LSJ *s.v.*, *Rev. Suppl. s.v.*
[146] Gamble, *Books and Readers*, 224-31.
[147] Cf. J.T. Burtchaell, *From Synagogue to Church* (Cambridge: CUP, 1992) 272-388; L.L. Morris, 'The Gospels and the Jewish lectionaries,' in R.T. France, D. Wenham (eds), *Gospel Perspectives*, vol. 3 (Sheffield: JSOT, 1983) 129-56.

of I AD, practices that were obviously Jewish probably became less common unless held in place by a strong tradition. It seems that the practice of reading their sacred books from sight rather than from memory is one such practice that carried on in Christian groups as part of that core of tradition.

Instead of Jewish influences, other writers have pointed to the wider Graeco-Roman background as likely to have formed the central matrix from which early Christians drew their reading practices. Two major studies have appeared which attempt to formulate the manner in which 'reading' was done in Graeco-Roman society, and then to portray how one of the NT books may have been read in light of this.[148] Both Shiner and Shiell draw attention to the fact that in the Graeco-Roman world 'reading,' especially the reading of literary works, was frequently a public, indeed communal, activity more aptly described as a 'performance,' very much with the audience and their reaction in mind. Such 'readings' seem to have had common features, attested in epigraphic and literary sources, which show that 'reading' could be done by the text being memorised beforehand and a rendition given without written material; but it might also be done by reading from a written text. The elements of such readings would have included certain common gestures with the hands, body movements, facial expressions and voice modulation, and audiences would have responded in certain ways to some of these set features, often with applause and acclamation.[149]

Perhaps in churches where some members had slaves who could read in this manner, they were given this task by their masters when the church met in that house. Thus, the 'readings' may well have taken over in some cases aspects of the character of the Graeco-Roman pattern with gestures, facial expressions, and the like. However, evidence that this was the normal pattern from early times is lacking, although it may have become more common as Christianity came to be accepted on a wider front in Graeco-Roman society. Indeed, it may simply have been considered so 'normal' that it needed no comment, although this is not easy to confirm, especially in light of the

[148] W. Shiner, *Proclaiming the Gospels. First-century performance of Mark* (Harrisburg: TPI, 2003); W.D. Shiell, *Reading Acts. The lector and the early Christian audience* (Leiden: Brill, 2004). For the broader background see also W.A. Johnson, 'Reading cultures and education,' in P.C. Patrikis (ed.), *Reading Between the Lines. Perspectives on foreign language literacy* (New Haven: Yale University Press, 2003) 9-23; id., 'Sociology of reading,' 593-627.
[149] See esp. Shiell, *Reading Acts*, 34-136.

fact that we know so little about how Christians read their texts in the early centuries.[150]

Thus, we know that it was the normal practice for Christians to have their sacred texts read aloud in their meetings, however the readers might have come by their ability to read. But, given the low literacy rates in antiquity, in any one congregation there would have been few who could have done so.[151] Most Christians in a church would have 'heard' such texts, rather than visually 'read' them for themselves, whether the suggestions put forward by Shiner and Shiell have any validity or not. In this study, it is the matter of the reproduction of their texts that is more to the point, and in Ch. 6 we will endeavour to assess if the MSS themselves show any signs that they were copied in order to be read out in public.

iii. Reading in *scriptio continua*

Finally, it should be observed that, despite the presence of spacing between words and punctuation in some school exercises and documentary MSS, most literary texts were written in *scriptio continua* during the period covered by this study.[152] Since this was the norm for Christian MSS as well (see Ch. 6, introduction), it is apposite to ask how this affected those who undertook to read those texts. Since it was usual for reading to be done aloud, even when alone,[153] it is possible that reading a text aloud was of some assistance to the reader of texts written in *scriptio continua*, giving him time to construct the words before actually saying them. On the other hand, it might have made reading more difficult, because there was little help in dividing the syllables and few indications of sentence or section division.[154] Dionysius of Halicarnassus (*Comp*. 25) and Quintilian (*Inst*. 1.1.34) both allude to the difficulty of learning to

[150] See the reviews of Shiner's work by W.H. Kelber, *CBQ* 67 (2005) 157-58 and W.R. Telford, *JTS* 58 (2007) 633-38.
[151] On literacy in early Christian circles see Gamble, 'Literacy, liturgy,' 29-32; cf. id., *Books and Readers*, 250 n. 31 on illiteracy among early Christian leaders.
[152] Johnson, 'Reading cultures and education,' 14. Cf. Cribiore, *Writing*, 48.
[153] Cf. W.A. Johnson, 'Sociology of reading,' 594-600; B.M.W. Knox, 'Silent reading in Antiquity,' *GRBS* 9 (1968) 421-36; Gamble, *Books and Readers*, 203-205. However, A.K. Gavrilov, 'Techniques of reading in Classical Antiquity,' *CQ* 47 (1997) 56-73 and M.F. Burnyeat, 'Postscript on silent reading,' *CQ* 47 (1997) 74-76 argue that at least some reading in antiquity was not 'silent reading.'
[154] Cf. Cribiore, *Writing*, 87. Cribiore, ibid., 8-9, 47-48, 148-150 notes the difficulty of learning to read in Graeco-Roman Egypt, when texts were mostly written in *scriptio continua*. Cf. Turner, *GMAW*, 7 (esp. n. 28). Turner also notes there that his No. 69, *P.Oxy.* 3.473 (honorary decree, AD 138-60), frequently groups letters into words, and in *P.Col.* 4.122 (181 BC) almost every word is spaced from every other. He compares *P.Oxy.* 2.291 (letter of recommendation, AD 25) and *P.Ryl.* 3.486 (epyllion, I AD).

read. Cribiore refers to Aulus Gellius (*Noct. att.* 13.31.5) in this regard, and comments that '[R]eading a text aloud with expression and appropriate pronunciation was not a simple matter,' and that attempting to read 'without careful practice' could result in embarrassment.[155] Dividing a text into its sense units was a major part of the reader's task, and this would have needed practice.

Amongst the early Christians, Irenaeus alludes to this difficulty and the necessity of reading correctly, in order not to distort the meaning (*adv. Haer.* 3.7.2): ʾΕὰν οὖν μὴ προσσχῇ τις τῇ ἀναγνώσει μηδὲ διὰ τῶν διαστημάτων τῆς πνοῆς μηνύσῃ ἐπὶ τίνος λέγεται, ἔσται οὐ μόνον ἀκατάλληλα ἀλλὰ καὶ βλάσφημα ἀναγινώσκων ('So if a person does not take care in reading or indicate through intervals of breathing on what he is speaking, he will be reading not only incongruities, but also blasphemy'). Irenaeus thus recognised that high hopes could not be held for every reader's ability to read a text well; and he cannot have been alone in his disappointment and criticism. Hermas also seems to have had a similar difficulty in mind when he described his own efforts to copy *to biblaridion,* as we noted in §3.2a above. In Ch. 6 (§6.12c) we will discuss the significance of the fact that almost all MSS in my database are written in this manner.

3.4 **Conclusion**

We have reviewed a number of factors which may have affected the copying of MSS in the early Roman Imperial period. Since there is no firm evidence that dictation played a role, and every indication that it did not, the writer's materials, the form of the book, the genre of the text, the state of the exemplar, and especially the context in which the writer worked must be considered as possible aspects of our study of the writers of Christian MSS.[156] The training, skill and commitment of an individual writer would also have affected the final product, as well as the person or persons wishing the copy to be made. It is not possible to examine some of these factors and their influence on all the MSS in my database due to their incomplete state; but all of these aspects need to be kept in mind as we now turn to Part B, the heart of this thesis, to analyse the features of the MSS in our database.

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[155] Cribiore, *Writing*, 148.

[156] Jongkind, 'Singular readings in Sinaiticus: the possible, the impossible, and the nature of copying,' in Houghton, Parker (eds), *Textual Variation*, 46-54 provides some idea of the complexities of the whole process of copying a MS in antiquity.

Thus, in Part B I will attempt to locate the level of professionalism with which the MSS were produced, as well as the religious commitment of the copyists responsible for their production. We will also have in mind whether it is possible to discern from a study of these MSS any trends, during the period demarcated for this investigation (II–IV AD), in the use of hired scribes or the involvement of Christian copyists. The thesis will follow a 'developmental progression.' In assessing diverse characteristics of early Christian MSS, it proceeds chapter by chapter to trace the consistency with which texts may be located in the zone of 'non-professional production,' but does not do so on the basis of one or two criteria alone. There is a gradual accumulation of types of evidence applied before a judgment is offered finally about which texts may have been professionally produced and which not (see Fig. S.B 3) – and the consequences flowing from this are discussed.

PART B:

FEATURES EXAMINED

IN EARLY CHRISTIAN MANUSCRIPTS

Chapter 4
GENERAL FEATURES, PHYSICAL FORM AND HANDWRITING

Now that the preliminary three chapters have clarified the goal of this thesis (Ch. 1), and have provided in survey form a broad context for writing and the production of MSS in the first four centuries of the Roman Empire, especially clarifying key terms and issues involved in this study (Chs 2-3), Part B brings us to the core analysis of the data on which the thesis is based. Since the focus of the thesis is on the evaluation of scribal professionalism in early Christian MSS, a systematic consideration of a range of issues is provided in the next four chapters. The reader is referred at appropriate points to the Plates and Tables in Vol. 2 (App. 2 and App. 3 respectively), and is reminded that the bold numbers which permeate these chapters are the code numbers for items in my database, as given in the *Catalogue of MSS* provided in Vol. 2, App. 1, including a selection of basic data about each MS.

The present chapter focuses on certain general features of the MSS, their physical form and the handwriting in which they are written. My aim in this chapter is to establish an initial list of MSS that were produced by non-professional writers, as the various features of the MSS, especially the quality of the handwriting, are examined and discussed. At the end of the chapter this list will be given (Fig. 4.18), and will form the basis of subsequent discussion of other features of the MSS in Chs 5-7 as that initial list is confirmed or modified. In the Summation which concludes Part B, and then in Ch. 8, the final list of all 516 MSS (Fig. S.B 3; see back pocket at end of Vol. 1) will be used to address the central issue examined in this thesis – the development of scribal professionalism in early Christian circles.

4.1 **Contents and order of presentation**

The actual contents of the papyri in the database are listed in the *Catalogue of MSS* (Vol. 2, App. 1). The contents of the MSS are also listed in App. 3, Table 1 in a more compact and unified form for the sake of the present discussion. It is probable that, where extensive fragments from one work are included, for example in the case of **4**

which contains parts of most of the book of Genesis in the OT, the whole book (and no more) was once included in that papyrus roll or codex, evidence of further contents being absent. However, it is also possible that the original MS included more works than that (or those) of which fragments are extant; so **33** may possibly have included more books than those currently represented (Exodus and Deuteronomy), or **43** (Exodus) may have included Leviticus as well. It is also possible, although less likely, that small fragments of codices, such as **31** (Exod 4.4-6), may not have included the whole work, of which only parts are represented. In the following subsections, a number of observations are made and issues are raised with respect to the contents of the MSS in my database, especially as they bear on the central matter of the professionalism with which they were produced.

a. *'Books' containing multiple related works*

Only two MSS – **15-1** (*Codex Sinaiticus*, Pl. 25) and **30-1** (*Codex Vaticanus*) – are 'pandects' (whole Bibles), containing approximately the books contained in most modern Bibles;[1] this small number of extant pandects is to be expected, given the enormous labour and expense involved in producing such large, high-quality volumes in antiquity.[2] Some MSS were originally rolls or codices of one whole book, such as **61-1** (Joshua) and **428** (Gospel of John), but others included two, three, four or more works, which were clearly viewed as belonging together (rather than being a 'mixed' group of works of various kinds, without apparent connection).[3] The OT MSS containing the Psalms would be a case in point, but other clear cases are those containing Genesis–Judges (**19-1**),[4] Exodus / Deuteronomy (**33**), Numbers / Deuteronomy (**52**), Judges / Ruth (**64-1**), Proverbs / Wisdom / Sirach (**254**), Ecclesiastes / Song of Songs / Lamentations / Acts of Paul (**263+605**), Ecclesiastes / Song of Songs / Sirach / Sextus Pythagoricus (**263-1+698-2**), minor Prophets / Clement of Alexandria(?) (**284+636**), minor Prophets (**285 J**), and Ezekiel / Daniel / Esther (**315**). NT MSS like this are: the four Gospels (**331**), Matthew / Luke (**336+403**), the four Gospels and Acts (**371**), Matthew / Acts (**380**), Luke / John (**406**),

[1] However, *Codex Sinaiticus* (**15-1**), for example, contains some books not present in modern Bibles – Hermas and the Epistle of Barnabas.
[2] *Codex Sinaiticus* (**15-1**), for example, originally contained more than 400 double sheets of parchment, each sheet needing a whole animal such as a sheep or antelope.
[3] Cf. Hurtado, *Earliest Christian Artifacts*, 35-40.
[4] The en-dash (–) in 'Genesis–Judges' denotes those two books and all in between in the normal canonical order. The slash mark (/) in, e.g., 'Exodus / Deuteronomy,' denotes those works alone.

Paul's letters (**497**, **521-1**, **528**), John's letters(?) (**555**), and 1 & 2 Peter and Jude, et al. (**548**+**557** et al.) in the *Bodmer Miscellaneous Codex*.

Analysis of the list given in App. 3, Table 1 indicates that there are many more MSS which appear to have originally contained a single work, rather than multiple works, as Fig. 4.1 below indicates. Some, such as **263-1+698-2**, have quite 'mixed' content from a modern perspective. Further, it is not always easy to know what constituted one 'work' in the original writer's intention; for example, **772** appears to contain fragments of parts of a euchology. It is difficult to be certain about some MSS in this respect, so that either they may have included more than one work, or perhaps the works they now contain did not belong together originally; but the number of these is small. In Fig. 4.1 we count each MS code number for the codices with multiple texts; so the tallies are inflated slightly at points and inevitably only approximate, but the general pattern is not affected. We do not count the first text on a MS which has been reused for a Christian text (on the verso), or other texts added to a MS later on; and we do not count a MS more than once (if it has only one code number), even though it was clearly a collection of brief citations (in contrast to MSS containing substantial portions of more than one whole 'work'). In Fig. 4.1 the tally given first is the number of MSS certainly from a codex or roll containing more than one work; and the number given second (after the slash) is the total number of MSS from that period and Group. Percentages (correct to whole numbers) of codices or rolls with multiple works compared to the total number of MSS are given in the bottom row to show the proportion of MSS with multiple works.

Figure 4.1 **Numbers of MSS containing more than one work**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*Total*
II BC	0/3										0/3
I BC	1/8								0/1		1/9
I AD	0/2					0/1			0/1		0/4
II AD	3/16	2/10	0/5	0/4				0/2	0/4		5/41
III AD	7/51	11/53	5/12	6/24		0/15	1/5	1/2	2/22		33/134
IV AD	9/91	4/53	6/22	9/26	2/4	6/42	0/9	1/7	2/19	0/2	39/275
Totals / Total no.	20/ 171	17/ 116	11/ 39	15/ 54	2/ 4	6/ 58	1/ 14	2/ 11	4/ 47	0/ 2	78/ 516
Percentage of total	12%	15%	28%	28%	50%	10%	7%	18%	9%	0%	15%

Therefore, apart from MSS containing small excerpts only, or those written on the other side of documents, or other texts written later on MSS, ***of the 516 MS entries***

there are only 78 which clearly contained more than one work originally. Some of these included multiple works due to the small size of the texts included, such as **285 J** (all the OT minor prophets) and **497** (letters of Paul). It follows that it was much less common for a roll or codex to contain more than one work. Even in IV AD it was still quite uncommon. It might be suggested that, if a roll or codex was planned to contain a series of works, or at least more than a few short texts, we might expect to find a more professional product since this process would necessitate more careful planning and production. However, the preponderance of codices or rolls containing only one work is more likely to have been the result of the fact that the development of the codex as the preferred form to carry the texts was still at an 'experimental' stage (at least in II AD), rather than being due to less professional manufacture. The use of multiple quires (and hence thicker codices) was increasing throughout the three centuries in view, but does not correlate with the professionalism of their production. Given that at least some codices or rolls contained multiple works, this may well have been one factor which stimulated the manufacture of a higher quality, 'professional' product; but it cannot be used as a criterion to establish which MSS were actually made to a professional standard. Thus, ***the textual content of a MS cannot in itself act as an indicator of the professionalism of its production.***

b. *MSS containing more than one work without clear connection*

Some codices and rolls contained a small number of works, apparently intentionally included *ab initio* in the one MS but at first glance unrelated in content. I do not include those papyri that are only *possibly* part of the same codex (except item xix below), since there is no certainty in these cases; but I do include the *Bodmer Miscellaneous Codex* which gathers together disparate works from other previously existing MSS. The matter of which MSS were written by more than one hand will be dealt with below (§4.3). Thus the list of MSS is as follows:

i. One papyrus codex contains Psalms 1-4 (**87-2**) and the *Apology of Phileas* (**710-1**).
ii. Another papyrus codex contains the *Apocalypse of Elijah* (**568**) and the *Protevangelium of James* (**600**).
iii. More extensive examples are the so-called 'miscellaneous' (or 'mixed' or 'composite') codices. The *Bodmer Miscellaneous Codex* on papyrus includes Psalms 33-34 (**138**), 1 & 2 Peter (**548**), Jude (**557**), the *Eleventh Ode of Solomon* (**569**), the *Protevangelium of James* (**599**), the apocryphal *Correspondence of the*

Corinthians with Paul (**611**), Melito, *On the Passover* (**678**), Melito, *Hymn for the Passover*(?) (**681**), and the *Apology of Phileas* (**710**). This Bodmer codex appears to be the consolidated remains of a small number of other codices (two to six?), and hence its contents might be explained as simply due to a desire to preserve what was left of these works; but some of the parts did belong together from the start, and thus the question of the rationale behind these smaller collections still stands.[5]

iv. **263** is part of a papyrus codex containing Ecclesiastes (Greek/Coptic), the Acts of Paul (Greek) (**605**), the Song of Songs (Coptic) and the Lamentations of Jeremiah (Coptic).

v. A papyrus codex with Song of Songs 5-6 (**269**) also has Aristides, *Apology* 15-16 (**624**).

vi. Another papyrus codex containing the Minor Prophets (Hosea–Malachi) (**284**) also contains Clement of Alexandria, *On Prophecy*(?) (**636**).

vii. The papyrus **317-1** includes Susanna and Daniel 1, as well as Thucydides (extracts), and some moral maxims in the one codex.

viii. One parchment codex contains Daniel 14 (Bel and the Dragon) (**323)**, but also a homily (**1083**); the suggestion that the latter is the underwriting of a palimpsest is to be rejected.[6]

ix. The papyrus codex **359** contains Matthew 11.25-30 (with Coptic translation) and Daniel 3.51-55 (Coptic translation missing). See Pl. 36.

x. **451** is a papyrus codex containing parts of John 10-11 (Greek/Coptic), and also parts of 1 Clement and James (both in Coptic alone).

xi. A school codex on papyrus (**511**) contains extracts from 2 Corinthians, Galatians and Ephesians, as well as a Graeco-Latin lexicon of the Pauline letters and Greek grammatical tables.

xii. A papyrus codex containing Enoch 97-107 (**578**) also includes Apocryphal Ezekiel (**579**) and Melito, *On the Passover* (**677**).

xiii. Papyrus **630-1** is possibly a codex, and contains Clement of Alexandria, *Stromata* 6 on the recto (*m.*1), along with Chrysostom, *Homily on Jer 10.31* on the recto and other texts on the verso (*m.*2).

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[5] For discussion of this codex see most recently Wasserman, *Epistle of Jude*, 30-50.

[6] Rahlfs, Fraenkel, *Verzeichnis*, 278 rightly cast doubt on van Haelst's view of this MS as a palimpsest (*Catalogue*, 337, No. 1083).

xiv. The *Bodmer Codex of Visions* on papyrus contains the *Vision of Dorotheos* (**648-1**), as well as Hermas, *Vis.* 1-3 (**654-1**) and some Christian poems (**1126-3**).

xv. A bilingual papyrus codex, the *Montserrat Miscellaneous Codex*, contains the following mixture of works in Latin or Greek: Cicero, *in Catilinam* 1.6-8, 13-30, drawing (Herakles or Perseus), euchology, *Alcestis* (Latin hexameters), story about the emperor Hadrian, list of words for tachygraphy, responsorial psalm (Latin; van Haelst No. 1210),[7] colophon in a *tabula ansata*, together with comment, acclamation and prayer (**862**), anaphora (**863**), and acrostic (responsorial) hymn (**864**). The material in these last three occurs together in the following order: 1) Anaphora (or, Eucharistic prayer) (154b-155a): first two pages of the *euchologion*; 2) Prayer of thanks (155b, lines 1-18); 3) Imposition of hands on the sick (155b, lines 19-26 - 156a, lines 1-5); 4) Exorcism of the oil for the sick (156a, lines 6-25 - 156b, lines 1-3), the remainder of the page (156b) containing *extra textum* phrases as well (lines 4-10); 5) Offering (acrostic hymn, alphabet - two pages, 157ab). So **862** (154-157 *extra textum*, incl. some of item 4), **863** (item 1), **864** (items 2-5).

xvi. A theological text (**1073**) occurs in a papyrus codex along with some receipts and a magical formula quoting Homer.

xvii. The *Great Paris Magical Codex* (**580**+**1074**) on papyrus contains a variety of texts related by their genre.

xviii. **1075** is part of the remains of a papyrus roll with a magical formula and hymns to Helios and Pantocrator.

xix. A patristic text (**1091**) is possibly a part of a papyrus codex including **1127**, **1159** and **1160** (cf. Ch. 1, §1.4a.ii).

xx. The school codices or tablets are also good examples of mixed MSS. So, a papyrus codex contains Psalm 32 (**136**), an alphabet, a biblical citation in Coptic, and a mathematical exercise. A wooden tablet codex contains Psalm 146 (**239**), Menander citations, a list of names, a fractions table and units of measurement, and iambic trimeters.

xxi. **1149-1** (a Christian homily, *m.*2) accompanies part of Xenophon, *Cyropaedia* (*m.*1) in the one papyrus roll, which deserves note for its strange layout. The Christian text is written at various angles with respect to the primary text

[7] Van Haelst No. 1210 is omitted from my database since it is in Latin, as explained in Ch. 1 (§1.4a.iv).

(Xenophon) on the two extant fragments. Further, the writer of the Christian text fitted his text into the free space left by the primary text, both in the interlinear space and the margins; and the script has a tendency toward informality.

Thus, ***of 516 MSS, 46 items contain a mixture of apparently unrelated (or at least, loosely related) items, which comprise about 9% of the total.*** Some, such as the school texts or **1149-1** (Nos xi, xx and xxi above), appear to have been quite random collections, at least from a modern point of view. Others, such as the *Montserrat Miscellaneous Codex*, were consciously planned and executed as collections and, like the *Bodmer Miscellaneous Codex* or the *Bodmer Codex of Visions*, contain Christian texts alone. On the other hand, in some cases there is a mixture of Christian and classical works, and the Christian texts clearly formed a purposeful part of the whole codex, presumably since all the texts were valued by the person responsible for the collection. These latter codices or rolls appear to reflect an appreciation of both Christian and classical works, but it is notable that all these MSS (**317-1**, **862+863+864**, **1073**, **1075**) date from at least IV AD. This should be no particular surprise in a social context of the wider acceptance of Christianity by the population in general as well as a degree of 'Christianisation' of the empire. As we noted above, it is not always possible to offer a firm answer as to why diverse works appear in the one codex, but it will be of some significance to note later how many of these exhibit signs of being professionally produced, as we examine other features in Chs 5-7. It might seem that the more 'unrelated' texts which a MS contains, the less reason there is to think that it was professionally produced. However, ***the fact that a MS contains a mixture of apparently unrelated texts cannot be used as a criterion on its own to indicate a non-professional writer, because a professional scribe may still have been commissioned to copy out texts, however 'unrelated' they may seem to us today***. Nor is there any clear inference to be drawn with regard to professionalism, even if more than one hand was responsible for the MS.

c. *MSS containing a pastiche of short quotations*

In contrast to §4.1b above, some MSS originally contained a pastiche of short quotations, and perhaps little more than the fragmentary parts of books which they include today.

i. A papyrus sheet contains only small excerpts from Gen 1.1-5 (**3**) and Heb 1.1 (**536**), as well as a private Christian letter – and probably never contained any more.

ii. A parchment fragment (**20**) includes three short extracts – from Gen 31.8 (hair side), and Psa 26:4a and Heb 12.22-23 (flesh side).

iii. A papyrus fragment (probably from a codex) (**91-1**) has quotations from Psa 31.8-11, 26.1-6, 8-14 and 2.1-8 in that order (see Pl. 29).

iv. **195** is a papyrus sheet containing quotations from Psa 90.1-2, Rom 12.1-2 and John 2.1-2.

v. A papyrus roll (or sheet) (**220**) contains quotations from Psa 111.1 and Psa 73.2.

vi. Perhaps **299** (quoting Isa 42.3, 4; 66.18, 19; 52.15; 53.1-3, 6-7, 11-12; Gen 26.13, 14; 2 Chr 1.12; Deut 29.8, 11) is some form of 'testimony collection.'

vii. A parchment codex contains Dan 14 (= Bel 20-41) (**323**) and probably included a complete homily quoting Matt 9.37-38 (or Lk 10.2) and Dan 1.4 (**1083**).

viii. **345** is a papyrus sheet with quotations from Matt 6.9-13, 2 Cor 13.13 and Psa 90.1-4.

ix. The papyrus codex **627** contains extracts from letters 5, 6, 293, 150 and 2 (in that order) of Basil of Caesarea.

x. A leaf from a papyrus codex (**682**) has part of a theological work (perhaps Melito, *On the Passover*), including citations from Hermas on the recto and Matt 22.43 on the verso.

xi. **967** contains a petition for healing from fever, incorporating quotations from Psa 90.1-2, Matt 6.9-11 and Isa 6.3, as well as a series of divine names.

xii. **1150-2**, a papyrus roll, seems to be a homily quoting Matt 8.20, Luke 9.58 and 1 Cor 2.9.

xiii. The papyrus codex **1151** is a Christian text of some kind alluding to Matt 7.17-19 and Luke 6.43-44.

xiv. **1159** is a papyrus codex containing a patristic text (perhaps Marcellus of Ancyra), which cites Eph 4.13, Col 2.9, John 14.8 and John 5.16.

xv. A theological text on a papyrus sheet (**1225**) alludes to Matt 6.33-34 and perhaps Matt 7.12.

A number of these MSS were written on single sheets, due to their apparently *ad hoc* function, and were probably written to fulfil a quite temporary need rather than having

an ongoing function. We might expect, then, that such small collections would have been written in a more casual fashion in terms of their layout and script; and they should be kept in mind when attempting to locate more 'non-professional' MSS. The school codices (**136**, **205**, **239**, **511**) would be comparable to these MSS. Therefore, ***those MSS containing a pastiche of short quotations and those which were school texts are more likely to have been written for ephemeral purposes and thus to have been produced in a non-professional manner.***

d. *MSS containing hymnic or liturgical texts*

Some MSS, such as the those of the Odes (**246-1+949-2**, **247-2**, **321**), contain hymnic or liturgical texts which were presumably used by those leading in song or prayer in a communal context. An acrostic hymn (**728**) is from a miniature codex, and another acrostic hymn (**844**) occurs on a larger leaf. It might be thought that the former, in contrast to the latter, would be unsuitable for public use, but the size of the writing is within a normal range and the lector could well have used it, despite its untidy writing style. Other MSS in my database containing hymns are **681**, **864**, **891-1**, **892-6**, **914**, **962** and **1036-1**.

Some MSS contain remnants of liturgical texts (**722** Pl. 19, **772**, **774-5**, **847**, **862+863+864**, **879**, **891**, **892-7**, **892-8**, **918**, **921**, **948-3**?, **949-2+246-1**, **966**, **966-1**, **983**, **998**, **1036**, **1037-4**, **1037-5**, **1064**, **1066-2**, **1066-3**, **1066-6**, **1067**), although many of these seem to have been single sheets rather than parts of more extensive codices or rolls (**722** Pl. 19, **772**, **774-5**, **847**, **891**?, **892-7**, **892-8**, **918-1**, **948-3**, **949-2+246-1**, **966**, **966-1**, **983**, **998** sheet or codex, **1036** sheet or codex, **1037-5**, **1066-3**, **1066-6**, **1067**). Perhaps the distinction between liturgy and prayer, or indeed between liturgy and hymns, might not have been as fixed as we might imagine from a modern perspective, due to the way in which liturgies were sometimes chanted, although it is unclear when this practice began. If the text on a MS was laid out so that it could be read or sung in a meeting, we might imagine that it would have been produced with some care, partly due to its content being significant for the group, and partly due to the need for it to be legible, at least until its contents were learned. However, as we noted above with respect to hymnic texts, as long as the lector could read the text, this would be all that was necessary for the text to be used in this way. Therefore, ***MSS containing hymnic or liturgical texts seem to have been often (although not always)***

written on single sheets, presumably for use in a group setting. However, since the only qualification for their use was that the lector was able to read them (until learned by heart), in this case, genre and purpose do not form a necessary indicator of the professionalism or otherwise of their reproduction.

e. *MSS repaired by replacement of lost material*

Some MSS have been repaired by the addition of lost sections; but these repairs mostly fall outside the time parameters for this study since they were made much later. So, a new quire containing John 1.1-5.11 was added to a Gospels MS (**331**) in VII AD, presumably because the original quire was lost. Other MSS have had new material composed in place of the missing material, as is the case of Mark's Gospel after 16.8,[8] but due to the dates of the MSS which include the material (apparently composed to fill the loss) being later than IV AD, this issue will not occupy our attention. ***While certain MSS were repaired by the replacement of lost material, such additions are only attested for the period later than the timeframe for this study, and hence will not form a part of the data analysis in this thesis.***

f. *Amulets and MSS containing texts used as oracles*

Some MSS contain material, sometimes quotations from the OT or NT, which was used as an oracle for telling fortunes. So, **441** contains the text of John 3.34 with some *hermeneia* attached; and **1076** has a quotation of Isa 66.1 in relation to some magical purposes, although not clearly oracular. Akin to this is the use of MSS as amulets, whose aim was either to bring a blessing or to secure protection of some kind, such as from illness (**721**, **733-2**, **849**, **902**, **911 J**, **918-3**, **918-4**, **948**, **949**, **951**, **952**, **953**, **967**, **968**, **1050**, **1066-5**, **1079-2** Pl. 11). Some 'amulets' are actually prayers for something beneficial such as patience (**955**) or the love of another person (**912-1**), which is similar in function to prayers for healing and the like. Other amulets include prayers of a more formal kind (**892-2**, **893**, **996-1 J**), and still others contain an appeal for harm to come to another person (e.g. **739**, **971**). It is to be expected that such MSS, especially those from Group F (Liturgical and private prayers), would not be produced with the same degree of professionalism or care as texts containing more 'literary'

[8] MSS such as *Codex Sinaiticus* (**15-1**) and *Codex Vaticanus* (**30**-1) do not have any Markan material after Mark 16.8. Some MSS contain other endings, but these are extant only from V AD, beginning with *Codex Alexandrinus* and *Codex Bezae*.

texts, such as OT, NT, patristic, hagiographic or other theological works, since they were written for more private and personal uses and were certainly not designed to be read out in a public gathering. This should not be taken to imply that all easily legible texts must have been written for public reading, but only that those which were copied for this purpose must have been legible enough for them to be read out in public by the lector. Texts not designed to be read in a public context may not have been written with the same degree of legibility. For the matter of the public reading of texts recall Ch. 3 (§3.3h), and see further in Ch. 6. Our study of other features of these oracular MSS and amulets will need to keep in mind their function and the possibility that a less professional writer was responsible for their being copied. Therefore, ***MSS that were clearly written for personal purposes, such as oracular texts or amulets, may show a lower degree of professionalism in their production, due to the limited and private nature of the texts included***. This would not apply to texts originally written professionally, perhaps as part of a codex, but later reused as amulets, such as *MPER* 17.10 (John 1.5-6; VI–VII AD).[9]

g. *MSS containing formal magical texts*

A number of MSS in my database are 'magical' in a more formal sense, since they contain magical texts or a collection of these. The *Great Paris Magical Codex* (**580+1074**) is a case in point, as is (probably) **1077**. Some of these codices seem to contain a mixture of religious traditions, including Christian and Jewish, but also material from other traditions including Graeco-Roman and Egyptian. The works that include material about Jannes and Jambres (**584-1**, **584-2**, **584-3**, **1069**) treat them as magicians, and thus could be seen as allied to this group of MSS containing magical texts. Further, we should note here **1073**, **1075**, **1076**, **1077**, **1078**, **1079**, **1079-2** (perhaps an amulet; see Pl. 11), **1080**, **1080-1**, and **1081**, since they include magical texts as well as magical formulae. What impact the nature of the texts included in this category, especially Group H (Magical texts), has had on the professionalism of their production will be explored at various points in the remainder of Chs 4-7. At this stage, ***a correlation suggests itself with regard to the professionalism with which formal magical texts were reproduced, in that the longer texts might be expected to***

[9] See G.H.R. Horsley, 'Reconstructing a biblical codex: the prehistory of MPER n.s. XVII 10 (*PVindob* G 29831),' *PapCongr.* XXI (1997) 473-81.

have been copied by professional scribes; but this will need to be confirmed by other features examined in the remainder of Chs 4-7.

h. *MSS of uncertain nature and function*

Several MSS contain citations of Christian works (such as biblical texts), and thus are probably Christian works themselves, but are of uncertain nature and function, often due to the small amount of text remaining (e.g. **504-1**). Other MSS are probably homilies or the like, which contain one or more quotations of biblical and other texts related to the message of the homily (**682**, **1083**, **1091**, **1092**, **1126-6**, **1127**, **1130**, **1146-3**, **1150-2**, **1150-3**, **1151**, **1152**, **1157**, **1159**, **1190-1**). Other MSS alluding to biblical and other texts or containing texts whose precise nature is unclear are **1093**, **1093-1 J**, **1094 J**, **1108**, **1121** Pl. 16, **1122**, **1125**, **1126-3**, **1131**, **1133**, **1135-1**, **1136**, **1137**, **1139**, **1141-1**, **1142-5**, **1145** Pl. 18, **1146-2**, **1147**, **1148**, **1149-1**, **1149-2**, **1150-4**, **1154** Pl. 21, **1156**, **1158**, **1160**, **1169**, **1175**, **1176-1**, **1177**, **1178**, **1188-1**. Due to their probable varied nature and function – and we do not know what they were – these MSS, largely in Group I (Unidentified texts), may be expected to exhibit a range of levels in the professionalism with which they have been reproduced. This will presumably be evident in most of the features examined in Chs 4-7, and thus ***Group I may be expected to show much more variety in the professionalism of their production than other Groups for the features studied.***

i. *MSS containing unknown texts*

Somewhat similarly to the previous set of MSS, in certain cases the nature of the text in the MS is simply unknown, and can be described only approximately. Thus, **585** is an 'unknown Gospel of Synoptic type,' and **586** is an 'unknown Gospel of Johannine type.' Sometimes there is uncertainty about the identity of the author of a work, or the genre of the work itself. Thus, **648** could be a Christological treatise by Didymus the Blind, but neither author nor subject is certain. Given the fact that the nature of these texts is largely unknown, even if we can describe them approximately, they will probably also fall into the same category as those MSS reviewed in the preceding section, and thus exhibit a variety of levels of professionalism in their reproduction, as we will have occasion to see in Chs 4-7 in the different features examined. Therefore, this reinforces the conclusion drawn above that ***it should be presumed that the MSS***

containing texts whose contents are uncertain or unknown (mostly in Group I) will exhibit a range of professionalism in their production or reproduction.

j. *MSS containing drawings or illustrations*

One MS (**631-2**), a world chronicle, includes coloured illustrations. Some MSS contain quite ornate objects such as the *coronis*, etc. in *Codex Sinaiticus* (**15-1**, Pl. 25), *Codex Vaticanus* (**30-1**) and **272**, **557**, **593**, **688**, **1093-1 J**; and a *corrector* of **52** added a *coronis*. However, apart from the *coronis* in its original forms, some of these MSS have been kept in libraries, and various kinds of embellishments have been added over the centuries, such as the coloured inks in *Codex Vaticanus*. These later additions will not feature in this study, but ***the original addition of decorations such as a coronis and the like will be noted in Ch. 7 (§7.4), especially as a sign that a professional scribe was responsible for their production.***

k. *Patterns of usage?*

Can surviving numbers of MSS be taken to reflect popularity, so that the more MSS of a work that are extant, the more that must have existed in antiquity and therefore the more popular that work must have been? If the number of MSS is high enough, this might be a valid conclusion; but since the number of MSS is mostly not large, any such conclusions should be drawn with caution. Clearly, some authors and works were popular, as far as the evidence indicates. In the OT the Psalms were particularly popular, as Psalm MSS alone comprise about 53 of the 171 OT MSS, not counting some MSS which include short citations of a Psalm. This is not surprising, since the Psalms are quoted or alluded to in the NT more than any other OT book (with the possible exception of Isaiah), and were clearly important for many early Christians. Singing (and specifically singing Psalms) is mentioned in the NT, for example, as one of the regular activities in which Christians engaged during their meetings.[10]

The Gospel of Matthew is represented by more papyri (28 entries in my database) than any other NT book; and the Gospel of John has 21 entries, if we include Gospel (and Acts) codices containing more than one book. Origen was a popular patristic author, with 11 entries (although only 4 are certain). The *Shepherd* of Hermas appears

[10] The range of lexical items in the NT referring to 'singing' or 'singing psalms' is considerable: ᾄδω, δοξάζω, ἐξομολογέω, ὁμολογέω, ὑμνέω, ὕμνος, ψάλλω, ψαλμός, ᾠδή.

to have been one of the most popular books (included in **15-1**; and 18 specific entries: **654-1**, **654-2**, **655-1**, **657**, **658-1**, **659**, **659-1**, **660**, **661**, **662**, **663**, **664**, **664-1**, **665**, **666-1**, **667**, **667-1**, **668**); yet it was not finally included in any official canon list. On the other hand, even though we have three MSS of the Gospel of Thomas (**593**, **594**, **595**), this cannot really be taken as indicative of low usage, given the small number of MSS in this genre of 'apocryphal Gospels.'

Apart from these obvious cases, we cannot draw firm conclusions about the popularity of most works in early Christian circles. Even were it possible to do so, there would need to be a cross-match with the provenance of the MSS, if we wished to show that the work was popular over time on a wide front and not just in one location. For example, of the 53 MSS listed as containing Psalm(s) first, 26 come from Egypt (more specific location unknown), 2 from Upper Egypt, 1 from Antinoopolis, 9 from the Fayum (sometimes specified, + 3 uncertain), 1 from Hermonthis, 1 possibly from Heracleopolis, 1 from Hermopolis (+ 1 uncertain), 1 from Memphis (+ 1 uncertain), 2 possibly from Pabau or Panopolis, 1 from St. Catherine's monastery in the Sinai, and 6 from Oxyrhynchus. Thus, it would appear that Psalms MSS were in use in a wide variety of places. However, about half of these MSS (26/53 = 49%) are of unknown provenance within Egypt, and thus cannot be used to identify local patterns of usage. This is especially so in light of the fact that we often do not know if the find-spot (provenance in that sense) was the place where the MS was actually copied.

However, if the numbers of extant MSS of a text are relatively numerous, certain general patterns of usage may be observed, particularly in view of the fact that travel was not uncommon among certain groups of people, Christians no less than others. Some Christians travelled and carried books with them, at least in the case of Paul and his acquaintances (cf. 2 Tim 4.13). It might be thought that those texts that *seem* to have been most popular, taking the number of extant MSS as evidence, would have been copied with a higher degree of professionalism, since their popularity presumably implies that special care would be taken with their reproduction. However, this does not follow, since ***popularity only implies that more copies were produced, without indicating anything about the standard of those copies.*** Hence this matter will not be pursued in this study.

l. *Gnostic and Manichaean works*

Some MSS, such as those containing various Gnostic and Manichaean works, derive from religious groups which were (then or later) ruled to be outside the boundaries of both official Western and Eastern Christian churches. Gnostic material is included in **722** Pl. 19, **895, 953**, **1064**?, **1065**, **1066-4**, **1067**, **1067-1**?, **1069** and **1070**; and Manichaean material or texts occur in **604**, **604-1**, **918-4**?, **1066-1**?, **1066-2**, **1066-3** and **1066-6**. These take various forms, including theological works like the *Acts of John* (**604**, **604-1**) and a Gospel (**1064**); but there are also amulets, hymns and prayers. How the difference in their background and status affected the professionalism with which these works were copied will be examined in the course of Chs 4-7, as they mostly appear in Group G (Gnostic and Manichaean texts). At this stage, ***there is no reason to suggest that there is a correlation between their Gnostic or Manichaean contents and the professionalism of their reproduction.***

m. *School texts*

As noted above (§4.1c), a small number of MSS (**136**, **205**, **239**, **511**) are specifically designated 'school texts.' Perhaps the use of Christian texts in school reflected the desire on the part of some authorities to have such texts, including Latin ones, used for schooling in place of the classical texts used previously.[11] Julian, at least, attempted to thus limit the Christians' educational texts. The level of professionalism involved in copying such texts is quite low, as their identification as school texts implies, although **136** has Greek and Coptic elements and **511** contains both Greek and Latin parts (see §4.2 below). The use of Latin in **511** may indicate a higher level of education on the part of the copyist, but **136** is clearly a very non-professional product in light of the handwriting (see §4.4 below). Unsurprisingly, then, ***school texts will normally show a non-professional standard of reproduction.***

n. *A MS containing musical notation*

One MS (**962**) has musical notation, obviously containing material that was to be sung. However, such texts are clearly rare until the end of IV AD, and the professionalism with which this one was produced will need to be investigated in

[11] On the pervasive use of Homer in education in Greek see G.H.R. Horsley, 'Homer in Pisidia. Aspects of the history of Greek education in a remote Roman province,' *Antichthon* 34 (2000) 54-58.

relation to handwriting and other features examined later in Chs 4-7. ***Musical texts may well have been written by scribes with a greater degree of professional training.***

In this section (§4.1) we have reviewed the nature of the texts on MSS in my database, along with their presentation and the purpose for which they were copied. I conclude that some of these factors may quite naturally be expected to impinge on the professionalism of the production of the various MSS in my database. If MSS were composed largely for personal use, then the level of professionalism required might not be as high as, for example, texts composed to be read out in public or to be referred to for other reasons. However, the reverse does not follow, that a high degree of professionalism implies that a MS was copied to be read publicly. If a MS was originally written for one reason, but was then included in a 'miscellaneous' codex at a later time, then it is the original purpose which is relevant to this study; but to ascertain that original purpose may well be out of our reach due to the nature of what survives. If the MS was written for personal reasons, such as to serve as an amulet, then again the level of professionalism expected might not be high. If copied for liturgical use or for singing, we might expect the level of professionalism to be higher, unless again the copies preserved were of a more personal nature. It would be difficult to suggest what we might expect in terms of professionalism for MSS containing literary or sub-literary works of other kinds; but in the remainder of Chs 4-7 we will examine a number of features of the MSS to see whether the nature and purpose of the texts has impinged on the professionalism of their production. It is possible that a MS that was produced professionally might have been used for a certain purpose merely because of the high value placed upon it; but this will remain only a possibility, since such precise information is not open to modern investigation for any of the Greek MSS from the period of this study.

Thus, from the above discussion ***it would seem likely that the MSS which are more likely to have been produced with less professionalism are the following*** – those with a pastiche of short quotations (**3+536**, **20**, **91-1** Pl. 29, **195**, **220**, **299**, **323+1083**, **345**, **627**, **682**, **967**, **1150-2**, **1151**, **1159**, **1225**), school texts (**136**, **205**, **239**, **511**), those with texts used as oracles (**441**, **1076**), and amulets etc. from Group F (**721** – **1050**) which were not written as 'literary' works nor to be read out in public. We may add **1066-5** and **1079-2** as probable amulets.

Further, MSS from Group I (**1083 – 1190-1**) are likely to show ***a variety of levels of professionalism*** due to their unknown and (presumably) mixed textual content. ***Higher levels of professionalism*** are to be expected in MSS with decorations (**15-1** Pl. 25, **30-1**, **272**, **557**, **593**, **631-2**, **688**, **1093-1 J**; cf. below in Ch. 7, §7.7), aside from the crude drawings in **136** and certain magical texts. We would also expect that a MS with musical notation (**962**) was produced by a professional scribe due to the knowledge implicitly required to set it out on the page. The fact that a MS includes a Gnostic or Manichaean work does not seem – initially, at least – to have any bearing on the professionalism with which it was produced.

4.2 **Languages used**

Some MSS are described as 'bilingual,' but this can mean various things. They include a range of MSS as follows:

i. Works in Greek with Coptic glosses (**284**, **286**, **293**, **548**, **636**, **693**, **921**) or translations (**351**, **359**, **451**, **1036-1**);

ii. Some papyri have small additional texts in Coptic (**1035**) or small additions in Greek to a Coptic text (**1037-4**).

iii. One codex (**523**) has a Greek text and its Latin translation, and another (**580**+**1074**) has Greek and Coptic sections. One codex includes a Greek OT text (**263**) along with its Coptic translation, as well as a text in Greek alone (**605**) and two in Coptic alone. A school text (**136**) noted above (§4.1b.xx, §4.1m) contains material in Greek and Coptic and a range of other types of material, as does another school text (**239**), presumably reflecting the variety of exercises in school and perhaps the policy of using Christian texts (along with others) for the education of students. **195** has some Coptic words, seemingly as an invocation. Another school MS (**511**) contains a Greek-Latin lexicon, word lists and a Greek 'Grammatical tables.' The codex containing **862**+**863**+**864** is a mixture of many different kinds of texts, both Christian and classical, some in Greek and some in Latin. One possibly Manichaean text has both Greek and Syriac parts (**1066-1**), and another (**1079**) has Greek and Demotic sections. Two *onomastica* have Hebrew names transcribed with etymological meanings (**1136**, **1158**). Four Jewish MSS (**56 J**, **167 J, 275-1 J, 285 J**) contain the Tetragrammaton in Hebrew script (cf. Ch. 7, §7.9).

The Greek MSS with Coptic glosses *might* show a lower level of professionalism or a writer more at home with Coptic,[12] although there is no certainty here. However, making due allowance for this uncertainty, I conclude that ***in general it would seem likely that codices with extensive sections of Greek text and some text in another language*** (**263**, **351**, **359**, **451**, **511**, **523**, **580+1074**, **605**, **862+863+864**, **1036-1**) ***would need higher linguistic expertise, and hence may show a higher standard of professionalism***. This will need to be tested in our examination of other aspects of the MSS in the remainder of Chs 4-7, since a higher level of education (including competence in two languages) may not automatically translate to a higher professionalism in scribal work.

4.3 **Number of writers**[13]

The vast majority of MSS on my database were written by one hand, and I have assumed that this is so unless there is some indication to the contrary. See App. 3, Table 2, for a list of those MSS with more than one hand evident. That tabulation does not include those MSS which have a text on the reverse side of a previously existing document or other text, for texts written on the verso of documents when papyrus was reused are not comparable to texts being copied by more than one hand. Accordingly, that situation is not relevant to the copying of the texts included in my database, except for the suggestion that reusing writing materials might imply less resources on the part of the writer and hence that less professionalism might be involved in the copying (see §4.8 below on reused writing materials). There is no account taken here of the subsequent erasure of Christian texts and placement of other texts over them (as palimpsests), since this also is not relevant to the present study.

As a caution to any conclusions drawn here, it was noted earlier (Ch. 1, §1.4c) that many of the MSS studied here are fragmentary. Hence, we must allow that other hands may have been involved in producing portions now lost. Further, correctors or later hands, whether more or less contemporary or much later, sometimes added extra material (such as corrections or decorations of various kinds); and thus their writing has played a minor (but decisively secondary) role in the formation of the final form

[12] Cf. Cribiore, *Writing, Teachers and Students*, 9, 148.
[13] The reader is reminded that (like 'copyist') the word 'writer' is used here, instead of 'scribe,' as a neutral word which avoids the assumption that a professional scribe is in mind.

of the MS. Only contemporary or near-contemporary correctors will be noted in this study.

Of the 171 entries for Group A (OT MSS), 148 show no signs of more than one original writer or contemporary (or near-contemporary) corrector. Of the 23 others, 7 (**55**, **112-2**, **133**, **174, 239-2**, **275**, **286**) are on the verso of a document written earlier in another hand or hands, and 1 (**181**) has a later document written on the verso, but these are not relevant here (although see **174** below). Of the remaining 16 (including **174**), 6 MSS are clearly by two hands (**19-1**, **56 J**, **118**, **285 J**, **315**, **317-1**), and 1 has been written by two (or perhaps three) hands (**30-1**).[14] There are 3 MSS which were clearly written by three hands (**15-1**, **136**, **239**), and 2 might have been written by two hands but it is difficult to be certain that there is more than one (**87-2**, **174**). There are 2 MSS with other texts (included in the database) on the reverse side in a different hand, so that **246-1** is on the verso of **949-2** (Group F) in another hand, and **44** is on the recto of **559** (Group B) also in a different hand. In 2 MSS the text is written by one hand; but each is part of a codex in which other hands have written other texts. So, **263** has **605** (Group C) in a different hand, and **138** is a part of the *Bodmer Miscellaneous Codex* which shows signs of being written by at least four (and up to six) writers.[15] This latter codex is problematic, since assigning texts to different hands is difficult, and also the codex seems to be a collection of the remnants of other codices. In **136** (a school exercise) *m*.2 has written one section in Coptic. **15-1** shows corrections by a number of hands, as do **19-1** and **30-1**.

Thus, for the group of 171 OT MSS, by far the majority (148) were written by one hand (as far as we know). Of the 23 remaining, 7 are on the verso of a document (in another hand), and 2 on the other side of a Christian text in a different hand; 2 might have been written by more than one hand, and 2 are a part of codices with other texts. Only 6 MSS definitely show two hands at work, 1 shows two or three hands, and 3 clearly show three hands. It appears that ***it was the normal practice for one writer to inscribe a whole OT text, but when a codex comprised a number of different works, and especially when it was quite extensive*** (e.g. **15-1** Pl. 25, **30-1**, **118**, **315**, **317-1**), ***a***

[14] This latter MS also has extensive contemporary and later additions, corrections and decorations.
[15] Aside from **138**, this codex includes texts from Group B (**548**, **557**), Group C (**569**, **599**, **611**), Group D (**678**, **681**) and Group E (**710**).

number of writers performed the task, each one working on one or more whole texts.[16]

Of the 116 entries in Group B (NT MSS),[17] 112 show no signs of more than one writer. Of the other 4, **559-1** is on the verso of a document, which is not relevant here. There are 2 MSS (**548**, **557**) that are part of the *Bodmer Miscellaneous Codex* mentioned just above, although both are in the same hand. **559** is on the verso of **44** (Group A). Again, the evidence shows that it was normal for one writer to copy a MS, even those containing more than one 'work' (such as a copy of the four Gospels and Acts). Hence, although some MSS have been corrected or added to after having been copied, ***it was almost universal that codices with NT texts were copied by one writer***. The length of the NT documents would have made this more practicable than some OT MSS, as they are frequently shorter than many OT works.

Of the 39 MSS in Group C ('Apocryphal' texts), 32 show no signs of more than one hand. There are 3 MSS (**581**, **587-1**, **593**) with documents on the other side, which is again not relevant here. 3 MSS (**569**, **599**, **611**) are part of the *Bodmer Miscellaneous Codex*.[18] **605** is part of a codex in which the other Greek text was copied by a different hand. Again, it seems clear that ***for 'apocryphal' texts it was the normal practice for one writer to copy a whole work***, even if later hands inserted corrections or additions.

Of the 54 MSS in Group D (Patristic texts), 44 show no signs of more than one hand. Of the remaining 10, 3 (**657**, **674**, **693**) are on the other side of a document. The verso of **630-1** is written in a later hand, as is one of the texts on the recto. In the *Bodmer Miscellaneous Codex* 2 MSS (**678**, **681**) are each in a different hand, and the *Bodmer Codex of Visions* contains **648-1** in 1 hand and **654-1** in 2 hands. **667** is clearly written by two hands, and **696** was written by three hands (with corrections by another hand

[16] It would be interesting and important to investigate those parts of MSS where one writer finished and another one took over, in order to see whether they started on a new page, or left a page, or planned to carry on immediately below the first writer's portion. This would indicate something about the way in which a codex was planned and the work carried out, when it was clear that more than one writer was required. However, it has not been possible to pursue this level of detail in the present study.
[17] Note that **15-1** and **30-1** include the NT as well as the OT, but their inclusion in Group A should not affect our conclusions because of their small number.
[18] One of these (**599**) has also been corrected by another hand.

again). Thus, ***whole Patristic works were* normally *written by one writer, although different writers were sometimes used in codices with multiple works***.

Of the 4 MSS in Group E (Hagiographic texts), all were written by one hand, but 2 (**710**, **710-1**) are part of larger codices containing multiple works. **710** is in the *Bodmer Miscellaneous Codex* (four-six hands in the whole codex), and **710-1** belongs with **87-2** which were both written by the one hand or possibly by two quite similar hands that are difficult to distinguish.

Of the 58 MSS in Group F (Liturgical and private prayers), 3 (**891**, **962**, **1037-5**) are on the verso of documents. **948-3** might have the verso in a different hand (but both sides are quite irregular, so it is hard to be certain). **949-2** has another text (**246-1**) in a different hand on the verso, and **892-6** has been written by two hands (one on the recto, one on the verso). ***Thus, most MSS in Group F show only one hand having been at work.***

Of the 14 MSS in Group G (Gnostic and Manichaean texts), no more than one hand is evident in each.

Of the 11 entries for Group H (Magical texts), **1079** is on the verso of a previous text in a different hand, and 2 MSS (**1073**, **1077**) were written by at least two hands. **1081** was probably written by four hands (although due to the lack of uniformity of the script on both sides, it is possible that one writer may have been responsible but that he wrote in four sessions).[19]

Of the 47 entries for Group I (Unidentified texts), 36 show no signs of being copied by more than one hand, 5 (**1137**, **1145** Pl. 18, **1150-2**, **1158**, **1178**) are on the other side of documents, and **1149-1** is on the other side of a classical work. Only 2 (**1150-4**, **1157**) show two hands at work, **1130** shows three hands, and **1126-3** shows

[19] So A.S. Hunt, 'The Warren Magical Papyrus,' in S. Glanville (ed.), *Studies presented to F. Ll. Griffith* (London: OUP, 1932) 233-34.

four hands (out of six in the whole codex). **1142-5** may show two hands, but this is disputed.[20]

The 2 MSS in Group J were each written by one hand.

My findings lead me to conclude that complete 'books' or 'works' were normally written by one writer, and sometimes the same copyist might copy more than one work in a codex. However, especially if the work was extensive (and there may well have been other reasons unknown to us), more than one writer might sometimes copy a text. A significant number of MSS show corrections, additions, or decoration by later hands; this is not our concern here, except to note that it is rare to find more than one corrector in one MS (except for those longer MSS preserved almost complete, such as the pandects of the whole Bible). Therefore, it follows that ***the work of copying Christian MSS was not done piecemeal, but in the vast majority of cases each work (or 'book') was copied by a single writer. This indicates that in general a more formal process was used, rather than different people taking on allocated portions of those works***. Those MSS which are the work of more than one hand, will need to be kept in mind when investigating the MSS in the further aspects of this study, since they may have been copied more as literary works and hence with greater professionalism.

For ease of reference, Fig. 4.2 below lists the MSS in their groups, which can be attributed to more than one hand for the main work or works included, ignoring here those MSS written on the verso (or recto) of a documentary text but including those MSS from planned codices with multiple works and hands. No MSS produced by more than one scribe occur in Groups G and J, so these are omitted. A question mark indicates some uncertainty.

[20] R. Pintaudi, 'Un frammento senza speranza?', in S. Janeras (ed.), *Miscellània papirològica Ramon Roca-Puig en el seu vuitantè aniversari* (Barcelona: Fundació Salvador Vives Casajuana, 1987) 283 maintains that the verso is in a different hand, but Treu, 'Christliche Papyri XIV,' 111 reports that he could not see a clear difference from the photograph.

Figure 4.2 **MSS (or MSS within codices) with works written by more than one hand**

Group A	**15-1**, **19-1**, **30-1**, **44**, **56 J**, **87-2**?, **118**, **136**, **138**, **174**?, **239**, **246-1**, **263**, **285 J**, **315**, **317-1**
Group B	**548**, **557**, **559**
Group C	**569**, **599**, **605**, **611**
Group D	**648-1**, **654-1**, **667**, **678**, **681**, **696**
Group E	**710**, **710-1**?
Group F	**892-6**, **948-3**?, **949-2**
Group H	**1073**, **1077**, **1081**?
Group I	**1126-3**, **1130**, **1142-5**?, **1150-4**, **1157**

4.4 **Handwriting quality**

In this section we analyse the handwriting quality of the MSS in my database, where the handwriting of each MS has been assigned a number intended to indicate the quality of the handwriting, that is, the degree of professionalism with which it has been executed. The assignment of MSS to Categories is based on observation of the factors discussed in Ch. 2 (§2.3, esp. §§2.3e-f), particularly with respect to irregularity or unevenness in lettering or the line of writing, which indicate that a non-professional writer has been at work, taking into account the period in which the MS was copied. It was noted there that the criteria were developed largely on the basis of those formulated by Johnson, and likewise the Categories were developed from a comparison of his. Some of the matters listed there will be examined further below (see §§4.5-4.8) and in Chs 5-7; but it is the general character of the handwriting that has been used for the present. The assignment of MSS into handwriting Categories, which unavoidably contains a degree of subjectivity, is based on my autopsy of the originals where this has been possible, inspection of photographic plates or images, and the descriptions of editors. For a few MSS (**174**, **721**, **772**, **1083**, **1224**, **1225**) a final decision has not been possible due to lack of visual or photographic evidence; occasionally, the handwriting of some MSS was never described and the MS is now lost. The number indicating the 'level of professionalism' is on a scale from 1 to 3 with the following meanings:

Category 1. professional and calligraphic hand

Category 2. professional but not calligraphic hand

Category 3. not a professional hand

There is obviously a considerable range of professionalism evident in MSS in all of the above Categories, but especially in Category 2 due to the large proportion of MSS placed in that category. The addition of a plus ($^{+}$) or minus ($^{-}$) sign is intended to

indicate that within the one category there is a greater ($^{+}$) or lesser ($^{-}$) degree of professionalism evident in the MS. No attempt has been made to distinguish between 3 and 3^{-} or between 1 and 1^{+}, since that is not the focus of our research. So the resulting classification includes Categories 3 / 3^{+}, Categories 2^{-} / 2 / 2^{+} and Categories 1^{-} / 1. Thus, the focus of this study is on distinguishing between MSS produced by a non-professional writer (Categories 3 / 3^{+}) and those produced by a professional scribe (Categories 2^{-} / 2 / 2^{+} and Categories 1^{-} / 1). If these groupings were placed on a line, then the plus or minus descriptions would be close to the border between Categories, since the boundaries between the Categories are not easily distinguished, and could be represented as follows. The non-professional (Category 3) is on the left and the most professional (Category 1) is on the right.

3 3^{+} / 2^{-} 2 2^{+} / 1^{-} 1

While the difference between 3^{+} and 2^{-} or between 2^{+} and 1^{-} is somewhat artificial and hence the difference hard to define, it is worthwhile attempting to distinguish them, even if only to see what proportion of MSS are on the border (and probably in Category 3^{+} rather than Category 2^{-}, or in Category 2^{+} rather than Category 1^{-}). We will examine the MSS in their content Groups, which will thus be a comparison of MSS with a similar kind of content or function (in most cases). Within each Group MSS from similar time periods are discussed and compared. For the larger Groups, a Figure seemed to be the best way of presenting the results, with comments drawn from that Figure. The assignment of a MS to a handwriting quality Category is based on an impression of the hand, including the criteria noted in Ch. 2 (§2.3e-f). Each MS is assigned to a Category, as listed in the *Catalogue of MSS* (Vol. 2, App. 1), although a few MSS listed there in one Category were originally (in this section) listed in a slightly different one but were reassigned after an inspection of their characteristics. Plate Numbers (in App. 2, Vol. 2) are given where relevant.

The results for Group A appear in Fig. 4.3 below. It should be remembered that all items listed as copied with start-dates from II BC to I AD are Jewish, and the appended '**J**' is thus not added here for those MSS for the sake of space.

Figure 4.3 **MSS in Categories of handwriting quality (Group A – OT texts)**

Cat.	*3*	*3*$^{+}$	*2*$^{-}$	*2*	*2*$^{+}$	*1*$^{-}$	*1*
II BC				**55-2**		**38**	**57**
I BC					**49**	**55-1**, **285**	**5-1**, **46**, **51**, **56**, **312**
I AD			**275-1**	**77-2**			
II AD			**118** (*m.*1)	**12**, **33**, **61-1**, **76**, **224**, **315** (*m.*1)	**118** (*m.*2), **304**, **315** (*m.*2)	**13**, **47-1**, **112-1**, **179**	**52**, **88-1**, **151**
III			**4**, **7**, **30**, **44** (Pl. 20), **62**, **77-1**, **81-1**, **263**, **269**, **273-2**, **286**	**36-3**, **40**, **43**, **48-1**, **92**, **99**, **125**, **167 J**, **238**, **254**, **275**, **284**, **293**, **295**	**5**, **15**, **30-2**, **75**, **101**, **109**, **121**, **227-1**, **238-1**, **252**, **264+265**, **303**, **314**, **318**	**82**, **165**, **182-1**, **298**, **300**	**14**, **36-1** (Pl. 13), **42**, **85-1**, **281**, **317-1**
IV	**87-2**, **136**, **205**, **220**, **239**, **255**	**132-1**, **134-1** (Pl. 33), **246-1**, **308** (Pl. 34)	**3**, **90**, **133**, **138**, **143**, **170-1**, **195**, **239-2**, **263-1**	**21**, **48-2**, **84**, **91-1** (Pl. 29), **168**, **181**, **234-1**, **270**, **299**	**41**, **117**, **142**, **145** (Pl. 28), **180**, **222-2**, **319**, **321**	**8**, **48**, **55**, **66**, **148**, **268**, **272**, **282**, **305**, **311-1**, **323**	**10**, **11**, **15-1** (Pl. 25), **19-1**, **20**, **21-2**, **24**, **25**, **27**, **28**, **30-1**, **31**, **31-1**, **32**, **34-1**, **39**, **50**, **61**, **64-1**, **65**, **67**, **68**, **112-2**, **120**, **131**, **148-1**, **152-1**, **175-1**, **211-2**, **214**, **223-1**, **247-2**, **276**, **276-1**, **278-1**, **280-1**, **280-2**, **289**, **291**, **297**, **301**, **307-1**, **309**, **316**

There are a number of observations to be made on the basis of the assignment of the MSS in Group A to the Categories in Fig. 4.3 (above). *First*, of the Jewish MSS from II BC to I AD only **275-1 J** (I AD) falls into Category 2^{-}, which still seems to be professionally produced. One MS (**77-2 J**) from I/II AD has been placed in Category 2, and the rest in Category 2^{+} (I BC **49 J**), Category 1^{-} (II BC **38 J**; I BC **55-1 J**, **285 J**) and Category 1 (II BC **57 J**; I BC **5-1 J**, **46 J**, **51 J**, **56 J**, **312 J**). None appears to be produced by a non-professional writer. Thus, the evidence shows that Jewish MSS in this group were copied by professional writers; and this is consonant with the view that the OT MSS in Group A were seen by those Jewish persons responsible for having them copied as a part of their sacred writings and thus deserving of professional reproduction.

Second, amongst the MSS with start-dates in II AD, all may be assigned to Categories 2^{-} / 2 / 2^{+} or 1^{-} / 1. It was not possible to assign **174** to a Category. Counting the two MSS with different hands separately, there are seventeen. **118** (*m.*1) is in Category 2^{-}, six in Category 2, three in Category 2^{+}, and seven are placed in Category 1^{-} or 1. Of

the MSS with start-dates in III AD, only eleven (**4**, **7**, **30**, **44** Pl. 20, **62**, **77-1**, **81-1**, **263**, **269**, **273-2**, **286**) are in the 'lower' (less professional) Category 2^{-}, and these should be noted for further discussion when other features of these MSS are examined in the remainder of Chs 4-7. Fourteen were produced professionally (Category 2), as were the fifteen in Category 2^{+}, and eleven are in Category 1^{-} or 1. For the moment we note that c. 20% (11 out of 51) fall into the 'lower' end of the professional spectrum (Category 2^{-}) in this period, perhaps a function of the greater number of MSS produced at this time due to the wider dissemination of Christian works when Christian groups were expanding and hence a broader range of copyists being involved. The smaller number of MSS assigned to Categories 1^{-} / 1 compared to Categories 2^{-} / 2 / 2^{+} indicates that high quality 'calligraphic' MSS were not as abundant as those in Categories 2^{-} – 2^{+}, as is also true in MSS with a start-date in II AD, but to a lesser degree. Still, there is no sign of non-professional writers having copied MSS in this group during this period.

In IV AD, when we would expect to have more MSS being produced due to the toleration and encouragement of open Christian confession by the Roman authorities, the number of extant MSS does increase markedly. Within that greater number we begin to see a small number of MSS in Category 3 (**87-2**, **136**, **205, 220**, **239**, **255**) and 3^{+} (**132-1**, **134-1** Pl. 33, **246-1**, **308** Pl. 34), the latter perhaps not very different from those in Category 2^{-} which all need to be especially noted when we are examining their other features. What is also evident is the clear increase in the *proportion* of MSS in Category 1^{-} (III AD, c. 10%; IV AD, c. 12%) and Category 1 (III AD, c. 12%; IV AD, c. 48%), which is also explicable due to the sanction of Christian faith by Roman authorities. More opportunities were now available for having MSS copied; indeed, we know that some were even commissioned by emperors, such as the fifty copies of the complete Bible commissioned by Constantine. Thus, there is clearly an observable trend for MSS to be produced to a high (calligraphic) standard; but along with this (and along with the greater number of extant MSS from this period) there were also a small number of MSS produced by those who were not professional scribes, but who could write or were in the process of learning to do so. In this connection the hands of four MSS from IV AD (**136**, **205**,

239, **255**) have been described as 'school' or 'beginner's' hands,[21] presumably as the OT began to be used as part of the curriculum of learning to write in some schools. Such MSS may have been partly the result of Julian's short-lived attempt to force Christians to use only their own texts in schooling their young (*Ep.* 61.422a-424a). Indeed, writers such as Augustine suggested that the OT and NT scriptures should be the basis of a truly 'Christian' education (cf. *de doct. christ*. 4.6.9-10).

Figure 4.4 **MSS in Categories of handwriting quality (Group B – NT texts)**

Cat.	*3*	*3⁺*	*2⁻*	*2*	*2⁺*	*1⁻*	*1*
II AD			**559-1** (Pl. 8)	**362-1**, **462** (Pl. 7)	**371-1** (Pl. 5), **462-1**	**406**, **426** (Pl. 4)	**336+403**, **372**
III	**347** (Pl. 24), **548**, **557**, **559**	**441**, **522**, **537**, **558**	**380**, **430-1**, **444**, **459**, **461-1**, **467-1**, **488**, **521-1**, **536,** **547**	**416-1**, **422**, **426-1**, **428**, **473-1**, **486**, **498**, **526**, **559-2**, **565**	**332**, **336-1**, **340-1**, **360**, **371**, **461-2**, **492**, **524**, **534**, **535-1**, **536-1**, **543,** **547-1**	**356**, **374**, **442-1** (Pl. 15), **462-2**, **485**, **493-1**, **495**, **497**, **501-1**, **528,** **555**	**448**
IV	**345**, **359** (Pl. 36), **482**, **490**, **539**, **554**	**378**, **511**, **562**	**342-1**, **451**, **538-1**	**351**, **477**, **478**, **504-1**	**411**, **467-2**, **514-1**	**355-1**, **357**, **361,** **415**, **479**, **505**, **516**, **523**, **545**, **551**, **561** (Pl. 27)	**331**, **353**, **366**, **367**, **368**, **379**, **383**, **386-1**, **394**, **396**, **397**, **428-1**, **436**, **474**, **494**, **496**, **504**, **509-1,** **542**, **550**, **563**, **564**, **565-1**

With respect to MSS in Group B there are some points to be made on the basis of Fig. 4.4 above, which presents the MSS in that Group classified according to the level of handwriting. Little can be said about MSS with start-dates in II AD, since the numbers are quite small; but it should be observed that again there is no evidence of MSS being copied by non-professional writers in this period. As for MSS with start-dates in III AD, there are ten at the lower end in Category 2^-, with twenty-three MSS in Categories 2 / 2^+; there are also twelve whose hand may be called 'calligraphic,' although eleven of these are in the 'lower' Category 1^-. Here, it is noticeable that MSS in Category 3 begin to appear earlier than in Group A, where those deemed to have been written by non-professional writers are in Category 3 (**347** Pl. 24, **548**, **557**, **559**) or Category 3^+ (**441**, **522**, **537**, **558**), the latter again perhaps not too different

[21] Cribiore, *Writing*, 280 (No. 403), 278 (No. 396), respectively, calls the hands of **136** and **239** 'evolving' and that of **205** 'alphabetic' (278, No. 397); and comments that in **255** the hand is '"rapid," but deteriorates toward the end,' and has 'difficulty with alignment' (248, No. 307).

from those in Category 2^{-}. The MSS in Categories 3 / 3^{+} will merit attention as we examine other features in the remainder of Chs 4-7.

If we now compare those MSS with start-dates in IV AD, it is clear that there is a slight increase in MSS in Category 3 (**345**, **359** Pl. 36, **482**, **490**, **539**, **554**) and Category 3^{+} (**378**, **511**, **562**), but a marked decrease in MSS in Categories 2^{-} / 2 / 2^{+}. However, there is a noticeable increase in MSS copied to a calligraphic standard, with thirty-four MSS in Categories 1^{-} (eleven MSS) and 1 (twenty-three MSS). There appears, then, to have been a strong trend toward NT MSS being copied to a calligraphic standard, although the proportion of MSS copied by unskilled (non-professional) writers has not changed noticeably. The factors suggested above under Group A which might explain this phenomenon would apply here too; but the point to note in particular is that there is no evidence of MSS copied by non-professional writers before III AD. A small number of such MSS appears in III AD, but this does not increase notably in IV AD.

Figure 4.5 **MSS in Categories of handwriting quality (Group C – 'Apocryphal' texts)**

Cat.	*3*	*3⁺*	*2⁻*	*2*	*2⁺*	*1⁻*	*1*
II AD			**581**, **592**, **598-1** (Pl. 9), **594**	**586**			
III	**569**		**587-1**, **589**, **593**, **611**	**605**	**587**, **599**, **608, 608-1**	**595**	**603**
IV			**578**, **579**, **580**, **584-1** (Pl. 31), **584-2** (Pl. 32), **584-3**, **585, 604**	**573**, **600-1**	**607**	**568+ 600**, **574**, **576**, **577**, **604-1**, **606**	**582**, **597**, **610**, **611-1**

When the MSS in Group C are classified in terms of their handwriting quality, the results appear in Fig. 4.5 above. In this Group all of the MSS with a start-date in II AD seem to have been copied by professional scribes, although not to a calligraphic standard and actually at the lower end of the spectrum of quality (mostly in Category 2^{-}). However, in III AD these 'apocryphal' texts seem to have begun to be copied by unskilled writers (cf. **569**), along with two (**595**, **603**) to a calligraphic standard by professional scribes (Categories 1^{-} / 1). Even those which we may assign to Categories 2^{-} / 2 / 2^{+} now have four representatives from Category 2^{+}. With respect to MSS with a start-date in IV AD, there are no more in Categories 3 / 3^{+}, but there is an overall increase in those in Categories 2^{-} / 2. This is consistent with the greater number of MSS in Group C in this period. However, the marked trend in this period

toward more professional production, which we have observed above for Groups A and B, is also evident here. When we examine other features of these MSS in the remainder of this thesis, we will need to take note of **569** (III AD, Category 3), as well as those in Category 2^{-} in all periods. For the moment, it would be difficult to conclude that there is either an increase or decrease in MSS being copied by non-professionals in this group based on the evidence available in terms of their handwriting. We only note that there is a higher proportion of MSS produced to a calligraphic standard in the latter part of the time period in view.

Fig. 4.6 now presents the MSS in Group D in their handwriting Categories.

Figure 4.6 **MSS in Categories of handwriting quality (Group D – Patristic texts)**

Cat.	*3*	*3⁺*	*2⁻*	*2*	*2⁺*	*1⁻*	*1*
II AD		**657**		**655-1**	**667-1**		**671**
III		**672**, **682**	**624**, **695**, **700**	**636**, **688**, **696**, **649-1**, **694**	**654-2**, **660**, **662**, **664-1**, **668**, **683-1**, **694-3**	**659-1**, **665**, **666-1**, **674**, **691**, **699**	**681**
IV	**667**	**658-1**, **677**, **693**	**626**, **648**, **648-1**, **654-1**, **661**, **698-2**	**627**, **689+ 690**, **692**	**642**, **664**, **694-1**	**623**, **659**, **663**, **697**	**630-1**, **631-2**, **678**, **679**, **686-1**

For the MSS in Group D no firm conclusions should be drawn with respect to MSS with a start-date in the II AD, except that **657** has been assigned to Category 3^{+}, indicating a non-professional writer in that early period. Like the MSS in Group C, those in this group with start-dates in III AD show a few at the non-professional end of the spectrum, now in Category 3^{+} (**672**, **682**). However, again the bulk of the MSS from III AD are in the professional Categories (2^{-} – 1), with six (**659-1**, **665**, **666-1**, **674**, **691**, **699**) in the lower calligraphic Category 1^{-} and one (**681**) in the upper calligraphic Category 1. Once more, the evidence seems to indicate that it was extremely rare for such texts to be copied by non-professional writers. MSS with start-dates in IV AD show that some were copied by unskilled writers in Categories 3 (**667**) and 3^{+} (**658-1**, **677**, **693**). We will note these MSS, as well as those in Category 2^{-}, in our study of other features of the MSS in Chs 4-7. It is noticeable here again that, while the lower end of writing quality continues to be represented in this Group in IV AD, the bulk of MSS were copied by professional scribes, and the number of those copied to calligraphic quality increased and became comparable in

proportion to those copied by professional scribes but without calligraphic pretensions.

We will not present the results for MSS in Group E (Hagiographic texts) in the form of a Figure, since there are only four MSS. In this Group all MSS have start-dates in IV AD, with **715-2** in Category 3, **710-1** and **704-1** in Category 3^{+}, and **710** in Category 1^{-}. It is pointless to draw conclusions about proportions of MSS in this Group; but we will take note of those in Categories 3 / 3^{+} when examining other features of the MSS in the remainder of Chs 4-7.

The MSS in Group F are now classified in Fig. 4.7 below in terms of their handwriting qualities. **721** and **772** were unable to be assigned due to lack of data.

Figure 4.7 **MSS in Categories of handwriting quality (Group F – Liturgical or private prayers)**

Cat.	*3*	*3⁺*	*2⁻*	*2*	*2⁺*	*1⁻*	*1*
I AD							**911 J**
II AD							
III	**733-2**, **968**, **1035**	**847**	**722** (Pl. 19), **1036**, **1037-5**	**912-1**, **949**, **962**, **983**, **1036-1**	**952**	**1037-1**	
IV	**728**, **739**, **849**, **892-7, 892-8**, **893**, **902**, **914**, **918**, **918-3**, **948**, **949-1**, **953**, **967**, **971**, **996-1 J, 1050**	**844**, **862**, **863**, **864**, **918-1, 918-4**, **949-2**, **955**	**895**, **921, 948-3**, **951**, **1034-1**	**774-5**, **891-1**, **892-2**, **892-6, 966**, **1002**	**891**, **966-1**	**998**	**879**, **1037-4**

Group F represents a collection of 'liturgical and private prayers,' a number of which are actually amulets with petitions for help against harm. So, many of them are of an informal nature, and the results of an analysis of their handwriting are consistent with this. On the other hand, one certain Jewish example from I AD (**911 J**) shows an evident calligraphic hand at work, while the other certain Jewish example from IV AD (**996-1 J**) stands at the other extreme and is clearly the work of a quite unskilled hand. For MSS with a start-date in the III AD there is one in Category 1^{-}, but most belong to the 'professional but not calligraphic' Categories 2^{-} / 2 / 2^{+}. Here the informal nature of the texts is clearly reflected already in the slightly higher number of MSS in Category 3 (**733-2**, **968**, **1035**) and Category 3^{+} (**847**). Even so, the majority of MSS in this period seem to have been copied by professional scribes.

When we examine MSS with start-dates in IV AD, there is still a fair proportion of MSS in Categories 2^{-} / 2 / 2^{+}, as well as some in Categories 1^{-} / 1. However, there is now a remarkable proportion of MSS in Category 3 (41%; **728**, **739**, **849**, **892-7**, **892-8**, **893**, **902**, **914**, **918**, **918-3**, **948**, **949-1**, **953**, **967**, **971**, **996-1 J**, **1050**) and Category 3^{+} (20%; **844**, **863**, **864**, **862**, **918-1, 918-4**, **949-2**, **955**). This may reflect an increase in the use of such amulets by people in the IV AD, consonant with the increase in numbers of people who aligned themselves with the Christian faith when it was given official sanction by the emperors. But, whatever the reason, it is a striking fact that the non-professional copying of such MSS increased markedly in IV AD, while the number of MSS representing the other Categories only increased slightly. This would seem to be more than an accident of discovery; so the reasons for this phenomenon would be important to pursue. For the present, however, it is enough to take note of those copied by non-professional hands, and trace further aspects of their features in the remainder of Chs 4-7.

In Group G (Gnostic and Manichaean texts) there are not enough MSS to warrant their representation in a Figure, but an inspection of their handwriting yielded the following results. **1065-1** (III AD, Pl. 22) has been assigned to the non-professional Category 3, but most of the MSS from III AD show a degree of professionalism, whether in Category 2^{-} (**1066-6**), Category 2 (**1065**), or Category 2^{+} (**1069**, **1071**). Amongst those MSS from IV AD, **1067** was assigned to Category 3^{+}, and the remainder to Category 2 (**1067-1**) and Category 2^{+} (**1064**, **1066-1**, **1066-2**, **1066-3**, **1066-4**, **1066-5, 1070**). Clearly the two MSS assigned to Category 3 (**1065-1** Pl. 22) and Category 3^{+} (**1067**) will need to be observed in relation to their other features. It is of interest to note that there appear to be no MSS in this Group which exhibit handwriting in professional calligraphic form (Categories 1^{-} / 1). Nevertheless, four out of five in III AD and seven out of eight in IV AD were produced by professional scribes. Yet, it would be unwise at this stage to draw any firm conclusions with respect to trends in the use of professional scribes from the small amount of data available here.

The MSS in Group H (magical texts) are not numerous, but among those with start-dates in II AD **1079-2** was assigned to Category 3 (see Pl. 11) and **1076** to Category 2. MSS with start-dates in III AD show a professional hand at work, **1077** placed in

Category 2^{-} and **1081** in Category 2. As for those MSS from IV AD, three (**1073**, **1078, 1080**) were placed in Category 3, **1080-1** in Category 2^{-}, two (**1074**, **1079**) in Category 2, and **1075** in Category 1^{-}. Therefore, these magical texts show a calligraphic form only rarely, and then only in the IV AD; but most often, a professional hand is evident, with a non-professional hand occasionally at work (**1073**, **1078**, **1079-2**, **1080**). Again, because of the small number of MSS in this Group, it would be unwarranted to draw conclusions with respect to the development of the use of professional scribes for their production. However, in later sections we will review the MSS that seem to show a non-professional writer at work. It is noticeable that professional hands were involved in the production of a majority of the texts, with perhaps some increase of non-professional writers copying them in IV AD, as was also the case in Group F.

The MSS in Group I are classified in handwriting Categories in Fig. 4.8 below. **1083** was not able to assigned to a Category due to lack of data.

Figure 4.8 **MSS in Categories of handwriting quality (Group I – Unidentified texts)**

	3	*3*$^{+}$	*2*$^{-}$	*2*	*2*$^{+}$	*1*$^{-}$	*1*
I BC						**1093-1 J**	
I AD						**1094 J**	
II AD				**1130**, **1150-2**		**1150-3**	**1176-1** (Pl. 2)
III		**1154** (Pl. 21), **1178**	**1141-1**, **1146-3**	**1122**, **1136**, **1139**, **1142-5**, **1145** (Pl. 18), **1146-2, 1151**	**1121** (Pl. 16), **1125**, **1133**, **1137**, **1156, 1175**	**1108**, **1158, 1190-1**	**1152**
IV	**1091**	**1093, 1126-6**, **1148**, **1150-4**	**1131**, **1147**, **1188-1**	**1126-3**, **1127**, **1157** (*m.*1), **1159**	**1135-1**, **1157** (*m.*2), **1160, 1169**	**1092**, **1149-1, 1149-2**, **1177**	

Group I is a collection of papyri containing unidentified texts, which naturally results in this Group being a mixture of types. As a result, we would expect it to be erratic in a number of ways. The two certain Jewish MSS in this Group have start-dates in I BC (**1093-1 J**) and I AD (**1094 J**), and both are assigned to the lower calligraphic Category 1^{-}. Clearly, the contents were seen as deserving special treatment by being copied in this manner. Amongst the four MSS with start-dates in II AD all seem to have been professionally copied, with two (**1130**, **1150-2**) showing professional but not calligraphic hands (Category 2) and two (**1150-3**, **1176-1** Pl. 2) showing calligraphic hands (Categories 1^{-} / 1). In III AD two MSS (**1154** Pl. 21, **1178**) were copied by non-professional writers, although in a slightly 'better' hand (Category 3^{+}).

The rest of the MSS seem to have been copied professionally – two (**1141-1**, **1146-3**) somewhat poorly (Category 2^{-}), seven adequately (Category 2), and six quite well (Category 2^{+}). Four MSS are written with calligraphic hands, three at the lower end of this Group (Category 1^{-}) and one at the upper end (Category 1).

When we compare the MSS with start-dates in the IV AD, the number (and proportion) of MSS in Categories 2^{-} / 2 / 2 does not change markedly, nor do they change much in Categories 1^{-} / 1. However, there is a slight increase in MSS copied by non-professional hands in comparison with the earlier period. Clearly, we will take note of those in Categories 3 / 3^{+} in further investigation of the features of MSS, and perhaps also those in Category 2^{-}; but it is noteworthy that there is not a marked increase or decrease in the proportion of MSS copied by professional hands. Given the almost certainly diverse nature of the texts in this group, there is no warrant for drawing conclusions about trends, nor do the numbers of MSS in the various Categories of professional hands offer any material for entertaining a hypothesis with regard to this question.

The two MSS in Group J were unable to be assessed with regard to their handwriting, since they were both lost without information about their handwriting being recorded.

In conclusion, the MSS were analysed in content Groups, since they exhibit similar types of textual content, with the exception of Group I (unidentified texts). When other features of the MSS are examined further in the remainder of Ch. 4 and Chs 5-7, the initial assessment of the professionalism of the copyist based on their handwriting will be compared with other features, which will serve to confirm that initial assessment or call it into question. Thus, we will need to take particular note of those MSS in Categories 3 / 3^{+}, but also keep in view those in Category 2^{-}, since the difference between the handwriting of these and the MSS in Category 3^{+} may be slight and perhaps somewhat artificial. Since the aim of this study is to assess the degree to which Christian MSS were copied by professional scribes versus non-professional writers, the major point of comparison will be between those in Categories 3 / 3^{+} (non-professional writers) and those in Categories 2^{-} – 1 (professional scribes). In the rest of Chs 4-7 we will make note of the extent to which other features of these MSS bear out this initial estimate of their handwriting.

Fig. 4.9 below gives the MSS in Categories 3 / 3^+ / 2^- for Groups A-I, since these are the MSS of which we will take particular notice. The Figure only lists those MSS in II–IV AD, because those with start-dates in the three previous centuries are clearly Jewish, and are only included for the purposes of comparison.

Figure 4.9 **MSS in Categories of non-professional (and less professional) handwriting quality**

	3	*3⁺*	*2⁻*
		Group A	
III			**4**, **7**, **30**, **44** (Pl. 20), **62**, **77-1**, **81-1**, **263**, **269**, **273-2**, **286**
IV	**87-2**, **136**, **205, 220**, **239**, **255**	**132-1**, **134-1** (Pl. 33), **246-1**, **308** (Pl. 34)	**3**, **90**, **133**, **138**, **143**, **170-1**, **195**, **239-2**, **263-1**
		Group B	
II AD			**559-1** (Pl. 8)
III	**347** (Pl. 24), **548**, **557**, **559**	**441**, **522**, **537**, **558**	**380**, **430-1**, **444**, **459**, **461-1**, **467-1**, **488**, **521-1**, **536**, **547**
IV	**345**, **359** (Pl. 36), **482**, **490**, **539**, **554**	**378**, **511**, **562**	**342-1**, **451**, **538-1**
		Group C	
II AD			**581**, **592**, **594**, **598-1** (Pl. 9)
III	**569**		**587-1**, **589**, **593, 611**
IV			**580**, **579**, **584-1** (Pl. 31), **584-2** (Pl. 32), **584-3**, **585**, **604**
		Group D	
II AD		**657**	
III		**672**, **682**	**624**, **695**, **700**
IV	**667**	**658-1, 677**, **693**	**626**, **648**, **648-1**, **654-1**, **661**, **698-2**
		Group E	
IV	**715-2**	**704-1, 710-1**	
		Group F	
III	**733-2**, **968**, **1035**	**847**	**722** (Pl. 19), **1036**, **1037-5**
IV	**728**, **739**, **849**, **892-7**, **892-8**, **893**, **902**, **914**, **918**, **918-3**, **948**, **949-1**, **953**, **967**, **971**, **996-1 J, 1050**	**844**, **862**, **863**, **864**, **918-1, 918-4**, **949-2**, **955**	**895**, **921, 948-3**, **951**, **1034-1**
		Group G	
III	**1065-1** (Pl. 22)		**1066-6**
IV		**1067**	
		Group H	
II AD	**1079-2** (Pl. 11)		
III			**1077**
IV	**1073**, **1078, 1080**		**1080-1**
		Group I	
III		**1154** (Pl. 21), **1178**	**1141-1**, **1146-3**,
IV	**1091**	**1093, 1126-6**, **1148**, **1150-4**	**1131**, **1147**, **1188-1**

This list will be used as a basis for comparison with the MSS on my database when other features are studied, so it provides at least an initial list of those MSS probably *not* copied by professional scribes.[22]

4.5 **Writing surface**

a. *Material*

The writing surface and implements used to produce MSS were discussed above in Ch. 3 (§3.3a). For the MSS in my database, the surface on which writing was placed may be analysed as in Fig. 4.10 below in terms of numbers of MSS, where abbreviations have been used for papyrus (P), parchment (V = vellum) and wood (W). Numbers of MSS are given for each category. See App. 3, Table 3 for a detailed list of MSS.

Figure 4.10 Numbers of MSS – materials

	II	*IBC*	*IAD*	*II*	*III*	*IV*	*Totals*
Group A	P 2,V 1	P 5,V 3	P 2	P 16	P 46, V 5	P 45, V 43, W 3	P 116, V 52, W 3
Group B				P 10	P 50, V 3	P 29, V 24	P 89, V 27
Group C				P 5	P 11, V 1	P 16, V 6	P 32, V 7
Group D				P 4	P 22, V 2	P 20, V 6	P 46, P 8
Group E						P 4	P 4
Group F			P 1		P 15	P 38, V 3, W 1	P 54, V 3, W 1
Group G					P 4, W 1	P 7, V 1, W 1	P 11, V 1, W 2
Group H				P 2	P 2	P 7	P 11
Group I		P 1	P 1	P 4	P 20, V 2	P 18, V 1	P 44, V 3
Group J						P 2	P 2
Totals	P 2, V 1 (3)	P 6, V 3 (9)	P 4 (4)	P 41 (41)	P 170, V 13, W1 (184)	P 186, V 84, W 5 (275)	P 409, V 101, W 6 (516)

From these tallies it seems that in the case of Christian MSS, except for Group I (and perhaps Group F), parchment was becoming more popular for all groups of texts by IV AD, although papyrus continued to be far more common. It is clear from the totals for all texts (in the lower row of the Figure) that this was so in general. However, ***the kind of writing surface used has no obvious correlation with the professionalism of***

[22] Since only 80 out of a total 516 MSS seem to have been copied by non-professional writers, and a large proportion of these (29 out of 80 in Group F) were amulets or the like, this seems to bear out the remarks of C.H. Roberts, '*P.Yale* 1 and the early Christian book,' in A.E. Samuel (ed.), *Essays in Honor of C. Bradford Welles* (*ASP* 1; New Haven, American Society of Papyrologists, 1966) 26. He suggested that almost all the earliest Christian MSS are written in hands of practised (probably professional) scribes and resemble the better documentary hands of the period. 'They are the work of men who, used to writing, are not perhaps accustomed to writing books, and while striving to be as "literary" as possible betray the documentary practice with which they are more familiar.' He contrasts the Rylands Deuteronomy (**57 J**) and the Cairo Deuteronomy (**56 J**) as written 'in hands of almost hieratic elegance.' He compares *SPP* 11.114 (**167 J**) and two texts which in his view are also Jewish – *P.Harr.* 31 (Psalms, **148**) and *P.Lond.Lit*. 211 (Daniel, **319**) – although I do not take them as such.

the writing, except for the wooden tablets (**205**, **239**, **255**, **918-4**, **1066-5**, **1066-6**), some of which were school tablets and which may well represent a lower level of professionalism. Their small number (6 in all) may be seen to be the result of chance preservation and discovery, and it would be unwise to draw any other conclusions, except to say that wood was used quite rarely and in specific circumstances.

b. *Quality*

The quality of the writing surface used for the MSS, whether papyrus or parchment, is not always able to be ascertained, and the paucity of editors' assessments of quality is testimony to this.[23] However, based on my autopsy of MSS, inspection of plates and the statements of editors, we may analyse the data presented in Fig. 4.11 below, recognising that the tallies are necessarily imperfect because of subjective assessments of 'quality,' and also that quite a number of MSS are not represented because it was not possible to establish the quality of their writing surface. Further, the quality of the material used in very fragmentary texts is often difficult to assess due to their present damaged state. For those MSS about which it has been possible to offer some assessment of quality I have used a scale from 'fine' (smooth, often thin) down to good, medium, and 'poor' (coarse or rough), recognising again a degree of subjectivity in this assessment.[24] As well, the basis for judging the quality of papyrus differs from that for parchment, but this will not be featured in the following discussion. For the reasons specified above, only 90 MSS out of 516 have been assigned a quality: 37 fine, 3 fine-good, 15 good, 1 good-medium, 9 medium, 3 medium-poor and 22 poor. In their content Groups the numbers are given in Fig. 4.11, omitting Groups E and J since they have no assessable MSS. A dash indicates that no data is available. See App. 3, Table 3 for a full list of the MSS.

[23] On the different qualities of papyrus see Turner, *Greek Papyri*, 2-3.

[24] A good example of a poor quality papyrus is **654-1**. Its *kollêmata* are of irregular size, unlike high quality papyri, leaves being made from pieces cut from a pre-fabricated roll. Each *kollêma* has quite variable quality and colour. Close to the *kollêsis* there are traces of glue, which is a further indication of the low quality of the papyrus. See A. Carlini, L. Giaccone, *P.Bodm.* XXXVIII, 12-13; R. Kasser et al., 'Appendice: nouvelle description du codex des visions,' *P.Bodm.* XXXVIII, 112-13. At the other extreme, **38 J** is made from well-prepared papyrus and the surface is quite smooth, although not preserved well now; see M. Baillet, *DJD* 3, 142-43, pl. 30. **380** (*P.Mich.* inv. 6652) consists of three fragments of two leaves, which vary between fine and coarse, and hence in general 'poor.'

Figure 4.11 **Numbers of MSS – qualities (by content Groups)**

Group A	116 papyrus: 52 parchment:	8 fine, 2 good, 1 good-medium, 3 medium, 6 poor 13 fine, 1 medium
Group B	89 papyrus: 27 parchment:	3 good, 1 medium, 7 poor 7 fine
Group C	32 papyrus: 7 parchment:	1 good, 2 medium, 1 medium-poor 1 fine
Group D	46 papyrus: 8 parchment:	2 fine, 1 fine-good, 3 good, 1 medium-poor, 2 poor 2 fine, 1 poor
Group F	54 papyrus: 3 parchment:	2 fine, 3 good, 1 medium, 3 poor 1 good
Group G	11 papyrus: 1 parchment:	1 poor –
Group H	11 papyrus:	1 fine, 1 medium
Group I	44 papyrus: 2 parchment:	1 fine, 2 fine-good, 1 good, 1 medium-poor, 1 poor 1 good

If we analyse the Groups according to the start-dates of the MSS, and use abbreviations for fine (F), good (G), medium (M) and poor (P), and also use combinations such as 'fine-good' (FG) for qualities in between the main categories, the results are as in Fig. 4.12 below. Tallies beside each Group name indicate the total number of entries in that Group which have quality specified; the adjacent number in brackets gives the total number of MSS in that group for the purposes of comparison. Groups E and J are again omitted since no information is available as to the quality of the MSS.

Figure 4.12 **Numbers of MSS – qualities (by century start-dates)**

	II	*I BC*	*I AD*	*II*	*III*	*IV*	*Totals*
Group A 35 (171)	F 3	F 4,G 1, M 1		F 1, G 1, MG 1	F 4, M 3, P 2	F 9, P 5	F 21, G 2, GM 1, M 4, P 7
Group B 18 (116)				G 2, M 1, P 1	F 1, P 1	F 6, G 1, P 5	F 7, G 3, M 1, P 7
Group C 5 (39)				M 1, MP 1	M 1	F 1, G 1	F 1, G 1, M 2, MP 1
Group D 12 (54)				FG 1	F 3, G 2, P 1	F 1, G 1, MP 1, P 2	F 4, FG 1, G 3, MP 1, P 3
Group F 10 (58)					F 1, G 2, P 1	F 1, M 1, G 2, P 2	F 2, G 4, M 1, P 3
Group G 1 (14)						P 1	P 1
Group H 2 (11)					M 1	F 1	F 1, M 1
Group I 7 (47)		FG 1	FG 1		G 2, P 1	F 1, MP 1	F 1, FG 2, G 2, MP 1, P 1
Totals	F 3	F 4, FG 1, G 1, M 1	FG 1	F 1, FG 1, G 3, GM 1, M 2, MP 1, P 1	F 9, G 6, M 5, P 6	F 20, G 5, M 1, MP 2, P 15	F 37, FG 3, G 15, GM 1, M 9, MP 3, P 22
90 (516)	3 (3)	7 (9)	1 (4)	10 (41)	26 (184)	43 (275)	90 (516)

From these tallies in Figs 4.11 and 4.12, only for Groups A (OT) and B (NT) are there sufficient numbers of MSS to yield significant conclusions. OT parchment MSS seem to be Fine much more often, as do NT parchment MSS. In the case of OT MSS, 7 of those classified as Fine are Jewish, which leaves 14 Christian OT MSS as Fine – still quite a high proportion. Thus, when we can ascertain quality, Fine OT MSS (especially parchment ones) and NT parchment MSS seem to be in greater abundance than those of lesser quality. It is notable, however, that in both Group A (OT) and Group B (NT) papyrus MSS, there are a significant number of poor quality ones in comparison with the rest. With regard to OT MSS (Group A), this seems to show a bias toward using fine material in comparison to poorer materials, which is also true of NT parchment MSS. In view of the fact that parchment came into vogue more from IV AD, this would probably be a later trend, certainly from III and IV AD, especially for NT MSS. However, the small numbers of assessable MSS give us cause to be hesitant about drawing firm conclusions from these tallies, especially in light of the fact that the majority of our MSS come from III and IV AD.

At this stage, we should take note of those MSS at the lower end of the quality scale, that is, medium, medium-poor or poor, since ***the quality of the materials used might correspond with a lower level of professionalism in the writing***. This may provide some confirmation in our endeavour to locate MSS produced by non-professional writers, although this criterion will have limited use due to the proportionately small number of MSS whose quality is able to be ascertained. Further, this list is only to be used as *confirmation* of MSS already listed in handwriting Categories 3 / 3^{+} and Category 2^{-}. The MSS whose writing surface is classified in this group of poorer quality are listed in Fig. 4.13 below, which can be checked against the full list of MSS in App. 3, Table 3.

Figure 4.13 **MSS made from lower quality material (papyrus and parchment)**

Quality	*Medium*	*Medium-poor, poor*
Group A	**4**, **49 J, 81-1**, **263**, **303**	**77-1**, **87-2**, **121**, **136**, **263-1**, **299**, **308**
Group B	**406**	**380**, **386-1**, **411**, **426**, **482**, **511**, **550**
Group C	**586**, **605**	**592**
Group D		**627**, **654-1**, **689+690**, **698-2**, **699**
Group E		**710-1**
Group F	**891-1**	**955**, **968**, **1034-1**
Group G		**1066-2**
Group H	**1081**	
Group I		**1122**, **1126-3**

The above MSS may well have been produced by non-professional writers.

4.6 '**Book' form**

'Book' forms were reviewed in Ch. 3 (§3.3b) above. The number of early Jewish and Christian MSS with various 'book' forms is given in Fig. 4.14 below, with full details in App. 3, Table 1.[25] Abbreviations have been used for codex (C), roll (R), sheet (S) and tablet (T); fragment (F) is used where it is unclear whether a MS originally belonged to a codex or a roll, or was simply a sheet; C(T) refers to a codex made up of wooden tablets. When it is unclear whether a MS falls into one category or another, the codes have been compressed, so that, for example, CS = codex or sheet. In some instances it is uncertain what form the MS represents, but the most probable form has been given with a question mark. This is particularly the case when a fragmentary MS has writing on one side only, since it is commonly (and correctly for the most part) assumed that the MS did not form part of a codex; but whether it formed part of a roll or was a single sheet is sometimes unclear. If such a fragmentary MS has writing on both sides, and especially if the text comes from the same work (or a related work), then it is usually (again, correctly for the most part) assumed that it did form part of a leaf of a codex.[26]

In Fig. 4.14 the total number of MSS for each Group is given in the left hand column. Numbers of MSS whose book form is certain have been listed first in each category, so that 'fragments' are listed in the uncertain group. Numbers of MSS follow the abbreviations of book form (C, R, etc.).

[25] The word 'book' is used for all of these forms, even though a sheet or wooden tablet might not seem to be a 'book' in normal usage. Even a roll would not be easily spoken of as a 'book,' although this expresses a modern point of view which virtually equates codex with book. This was not so prior to IV AD. The word 'book' has been retained here, in order to have an overall term for the forms examined in this section.

[26] Examples of MSS where there is some uncertainty about their original form include the following: **301** (from a roll or the last page of a codex; CR), **1157** (*P.Oxy.* 17.2073, the editor expressing the view that it could be the remains of an opisthograph roll or a leaf of book; however it could just as easily be from a sheet, as the *LDAB* suggests for it under No. 5715; hence F in my nomenclature).

Figure 4.14 **Numbers of MSS – 'book' forms**

	II BC	*I BC*	*I AD*	*II*	*III*	*IV*	*Totals*
Group A 171	R 3	R 8	R 2	C 13, S 1, RS 1, R? 1	C 40, R 7, S 1, CS 1, RS 2	C 67, R 2, S 10, T 1, CR 1, CS 2, C(T) 2, F 1, RS 4, S? 1	C 120, C(T) 2, R 22, S 12, T 1, CR 1, CS 3, F 1, R? 1, RS 7, S? 1
Group B 116				C 9, R 1	C 49, R 3, S 1	C 49, S 3, CS 1	C 107, R 4, S 4, CS 1
Group C 39				C 3, S 1, RS 1	C 8, R 1, RS 2, S? 1	C 21, R 1	C 32, R 2, S 1, RS 3, S? 1
Group D 54				C 1, R 3	C 18, R 5, RS 1	C 23, R 1, C? 1, CS 1	C 42, R 9, C? 1, CS 1, RS 1
Group E 4						C 2, R? 1, S? 1	C 2, R? 1, S? 1
Group F 58			R 1		R 2, S 11, CS 2	C 8, S 29, T1, CS 2, RS 2	C 8, R 3, S 40, T 1, CS 4, RS 2
Group G 14					C 2, R 2, T 1	C 4, R 1, S 2, T 1, C? 1	C 6, R 3, S 2, T 2, C? 1
Group H 11				S 2	R 1, S 1	C 2, R 3, S 1, CS 1	C 2, R 4, S 4, CS 1
Group I 47		R 1	R 1	R 3, CR 1	C 8, R 6, S 3, C? 1, CS 1, R? 1, RS 2	C 10, R 2, S 3, F 4	C 18, R 13, S 6, C? 1, CR 1, CS 1, F 4, R? 1, RS 2
Group J 2						S 2	S 2
Totals 516	R 3	R 9	R 4	C 26, R 7, S 4, CR 1, R? 1, RS 2	C 125, R 27, S 17, T 1, R? 1, C? 1,CS 4, S? 1, RS 7	R 10, S 50, C 186, T 3, R? 1, C? 2, CS 7, CR 1, C(T) 2, F 5, S? 2, RS 6	C 337, C(T) 2, R 60, S 71, R? 3, C? 3, RS 15, S? 3, T 4, CS 11, CR 2, F 5
	(3)	(9)	(4)	(41)	(184)	(275)	(516)

Of the 171 MSS in Group A (OT MSS), there are 120 codices (including 16 miniature codices), 2 codices of tablets (**205**, **239**), 22 rolls, 12 sheets and 1 tablet (**255**). Those MSS whose original form is uncertain are those which were a codex or a roll (**301**), and a codex or a sheet (**222-2**, **263-1**, **275**); **20** is classed as a 'fragment' and **112-1** may be from a roll; 7 MSS were either a roll or sheet, and **132-1** was probably a sheet. If we discard from our discussion the MSS of uncertain form, we have available for further analysis the remaining 122 codices, 22 rolls, 12 sheets and 1 tablet.

Of the 116 MSS in Group B, there are 107 codices, 4 rolls and 4 sheets, and **474** is from either a codex or a sheet. In Group C there are 32 codices represented, 2 rolls (**584-1**, **595**), and 1 sheet (**581**); 3 MSS (**589**, **592**, **593**) were either rolls or sheets, and **587-1** is likely to be a sheet. Of the MSS in Group D, 42 were codices, 9 were rolls, and **630-1** was probably a codex. **698-2** was either a codex or a sheet, and **699** was either a roll or sheet. Of the 4 MSS in Group E, 2 (**710**, **710-1**) were codices, **704-1**

was likely a roll and **715-2** a sheet. Group F consists of 58 MSS, of which 8 were codices, 3 were rolls (**722** Pl. 19, **911 J**, **962**), 40 were sheets, 4 were either codices or sheets, while **739** and **966** were either rolls or sheets. The 14 MSS in Group G comprise 6 codices, 3 rolls (**1065-1** Pl. 22, **1069**, **1070**), 2 sheets (**1066-3**, **1067**) and 2 tablets (**1066-5**, **1066-6**); **1067-1** might have been a codex. Group H includes 2 codices (**1073**, **1074**), 4 rolls, and 4 sheets; **1080-1** was either a codex or a sheet. Due to the uncertain nature of the texts in Group I, we would expect a variety of formats here, which is what occurs. Of the 47 MSS in this group 18 were codices, 13 rolls, and 6 sheets. Further, **1125** might have been a codex, **1130** was either a codex or a roll, **1139** was either a codex or a sheet; 4 are 'fragments,' **1108** was likely a roll, while **1122** and **1175** were either rolls or sheets. The two MSS in Group J (**1224** and **1225**) were both sheets.

My analysis of the data leads to the following conclusions. With regard to Group A (OT MSS), ***the use of rolls was clearly declining in favour of codices. By II AD the codex was the predominant book form***, although there are still two rolls (**48**, **133**) from IV AD. The situation is similar with Group B (NT MSS), with no rolls from IV AD, and the trend applies for almost every other category where the numbers are significant enough to allow analysis. In Group D (Patristic texts) **694-1** is the only roll from IV AD. Even in the mixed Group I (Unidentified texts), the codex dominates, although there are more rolls proportionately, perhaps another result of the diverse nature of this Group. However, MSS in Group F (Prayers), which includes amulets and the like, are often sheets; and this practice continued into IV AD.

It has often been asked why Christians favoured the codex almost from the beginning of the Church, as far as the evidence seems to show. As we saw in Ch. 3 (§3.3b), in the early Roman Imperial period the normal form of book for literary works was the roll. Why was it that Christians adopted the codex form for their works, almost (if not actually) from the very beginning? This much-pondered question is not central to the focus of my investigation.[27] However, we might expect to find a lower level of professionalism among sheets and tablets, because they did not include 'literary' works. So those MSS that were certainly sheets or tablets are listed in Fig. 4.15 below.

[27] On reasons for the Christian adoption of the codex and the extent to which this was different fom that in wider society, see most recently Bagnall, *Early Christian Books*, 70-90.

Figure 4.15 **MSS that are (or *possibly* are) sheets, or are wooden tablets**

	Sheet (certain)	*Sheet (possible)*	*Tablet*	*Totals*
Group A	**3**, **84**, **88-1**, **117**, **121**, **134-1** (Pl. 33), **152-1**, **195**, **239-2**, **246-1**, **247-2**, **321** (12)	**20, 85-1**, **132-1**, **148**, **174**, **181**, **220**, **222-2**, **227-1, 263-1**, **275**, **319** (12)	**205**, **239**, **255** (3)	27
Group B	**345**, **482**, **490**, **536** (4)	**474** (1)		5
Group C	**581** (1)	**587-1, 589**, **592**, **593** (4)		5
Group D		**698-2**, **699** (2)		2
Group E		**715-2** (1)		1
Group F	**721**, **733-2, 772**, **774-5**, **844**, **847**, **849**, **891-1**, **892-2**, **892-7**, **892-8**, **893**, **895**, **902**, **912-1, 914**, **918**, **918-1**, **918-3**, **918-4**, **948**, **948-3**, **949**, **949-1**, **949-2**, **951**, **952**, **953**, **955**, **966-1**, **967**, **968**, **971**, **983**, **996-1 J**, **1002**, **1034-1**, **1036-1**, **1037-1**, **1037-5**, **1050** (40)	**739, 891**, **998**, **966**, **1035**, **1036** (6)	**918-4** (1)	47
Group G	**1066-3**, **1067** (2)		**1066-5**, **1066-6** (2)	4
Group H	**1076**, **1078**, **1079-2** (Pl. 11), **1081** (4)	**1080-1** (1)		5
Group I	**1093**, **1136**, **1137**, **1150-4**, **1177**, **1190-1** (6)	**1122**, **1139**, **1175** (3)		9
Group J	**1224, 1225** (2)			2
Totals	71	30	6	107

The MSS that cannot be firmly classified as sheets are listed in Fig. 4.15 above (col. 3), except for 'Fragments,' but due to their uncertain form they cannot be assumed to have been produced with a low degree of professionalism. Totals are given in brackets at the end of each subsection. The MSS listed in this Figure will be especially noted as we further explore evidence for professionalism applied to the MSS in my database.

4.7 **'Book' size**

A complete listing of the sizes of the MSS in my database is given in App. 3, Table 4. Measurements have been given in centimetres to one decimal place. Further, ranges in MS size have been represented in centimetres, usually given in full centimetres or in half centimetre units, unless greater accuracy is available. I use intervals of 1.5cm to classify the measurements into groupings for the purposes of comparison. Where a text is either unknown or only partially so, the process of reconstructing original dimensions from a MS cannot be undertaken with a high degree of certainty. Hence, the measurements for some codices or rolls with these texts are quite doubtful, and it was not felt warranted to speculate; so these are left indeterminate, and in Table 4 this

is shown with a dash. From the data presented in that Table the following observations may be made.[28]

a. *Group A*

i. Codices

If we analyse the certain papyrus codices by page breadth (while not ignoring page height), leaving aside the MSS for which we have either only a minimum breadth or no information about the breadth at all, of the fifty-four Group A codices which can be usefully examined for this feature, only three (**90**, **92**, **136**) measure 10cm or less, nine measure 10.1-11.5cm, thirteen measure 12-13.5 cm, fourteen are 14-15.5cm, six are 16-17.5cm, seven are 18-19.5cm, and two are 22cm. Therefore, in terms of their breadth there is a very small number of 'miniature' codices (breadth of 10cm or less) and an equally tiny number of larger codices (breadth more than 20cm). The rest spread out from 10cm to 20cm, with more in the lower half (10.1-15.5cm). It is not always easy to assign a MS to one of Turner's groups in an exact way, since height plays a part as well as breadth. However, if we compare these results with Turner's list of all papyrus codices (admittedly somewhat dated now),[29] the papyri on our list fall well within the kind of groups that he gives. Only a very few (e.g. **252**) possibly belong to his very largest sizes (Turner's Group 1), but even **252** might be better placed in his Group 3. Most fall in his Groups 3-10, and there are only 4 in his Group 11 (miniature codices). This demonstrates that the sizes of codices used for Christian works were not unusual.[30] Even if we note that more Christian MSS are 10.1-15.5cm than 16-20cm in breadth, these two breadth categories are largely the same as his Groups 3-6 (97 entries in Turner, *Typology*) and Groups 7-10 (101 entries in Turner, *Typology*). Hence, Christian papyrus codices tended to be in the lower half of breadth size – 'somewhat more compact' – but still well within a normal range for the period in view.[31] Hurtado infers from this that 'the sizes of Christian MSS more likely reflect the preferences and practices of the time in which they were prepared,'

[28] The data and valuable discussion of the size of codices (in particular) in Turner, *Typology*, 13-34, 43-54 and Hurtado, *Earliest Christian Artifacts*, 155-65 has been particularly useful for my own analysis in this section of the thesis.
[29] Turner, *Typology*, 14-22.
[30] Cf. Hurtado, *Earliest Christian Artifacts*, 157-65.
[31] Hurtado, ibid., 155-58 notes that the similarities are noticeable for II and III AD; quotation from p. 159.

rather than some other factor (such as ease of portability) being a determining influence.[32]

This implies that Christian OT papyrus codices were generally prepared not in an idiosyncratic way, but just as papyrus codices of the time were prepared.[33] In turn, this implies that those preparing them did so out of an awareness of what was 'normal.' On the basis of the surviving MSS we can be confident that it did not occur to anyone to produce codices for Christian texts with dimensions other than the usual. Further, this would support the conclusion that those generally responsible for manufacturing Christian papyrus codices were more likely to have been scribes and others whom we might call 'professional' than those who were unaware of what was usual in the making of papyrus codices at the time. Even the small number of miniature papyrus codices is consistent with the small number of miniature codices on Turner's list, although 8 out of 10 items listed in his group are Christian works, and 3 are in my database (or 4, if **179** is included, despite being slightly larger). So, miniature codices such as **92,** probably small-size copies for private reading, were apparently popular amongst Christians even from III AD;[34] but they are not without parallels amongst non-Christian papyrus codices.

As for parchment codices, almost all belong to IV AD, with the same provisos as above for papyrus codices. Of twenty-seven MSS with fairly definite measurements for breadth, ten are miniature codices (breadth 10cm or less), five are 10.1-11.5cm, six are 12-13.5cm, one is 14-15.5cm, two are 16-17.5cm, and three are more than 23cm. One comes from Turner's Group I (**15-1**), two from Group III (**30-1**, **19-1**), fourteen from Groups V to X, and (interestingly) ten from Group XIV (miniature).[35] This last tally seems to reflect a trend towards miniature parchment codices, but the extant parchment codices are still not unusual in any sense, since there are a number of parallels among non-Christian parchment codices, as there are for the large format codices. It is fair to add that the Christian MSS are quite heavily represented in

[32] Ibid., 158.
[33] Since all the Jewish MSS from earlier centuries were rolls, and hence only their column breadth is available, they do not form part of a comparison with the page breadth of Christian MSS here. They will be dealt with under the heading of column breadth later (Ch. 5, §5.2).
[34] Even in II AD **179** was made as a small-format papyrus codex (12x14cm).
[35] Note that Turner, *Typology*, uses Arabic numerals for groups of papyrus codices and Roman numerals for groups of parchment codices.

Turner's groups, so that we cannot draw too much significance from this comparison: in Turner's Group I **15-1** is the earliest listed, and in his Group III not only is **30-1** the earliest but there are only two others. Thus, the Christian parchment codices are a major proportion of the MSS in his Groups (especially I and II, the largest sizes), and this may simply be due to the fact that quite a number of these codices were preserved in mediaeval ecclesiastical or monastic libraries. Thus, while the parchment codices in my database are comparable in size to other MSS in Turner's groups, they are also themselves a significant part of his Groups; so it is not surprising that there is a degree of similarity with his size categories.

ii. Rolls

Leaving aside those MSS that were either rolls or sheets, all twenty-one certain rolls in my Group A are made from papyrus. Eleven are certainly Jewish, which leaves only ten that were Christian. Of these ten, only for **133** is the length known (4.12m). The available heights are as follows: **14** is greater than 12.8cm, **44** is greater than 15.1cm, **36-3** is 16.7cm, **300** is greater than 23cm, **133** is 27.5-28cm, and **77-2 J** greater than 30.2cm. Given that the usual height of a literary roll in the Roman period was 25-33cm, all of the above are typical, except the very small height of **36-3** which is similar to *P.Oxy.* 22.2335 (Euripides, *Andromache*, 2nd half II AD; see my Pl. 12).[36] Although the data is sparse, the sizes of rolls used for Christian texts fall within the normal range of roll sizes used for literary texts of other kinds. Again, the use of such norms testifies to the fact that those responsible for manufacturing them were aware of the tradition for such rolls (and were not aware of any other tradition) and maintained it, although it is also true that they did have to work with the sizes of rolls which were manufactured and offered for sale. Thus, the available data is consistent with the conclusion drawn above with regard to codices, that ***there is nothing obviously different about the size of rolls with Christian OT texts when compared with the size of rolls for other texts***.

iii. Sheets

It might be suggested that a single wooden tablet (**255**) should be included here, but this is clearly not in the same category as papyrus or parchment sheets due to its

[36] Cf. Johnson, *Bookrolls*, 141-43, 213-16 (Table 3.6).

material, and will necessarily stand on its own. Apart from this, most of the MSS that were certainly 'sheets' are of unknown original dimensions. Thirteen of the sheets are papyrus, except **321** (parchment). Of these the only ones with known dimensions (given their state of preservation) vary between 12.7-20.9cm in breadth and 21.2-23.5cm in height. The sole exception is **84** whose small format is 10.5x11.3cm. These fit within the range of dimensions of papyrus or parchment codices, probably due to the likelihood that when papyrus was not sold in rolls it was sold in sheets – which could be used for sheets or codices. It is hard to draw definite conclusions about whether such sheets fitted within any norms, except in general terms, because sheets were made to order for a variety of purposes. However, it is worthy of note that three (**3+536**, **84**, **263-1+698-2**) possess the common rectangular dimensions of codices, and only **195** is rectangular but with breadth (14.7cm) much greater than height (6cm) – an atypical format for an unusual amulet.[37]

b. *Group B*

i. Codices

If we examine the papyrus codices in Group B according to their breadth, only three (**347** Pl. 24, **359** Pl. 36, **558**) are miniature codices with breadth of 10cm or less. Of the remainder, eight have breadth 10.1-11.5cm, twenty-two have 12-13.5cm, twenty-six have 14-15.5cm, seven have 16-17.5cm, four have 18-19.5cm, and five have 20-26cm. Thus, as with papyrus codices in Group A, only a small number of them are miniature in size (10cm or less) or quite large (at least 20cm) in breadth. All the rest fit within the normal range for papyrus codices in the centuries under review, in Turner's Groups 3-10, although again with a considerably greater proportion in the lower half of the range (10.1-15.5cm, 56 MSS) than the higher (16-20cm, 16 MSS). The same conclusions follow as for Group A: the makers of these codices followed the norms for papyrus codices, and thus showed an awareness of and commitment to the tradition, and no awareness of an alternative. There is some latitude in how large the breadth might be, but no more than the normal variation exhibited in the wider range of Roman papyrus codices. Only a very few MSS (**422**, **492**, **562**?, **473-1**) have a height of 30cm or more.

[37] Cf. J. Henner, H. Förster, U. Horak, *Christliches mit Feder und Faden* (*Nilus* 3; Vienna: Dworak, 1999) 48-49.

As for parchment codices, again almost all have start-dates in IV AD, and for the MSS with ascertainable dimensions, four are miniature codices (breadth 10cm or less), six have breadth 10.1-11.5cm, six have 12-13.5cm, four have 14-15.5cm, two have 16-17.5cm, and there are two with a breadth of 20cm or more. The picture is similar to that for parchment codices in Group A (OT), again with a small number of miniature codices and MSS with breadth 20cm or greater, but the bulk falling into the 10-20cm range and the majority in the lower half of that range. I also mention here the two MSS from Group A (**15-1**, **30-1**) that include the NT as well as the OT.

ii. Rolls

Of the four rolls in Group B, all are on papyrus, one from II AD and three from III AD. No MS lengths are available, but heights vary from 25cm to 30cm. These measurements fit into a typical pattern for this period.

iii. Sheets

Three MSS (**345**, **482**, **490**) are certainly sheets, **563+3** is either a sheet or a roll, and **474** is either a sheet or a codex. Of the three certain sheets, breadths vary from 13.8cm to 20cm and height from 17.7cm to 35cm. Given the special nature of sheets, there is nothing worthy of note here.

c. *Group C*

Of the papyrus codices of known breadth, there is one miniature codex (breadth 10cm or less), three of breadth 12-13.5cm, five of 14-15.5cm, two of 16-17.5cm, and three of breadth 18-19.5cm. Aside from the miniature codex, heights vary from 15.5cm to 28cm, without anything unusual apparent. Of the parchment codices, four are miniature codices, one has breadth 11-12.5cm, one has 13-14.5cm, and one is just greater than 20cm in breadth. Apart from the miniature codices, heights vary from 12.5cm to 20.5cm. The same comments apply here as for papyrus codices. Of the rolls (and/or sheets) all are papyrus, and only one (**593**) has a minimum height available (> 24.1cm), so there is little to be observed about the sizes of these papyri.

d. *Group D*

Of the papyrus codices with definite dimensions available, there are three with breadth 10.1-11.5cm, five are 12-13.5cm, eight are 14-15.5cm, six are 16-17.5cm,

three are 18-19.5cm, and two are 20cm or more. Except that there are no miniature codices, the pattern observable above is repeated here, although with smaller numbers. Heights vary in general from 14cm to 28cm, but there are four MSS (**636**, **683-1**, **666-1**, **664-1**) with height of 30cm or greater, thus showing a set of tall MSS in this Group. However, none of the sizes here is without parallel, although they vary a little from the patterns observable in Groups A-C above. The parchment codices include two miniatures (**642**, **659**), **631-2** with breadth 16.5cm, and **664** with 20cm. The height of **631-2** is at least 28cm, another tall codex (breadth 16.5cm). Of the rolls only two have approximate lengths that are able to be reconstructed: 1.0m (**694-1**), 1.9m (**672**). However, heights vary from 15cm to 30cm, dimensions that are not unusual for rolls in II–IV AD.

e. *Group E*

The dimensions of **715-2** in this Group (breadth >10.7cm, height 10cm) are difficult to integrate into our analysis, since it is uncertain if this MS was a sheet or not; and those of **704-1** (possibly a roll) are unknown. The two codices (**710**, **710-1**), both from IV AD, have breadths 14.5cm and 18-19cm, and heights 15.5cm and 27-28cm respectively. There is nothing unusual here, except that the second is a tall codex. **715-2** is broader than it is high; this is not remarkable if it is a sheet since, as we will see for Group F below, sheets may be of quite irregular formats compared to the dimensions of rolls or codices.

f. *Group F*

No firm conclusions can be drawn about the size of the four sheets/codices or the one MS that was either a roll or a sheet; but the one wooden tablet measured 9.8x23.8cm, which is a tall tablet not unlike a number of the tall papyrus codices. The eight certain codices all come from IV AD, one of which (**1037-4**) is parchment: breadth 10.5cm, height 12.5cm. The remaining seven papyrus codices include one miniature codex (**728**), with the others having the following breadths: one of 10cm (**862**+**863+864**), **879** of 16cm, and **921** of 16.8cm. The breadth of **892-6** is unknown. The heights vary from 12.5cm to 19cm, and one is 28cm. The three rolls are of unknown dimensions.

There are a large number of sheets with very small dimensions in this Group. Five have a breadth of 3.5-6cm, nine of 7.5-10cm, four of 10.5-15cm, four of 15.5-20cm,

and three greater than 30cm. Three have heights of 4.5-6cm, seven of 6.5-10cm, ten of 10.5-15cm, five of 15.5-20cm, and three greater than 26cm. Presumably, the small sheets were used because many of them were amulets. It is significant to note that **1034-1** is much broader than it is high, as are **739**, **849**, **895**, **902**, **914**, **918**, **951**, **952**, **955** and **967**. However, this variation from the normal 'page-like' format, i.e. with breadth greater than height, may be accounted for by the fact that amulets and the like did not have the same parameters for layout as codices or rolls did, and were much more informally produced.

g. *Group G*

Of the definite codices in this group, five are papyri and one (**1066-1**) is parchment. Of the papyrus MSS two are from III AD and four from IV AD. Only two have dimensions available, **1066-2** being a miniature codex (2.8x4.2cm) and **1071** measuring 15x26.5cm. The rolls have no dimensions available. The two wooden tablets measure 5x8.2cm (**1066-5**) and 9x31cm (**1066-6**), the latter being quite tall. Of the two papyrus sheets, **1067** has typical codex dimensions (14.3x23.5cm), whereas **1066-3** is unusual in this respect, with breadth greater than height (7.4x4.6cm). This last MS should be noted for comparison in other features in this study, and its possible non-professional production considered, as with the sheets in Group F above.

h. *Group H*

The two codices in this group (**1073**, **1074+580**) are both papyrus, with breadths varying from 9.5cm to 13cm and heights from 24.5cm to 27cm; measurements for **1074+580** contain some deviation. As for the rolls, their lengths vary from more than 2m up to 3.6m, and heights vary from 22cm to 33.5cm. The sheets have breadths 7.4cm, 20.7cm, 30.6cm, and greater than 30cm, with heights (in respective order) 19.6cm, 7cm, 18.9cm and 25cm. A noticeable aspect here again is that three sheets (**1078**, **1079-2** Pl. 11, **1081**) are wider than they are high, something that might have been becoming quite typical for magical texts. It will be useful to examine other traits of these MSS with regard to the professionalism of their production. It may be thought that these magical texts had at least subliminal links with the amulets included in Group F, and that this would explain why they also have greater breadth than height; but this is far from certain, and is probably the result of reading back into antiquity a

modern labelling of MSS as ‘magical’ including magical ‘texts’ and amulets that were seen as having a ‘magical’ effect.

i. *Group I*

The variety of texts in this Group means that they will not play a significant part in our discussion, *a fortiori* since little is known about their original dimensions. Of the codices only two are parchment, **1121** of unknown original dimensions (see Pl. 16) and **1083+323** a miniature codex. Of the papyrus codices, **1147** appears to have been a miniature codex; and discernible original breadths of the rest vary between 16.5 and 19.5cm, heights varying between 21 and 28.5cm (the latter, **1126-3**, a rather tall codex). None of these is unique or even unusual for codices of the Roman era. **1125** may have been a codex; and **1130** was either a codex or a roll, and **1139** either a codex or a sheet. It is impossible to determine the original form of four MSS (hence ‘fragments’) (**1126-6**, **1131**, **1135-1**, **1157**), and for none of these are the original dimensions available. All thirteen certain rolls are papyrus, with unknown lengths but with heights varying between 25cm and 30cm; and **1145** is greater than 23.5cm in height (see Pl. 18). There is nothing out of the ordinary here. Of the certain sheets, **1177** is parchment and the other five are papyrus. The only three whose dimensions are able to be determined have breadths varying between 7.5cm and 12.5cm and heights between 10cm and > 13.5cm. The small size of **1177** (7.5x10cm) should cause no surprise, since the dimensions of sheets do not seem to be governed by the same conventions as codices and rolls were.

j. *Group J*

The two MSS in this group are now lost, and there is a lack of information about them. Apparently both were sheets, but it is impossible to reconstruct their original dimensions.

k. *‘Miniature’ codices*

At this stage of the present section concerning the size of MSS, although ‘miniature’ codices have been noted briefly at various points above (§4.7a-d, f-g, i), it will be helpful to discuss them specifically, since there is a significant number of them in proportion to all the codices in my database. They could not have contained extensive amounts of text due to their size, and presumably were intended for private use, given

the small amount of text and (often) the tiny size of the writing (2mm or less in height). The subject of letter height will be discussed in Ch. 6 (§6.9). All the miniature codices which occur in my database are listed below with an indication of their contents but without any conjecture as to more extensive contents, since it is often impossible to know how much more was included in the codex; and it is highly unlikely that a whole book was included, given the large size of the work and the small size of the codex. The criteria for designating a codex 'miniature' may differ; for example, **494** (14-15cm breadth, 18-20cm height) has been called a 'Miniaturcodex,'[38] but would not fit Turner's criteria for papyrus Group 11 or parchment Group XIV.[39] However, I will follow Turner's criterion for a miniature codex of a page size with breadth of 10cm or less.[40] Plates are indicated below.

The miniature codices are as follows: **31** (Exod 4.4-6), **32** (Exod 5.14-16, 6.22-25, 7.15-17), **41** (Exod 34.18-20), **61** (Josh 4.23-24, 5.1), **82** (Tob 12.14-19), **90** (Psa 1.4-6), **92** (Psa 2.3-12), **136** (Psa 32.9-15, + alphabet + Coptic text + mathematical exercise), **148-1** (Psa 43.21-24, 27, 44.1-2), **179** (Psa 81.1-4, 82.4-9, 16, 17), **180** (Psa 82.6-19, 83.2-4), **270** (Song of Songs 5.13-6.4), **280-1** (Sir 26.1-2, 5-7, 27.29-30, 28.1-8), **280-2** (Sir 29.13-26), **289** (Jonah 1.10-4.10a), **291** (Zech 12.10-11, 13.3-5), **347** (Matt 6.10-13; Pl. 24), **359** (Matt 11.25-30, Dan 3.51-55; Pl. 36), **397** (Mark 15.20-21, 26-27, 29-37), **494** (Rom 2.21-23, 3.8-9, 23-25, 27-30), **509-1** (1 Cor 15.10-15, 19-25), **545** (Jas 1.25-27), **551** (1 Peter 5.5-13), **555** (2 John 1-5, 6-9), **558** (Jude 4-5, 7-8), **561** (Rev 3.19-4.2, Pl. 27), **565-1** (Rev 11.15-16, 17-18), **574** (6 Ezra 16.57-59), **585** (unknown Gospel),[41] **598-1** (*Gos. Pet.* – frag.; Pl. 9), **603** (*Acts Pet.*), **610** (*Acts Paul Thecla* 2-3), **642** (*Did.* 1.3b-41, 2.1b-3.2a), **659** (Hermas, *Mand.* 9.2.4), **728** (acrostic hymn), **1066-2** (Manichaean prayer of praise) and **1147** (Christian text alluding to Luke 6.45-46 and 7.29-31). Also **323+1083** (OT text and a homily) is in the form of a minature codex. While not a codex but either a sheet or a roll, **739** was of miniature size and contained an imprecation against Philadelphe and

[38] H. Froschauer, C. Gastgeber, H. Harraurer (eds), *Ein Buch verändert die Welt* (Vienna: Phoibos, 2003) pl. 5 (*P.Vindob.* G 36113).
[39] Perhaps this is due to different reconstructions of the original size.
[40] Turner, *Typology*, 22, 29.
[41] M.J. Kruger, '*P.Oxy.* 840: amulet or miniature codex?,' *JTS* 53 (2002) 81-94 concludes that **585** was made as a miniature codex, but this does not preclude it (or part of it) being used as an amulet at a later time. This certainly seems to be correct, even though, as he notes, the two categories are distinct in theory. Cf. id., *The Gospel of the Saviour. An analysis of P.Oxy. 840 and its place in the Gospel traditions of Early Christianity* (Leiden: Brill, 2005) 23-40.

her children. We have noted above (§3.3h.i) that the *Life of Mani* miniature codex (V AD) falls outside the time frame of this thesis.

The frequency of their occurrence is presented in Fig. 4.16 below, with total numbers of miniature codices for each Group and start-date given in brackets in the right hand column and in the bottom row. The number of definite codices in each Group is given in brackets so it may be seen at a glance what proportion of codices were 'miniature,' omitting Groups E, H and J which lack any such codices. There are no miniature codices prior to II AD. A dash indicates that there are no definite codices in that Group with a start-date in that century.

Figure 4.16 **Numbers of miniature codices**

	II AD	*III*	*IV*	*Total*
Group A	1 (13)	2 (40)	14 (67)	17 (120)
Group B	0 (9)	3 (49)	8 (49)	11 (107)
Group C	1 (3)	1 (8)	3 (21)	4 (32)
Group D	0 (1)	0 (18)	2 (23)	2 (42)
Group F	-	-	1 (8)	1 (8)
Group G	-	-	1 (4)	1 (6)
Group I	-	1 (8)	1 (10)	2 (18)
Total	2 (26)	7 (125)	30 (186)	38 (337)
Percentage	76.9%	5.6%	16.1%	11.3%

Judging from their occurrence, it certainly seems that miniature codices were becoming more popular from IV AD. We will examine below in the remainder of Chs 4-7 whether less care was taken with their production: handwriting and other features consistent with their having been copied by non-professional writers rather than trained scribes.[42]

For the moment we may suggest that miniature codices *might* be thought to be more likely to be produced by writers who were not professional scribes, due to their probable use in private, individual settings rather than group settings. However, any conclusion here will depend on examining a range of other factors, many of these dependent on such matters as the social status and relative wealth of the person having such a codex or roll made. ***The small size of miniature codices cannot in itself be used as a criterion to decide on the professionalism of their manufacture.***

[42] For a useful discussion of miniature codices see Kruger, *Gospel of the Saviour*, 31-34.

l. *Conclusion*

From my analysis above, ***Christian codices and rolls were not unparalleled in size to other codices or rolls in contemporaneous use in the vast majority of cases***, although a small number of codices were of unusual dimensions, mostly with breadth greater than height. Apparently, then, even non-professional writers followed the traditions of roll or codex manufacture, presumably due in part to the availability of certain sizes of writing materials. However, there are three qualifications to be made.

First, miniature codices became popular, particularly from IV AD – the number of extant miniature codices increases and the proportion of miniature codices to other codices rises significantly from III to IV AD (5.6% - 16.1%). It appears that there was an increasing demand for copies of the scriptures (especially the NT) in miniature form during the centuries which are the subject of my investigation. However, there is no correlation between their small size and the level of professionalism involved in their reproduction.

Second, in the normal range of breadths of MSS (each with a normal range of heights) Christian MSS tend to be somewhat smaller, that is, in the lower half of the range of MSS as a whole. The explanation for this is not clear, but it may well have been for practical reasons (such as easier storage or portability of smaller volumes), and would seem to have little bearing on the professionalism with which MSS were copied.

Third, the use of 'standard' sizes for Christian codices implies that such sizes were already in existence. This would seem to be at odds with the prevailing view that Christians were responsible for the popularisation of the codex for sub-literary texts. Perhaps the explanation of this seeming anomaly is that standard sizes of papyrus or parchment were used. It has also been mooted that the role assigned to Christians in popularising the codex is not as securely founded as has been thought;[43] but this suggestion came to my attention too late to be more than noted here.

[43] Bagnall, *Early Christian Books*, 86 makes this deduction, at least for the period up until early IV AD.

4.8 **Sides used**

Generally, a roll received a text only on one side, that is the recto (with the fibres horizontal for papyrus, and perhaps the flesh side for parchment), while a codex normally had writing on both sides of the leaves. However, some previously-used rolls or pages from a codex were reused for Christian texts (cf. Ch. 2, §2.3f.ix above). This has significance for our study of the professionalism of the final product, because reusing a roll, codex or sheet may indicate a more *ad hoc* production consistent with a lack of professionalism.

a. *Reuse of a documentary papyrus for a Christian text*

Some MSS have a document on the recto, and a Christian text on the verso; presumably a documentary roll has been cut up and reused for another writing purpose. We may not know the time lag between the original text being written and its reuse for a Christian text, but the first papyrus or parchment must have been kept sufficiently undamaged and been available for reuse. Hence, the interval between the two texts being written is not likely to have been lengthy. The MSS in my database are as follows:

i. A Christian copy of Deuteronomy (**55**, IV AD) has been written on the verso, with the codex made from a documentary roll of AD 293/4.[44] Along with the following item, this seems to show a preference for the codex form, despite the inconvenience of every second page being unusable for the text being copied.
ii. A documentary roll of AD 302 has been reused to make a codex with a Psalm text (**112-2**), while a document of AD 338 has been reused for a Psalm roll (**133**).
iii. A documentary roll of AD 133/4 was used for a roll (or sheet) of Psalm 77 (**174**).
iv. A sheet with a document on the recto has Psalm 148.7-8 (**239-2**) on the verso.
v. A documentary sheet (or roll) has parts of Job (**275**) on the verso.
vi. A roll containing a land register from c. AD 200 has had a Greek-Coptic glossary of Hosea (**286**) written on the verso.
vii. A papyrus document has part of Revelation (**559-1**) on the verso (see Pl. 8).
viii. A document has a possibly apocryphal Gospel (**587-1**) on the verso.
ix. A land survey list has the Gospel of Thomas (**593**) on the verso.
x. A papyrus document from AD 175-200 has part of Hermas (**657**) on the verso.

[44] On the documentary text see R.S. Bagnall, 'A Prefect's edict mentioning sacrifice,' *ARG* 2 (2000) 77-86.

xi. A documentary roll has been reused for a homily (**693**) in a codex.

xii. The verso of a document has been used for a liturgical text (**891**).

xiii. A roll with a corn account has a hymn to the Trinity (**962**) on the 'verso.'[45]

xiv. An *epikrisis* return has a eulogy for Christian martyrs (**1037-5**) on the verso.

xv. A Greek and Demotic Christian text (**1079**) occurs on the verso of a roll with an Egyptian mythical text on the recto.

xvi. The other MSS on my database with documents on the recto and Christian texts on the verso are: **1137** (unidentified text – Christian?), **1145** (homily? Pl. 18), **1150-2** (congregational homily or letter), **1158** (Christian *onomasticum sacrum*) and **1178** (Christian sentences).

These MSS will be of note for our study, since reuse of a roll or codex may imply that the writer did not have (or could not or did not wish to obtain) a new piece of material to write on, but made do with a second-hand one, which in turn might imply that the quality of the production was of a 'lower' standard.

b. *Reuse of a literary papyrus for a Christian text (and vice versa)*

Some MSS have a classical literary work on one side and a Christian one on the reverse, suggesting the reuse of a work for another purpose.

i. On the verso of a leaf containing parts of Matthew's Gospel in Greek (**353**) a Coptic text has been added at a much later time, but this subsequent use is not relevant for our purposes.

ii. **672** has some of Irenaeus, *adv. Haer.* on the recto, and some of Irenaeus and a mythological text on the verso (**1141-1**); but it is not clear whether an Irenaeus text has been reused by another text being included on a roll, or whether this was done by design in the first place. Even if the latter were the case, this, too, is not pertinent to our study.

iii. A papyrus with Psa 11.7-14.4 on the recto (**109**) has parts of Isocrates, *ad Demonicum* on the verso. Whether the person responsible for having the Isocrates text written was a Christian or not, this is probably an example of a no-longer-needed roll (or codex or sheet) being reused for a literary text, just as we noted

[45] The editor of *P.Oxy.* 15.1786, A.S. Hunt, used the term 'verso' on the assumption that the corn account was earlier, even though the hymn is written parallel to the fibres (which we might more properly call the 'recto'). He was probably correct, even though that would mean that the corn account was written across the fibres.

above that MSS containing documents could be reused for Christian texts. Alternatively, it may show an interest in Isocrates on the part of some Christian.

iv. Some of the *Sententiae* of Sextus Pythagoricus (**698-2**) appear on the verso of a codex containing some OT texts (**263-1**), again perhaps showing the Christian interest in that writer's work or else reuse of an unwanted text. If the verso is a palimpsest,[46] this would seem to be a case of two different stages of reuse.

v. One MS contains an epitome of Livy on the recto and parts of Hebrews (**537**) on the verso.

vi. A papyrus roll with the Apocryphon of Jannes and Jambres (**584-1**, Pl. 31) has been written on the verso of a New Comedy fragment, here also implying reuse of an unneeded literary roll.

vii. A Hermetic text (van Haelst No. 1068) has part of the book of Jannes and Jambres on the verso (**1069**), although whether this implies reuse or not is unclear.

viii. A papyrus of Xenophon, *Cyropaedia* has a homily on parts of Exodus on the verso (**1149-1**), again implying reuse of unneeded papyrus.

In these cases, too, the use of a previous text – in this case a literary text – implies that other writing material was either not available or not sought for some reason, and thus also the Christian text is likely to be a lower quality production.

c. *Reuse of a Jewish or Christian papyrus for a documentary text*

Some MSS containing Jewish or Christian texts on the recto have been reused for documentary texts.

i. A Jewish roll containing Deuteronomy (**57 J**) has apparently been reused for a document of 116/5BC, although it is just possible that the Deuteronomy text was written second (but with the fibres).

ii. A Psalms MS (**181**) was apparently reused for a document on the verso.

iii. A MS of the Sybilline Oracles (**581**) has a document on the verso.

iv. A papyrus containing a work by Julius Africanus (**674**) has been reused on the verso for a will.

[46] See §4.8e below. Thus, the MS would be a palimpsest with an OT text as the upper-writing on the recto (with an unidentified under-writing), and the verso with some sentences from Sextus.

These MSS are notable in that they show that some people, whether Jewish/Christian or not, felt no difficulty about reusing MSS containing such religious texts for their own purposes. Yet for the purposes of this study this reuse lacks any easily seen significance as far as the professionalism of the Jewish or Christian texts is concerned – subsequent reuse is not of relevance to this study.

d. *Writing on a papyrus with second text upside down with respect to the first*

When a roll or leaf from a codex was reused for another text on the verso, the second text is sometimes copied upside down with respect to the first one. This is of interest, but not of great significance since it would not matter which way the original text was, if the MS was turned over for reuse. For the sake of completeness I list here examples of this phenomenon in the MSS on my database.

i. **674** has a document on the verso, but this is not significant for such reuse.
ii. **891** is on the verso of a document, but again this should not occasion surprise, although the reuse of the papyrus is notable and would be consistent with a lack of professionalism in the writing.
iii. However, what is more interesting is that **892-6**, **892-8**, **948-3** and **949-2** are used on both sides for the one text (or group of texts), but the writing on one side is upside down with respect to the other. This is quite unusual, and certainly adds to an impression of *ad hoc* production.

e. *Palimpsest MSS*

The special case of palimpsest MSS appears in our database and deserves some comment.

i. **268** and **77-1** have been written over with Arabic texts at a later time, but this is not germane for our purposes.
ii. A Manichean text, *The Acts of John* (**604-1**), has a text in Syriac written over it as the upper text.

More important are the following:

iii. In **263-1** the upper text is a medley of OT verses, although it is disputed whether this MS is a palimpsest,[47] and another text (by Sextus Pythagoricus) (**698-2**) is on the verso.

iv. A parchment MS has **323** (Bel and the Dragon) written over the primary text (**1083**, a homily, together with another text), although there is not a consensus that this is exactly what occurred.[48] It is noteworthy that one Christian text was discarded in favour of a preferred (Christian) text.

v. The miniature codex **659** has its upper text (Hermas) written over another text (or pages from another codex).

vi. The primary text (a title on three lines) of a leaf has been scraped and erased, and a hymn(?) (**681**) written over it.

vii. The writing on the wooden tablet **918-4**, which is probably an amulet against illness, was washed off before being reused for this purpose.

viii. A Gnostic invocation (**1067**) has been written over another text on an isolated leaf.

Thus, some MSS (**263-1**?, **323**, **659**, **681**, **918-4** and **1067**) were written by reusing papyrus, parchment or wood, which had the original writing erased. This may well imply a lower level of professionalism, since pre-existing material was used rather than new material.

f. *Implications*

The fact that a Christian (or Jewish) text has been written on a previously-used piece of papyrus or parchment, perhaps on the verso or perhaps as a palimpsest with the first writing washed off, may well be an indicator that the mode of preparation of the MS was not professionally done, but rather with whatever materials were to hand, as suggested in Ch. 2 (§2.3f.ix). Even if the writer was a professional scribe, the 'secondhand' nature of the writing surface may also have had an effect on the quality of the written product, since the scribe was working with 'used' materials. So, as we continue with our examination of the MSS in my database in Chs 5-7, these MSS will be prominent among those which should be considered as *possibly* not produced by a professional scribe. It should be noted, however, that other factors, especially

[47] Aland, Rosenbaum, *Repertorium* II/1, 572-74. However, Rahlfs, Fraenkel, *Verzeichnis*, 15-16, describe the upper and lower texts. Cf. §4.8b above.
[48] Cf. Rahlfs, Fraenkel, *Verzeichnis*, 278.

handwriting, would override this in a decision about professionalism, since a trained scribe may simply have been doing work 'on the side,' neither he nor the commissioner especially caring about reusing a papyrus. Those MSS which were reused for another purpose later on (after IV AD) need not be noted here, since it is the original Christian or Jewish text that is in view in this study. Hence, the MSS to be noted here are given in Fig. 4.17 below, with Groups E and J omitted since they have no representative MSS.

Figure 4.17 **MSS written on a previously-used writing surface**

	II AD	*III*	*IV*
Group A	**174**	**275**, **286**	**55**, **112-2**, **133**, **239-2**, **263-1**?, **323**
Group B	**559-1** (Pl. 8)		**537**
Group C		**587-1**, **593**	**584-1** (Pl. 31)
Group D	**657**	**681**	**659, 693**, **698-2**
Group F		**962**, **1037-5**	**891**, **892-6**, **892-8**, **918-4**, **948-3**, **949-2**
Group G		**1069**	**1067**
Group H			**1079**
Group I	**1150-2**	**1137**, **1145** (Pl. 18), **1158**, **1178**	**1149-1**

4.9 **Conclusion**

This chapter has examined the content, specific physical features and handwriting of the MSS in our database, and endeavoured to locate any possible indicators of their having been produced by a non-professional writer rather than a trained scribe. In §4.1 we examined the contents of the MSS for various features, and suggested that less professional production might be evident in the MSS with a pastiche of short quotations (**3+536**, **20**, **91-1** Pl. 29, **195**, **220**, **299**, **323+1083**, **345**, **627**, **682**, **1150-2**, **1151**, **1159**), those with texts used as oracles (**441**, **1076**), amulets etc. from Group F (especially **721**, **733-2**, **739**, **849**, **892-2**, **893**, **902**, **911 J**, **912-1**, **918-3**, **918-4**, **948**, **949**, **951**, **952**, **953**, **955**, **967**, **968**, **971**, **996-1 J**, **1050**, **1066-5**, **1079-2** Pl. 11), and school texts (**136**, **205**, **239**, **511**). However, those MSS with liturgical and hymnic material may also contain a variety of levels of professionalism in their production, depending on the setting for which they were copied. MSS in Group I are also likely to show a diversity of levels of professionalism, since they are from an assortment of (unidentified) texts. It is not clear that all Gnostic or Manichaean works would have been written with a higher or lower level of professionalism. In §4.2 we noted the MSS with Coptic glosses (**284**, **286**, **293**, **636**, **693**, **921**), and suggested that they may show less professionalism, if the need for such glosses or translations indicated that Greek was less well understood in the context in which they were written. The

number of writers contributing to any single roll or codex was discussed in §4.3. Since it was usual for one writer to copy a whole work unless it was extensive, this implies that in general work was not done piecemeal.

The handwriting of a MS (see §4.4) is a highly significant indicator of the level of professionalism involved in its production; and I have classified the MSS into Categories according to the level of professionalism of the hand. Those MSS which have been written by non-professional writers (Categories 3 / 3^{+}) and by less professional scribes (Category 2^{-}) were listed in Fig. 4.9. It would be natural to ask if the quality of the writing surface used (§4.5b) correlates with the professionalism of the whole written product; so Fig. 4.13 lists those MSS with lower levels of quality in that respect, as far as that can be ascertained. With respect to the 'book' form of the MSS (§4.6), those MSS that were sheets or wooden tablets are more likely to have been written with less professionalism; Fig. 4.15 lists those MSS. A study of the original (book) size of the MSS (§4.7) did not yield any firm result as far as the professionalism of the product is concerned, so that the size of miniature codices does not in itself indicate non-professional production, despite the probable private use for which they were written. However, some aspects of the size of MSS are important for this study. Thus, **1177** is very small, and some codices are unusual in having their breadth greater than their height (**195**, **715-2**, **1066-3**), as also are the sheets in Group F (**739**, **849**, **895**, **902**, **914**, **918**, **951**, **952**, **955**, **967**, **1034-1**) and Group H (**1078**, **1079-2**, **1081**). A survey of MSS which show the reuse of previously-used papyrus or parchment (see §4.8) brought to light a number of such MSS, which are listed in Fig. 4.17. These also are likely to have been written with less professionalism.

The MSS which show non-professional production or a lower level of professionalism in their handwriting (Fig. 4.9) were compared with those listed in Figs 4.13, 4.15 and 4.17, with the first of these being used as the base list. It should be noted that in a few cases where MSS have been lost or it has proved impossible to locate a plate or image, it has not been feasible to assign them to Categories of hands. In these cases, they do not appear in §4.4, but it may be that other features of those MSS will indicate the level of professionalism involved in their production. Fig. 4.18 below provides an interim setting-out of those MSS which appear so far to have been written by non-professional writers (Categories 3 / 3^{+}) or less professional scribes (Category 2^{-}). In

this Figure ***a Code number in red type reflects my judgment that non-professional production of a MS on the basis of handwriting (in Fig. 4.9) is confirmed by other factors***, since that MS occurs in at least one of Figs 4.13, 4.15, 4.17 as well as in the base list (Fig. 4.9). Further, those MSS mentioned in the first paragraph of this present section (§4.9) have been used to confirm the list in Fig. 4.9. **1081** is now in Category 2^{-}.

Figure 4.18 **MSS in Categories 3 / 3^{+} and Category 2^{-} of handwriting quality (confirmed by features examined in Ch. 4)**

	3	*3⁺*	*2⁻*
		Group A	
II AD			**118** (*m.*1)
III			**4**, **7**, **30**, **44** (Pl. 20), **62**, **77-1**, **81-1**, **263**, **269**, **273-2**, **286**
IV	**87-2**, **136**, **205**, **220**, **239**, **255**	**132-1**, **134-1** (Pl. 33), **246-1**, **308** (Pl. 34)	**3**, **90**, **133**, **138**, **143**, **170-1**, **195**, **239-2**, **263-1**
		Group B	
II AD			**559-1** (Pl. 8)
III	**347** (Pl. 24), **548**, **557**, **559**	**441**, **522**, **537**, **558**	**380**, **430-1**, **444**, **459**, **461-1**, **467-1**, **488**, **521-1**, **536**, **547**
IV	**345**, **359** (Pl. 36), **482**, **490**, **539**, **554**	**378**, **511**, **562**	**342-1**, **451**, **538-1**
		Group C	
II AD			**581**, **592**, **594**, **598-1** (Pl. 9)
III	**569**		**587-1**, **589**, **593**, **611**
IV			**578**, **579**, **580**, **584-1** (Pl. 32), **584-2** (Pl. 32), **584-3**, **585**, **604**
		Group D	
II AD		**657**	
III		**672**, **682**	**624**, **695**, **700**
IV	**667**	**658-1**, **677**, **693**	**626**, **648**, **648-1**, **654-1**, **661**, **698-2**
		Group E	
IV	**715-2**	**704-1**, **710-1**	
		Group F	
III	**733-2**, **968**, **1035**	**847**	**722** (Pl. 19), **1036**, **1037-5**
IV	**728**, **739**, **849**, **892-7**, **892-8**, **893**, **902**, **914**, **918**, **918-3**, **948**, **949-1**, **953**, **967**, **971**, **996-1 J**, **1050**	**844**, **862**, **863**, **864**, **918-1**, **918-4**, **949-2**, **955**	**895**, **921**, **948-3**, **951**, **1034-1**
		Group G	
III	**1065-1** (Pl. 22)		**1066-6**
IV		**1067**	
		Group H	
II AD	**1079-2** (Pl. 11)		
III			**1077**, **1081**
IV	**1073**, **1078**, **1080**		**1080-1**
		Group I	
III		**1154** (Pl. 21), **1178**	**1141-1**, **1146-3**
IV	**1091**	**1093**, **1126-6**, **1148**, **1150-4**	**1131**, **1147**, **1188-1**

The MSS in Categories 3 / 3^{+}, especially those in red type, will be those which at this stage point to a strong possibility of having been written by a non-professional

writer rather than a trained scribe. The MSS in those Categories but in black type remain on the list, but are not decisively confirmed yet and are subject to further testing.[49] In Chs 5-7 we will examine other aspects of the MSS and attempt to trace any further confirmation of the non-professional production of the MSS listed in Fig. 4.18 above. The MSS in Category 2^{-} will be retained (in black type) in the Figures at the end of Chs 5-7 as a reminder that they are in this 'borderline' Category; and in the Summation of Part B the issue of their status and significance will be discussed.

Finally, it is significant to note that, since only 153 MSS out of 516 (29.7%) are assigned to the non-professional Categories 3 / 3^{+} or lower professional Category 2^{-}, and of these 37 belong to the almost entirely sub-literary category of Group F (amulets and the like), the remainder of the MSS may be presumed, for the moment, to have been written by professional scribes. This amounts to 363 out of 516 MSS (70.3%). If the MSS in Category 2^{-} were not counted into the list of MSS in Fig. 4.18 above, this would yield a total of 80 MSS out of 516 (15.5%) produced by non-professional writers, of which 29 are in Group F. This points to the likelihood, initially at least, that the vast majority of Christian MSS were copied by professional scribes, which is consonant with the observations made in §4.3. The predominant use of common sizes of rolls and codices (cf. §4.7), and the small number of MSS written on previously-used materials (cf. §4.8; contrast Fig. 4.17), only serves to confirm this impression. In Chs 5-7 we will examine how other factors confirm the initial list, and thus substantiate the initial impression of Christian MSS being produced by professional scribes rather than by non-professional writers. It will also be important to trace whether there were any trends towards professional personnel being more involved, or whether the trend was going in the opposite direction – or, indeed, whether there was little change over the centuries (II–IV AD) which are the focus of my thesis.

[49] Other MSS (**121**, **299**, **323+1083**, **627**, **891**, **892-2**, **912-1**, **949**, **952**, **981-1**, **1036-1**, **1066-5**, **1076**, **1081**, **1137**, **1150-2**) did not occur in the original base list (Fig. 4.9), but did appear at least twice in the other lists, and hence should be kept in mind for further investigation.

Chapter 5
PAGE LAYOUT

In this chapter we will examine aspects of the page layout of the MSS in my database, in order to see what bearing these may have on ascertaining or confirming the level of professionalism with which they were produced. There are a number of MSS that are indeterminate as to their original form. Some might have been a roll or a sheet (since one side is blank) (**85-1**, **148**, **174**, **181**, **220**, **227-1**, **319**, **589**, **592**, **593**, **699**, **966**, **739**, **1122**, **1175**), a codex or a sheet (**222-2**, **263-1**, **275**, **474**, **698-2**, **891**, **998**, **1035**, **1036**, **1081-1**, **1139**), or (rarely) a roll or a codex (**301**, **1130**). Others may have been a roll, a sheet or a codex (**20**, **1126-6**, **1131**, **1135-1**, **1157**).[1] Some MSS are listed as a codex, a roll or a sheet as being the most likely possibility; but since this is not completely certain, a question mark has been added in the *Catalogue of MSS* (Vol. 2, App. 1). Due to the uncertain nature of the original form of all these MSS, it is inappropriate to include them in the following discussion, since the original form plays a vital part in discussing their dimensions. To include them would affect the clarity of the conclusions to be drawn from the data gathered about MSS whose original form is clear. For this reason these 33 MSS have been left to one side in the discussion. The following discussion is divided, where appropriate, into the three categories under each heading – roll, codex and sheet.

At the outset, it should be noted that most of the MSS in some Groups in my database are clearly 'literary' in nature, or they appear to have been viewed as 'literary' in some sense by the Christian groups responsible for their reproduction. Here, the term 'literary' does not necessarily indicate texts of the same kind as classical 'literature,' but still serious pieces of writing with some linguistic aspiration rather than documentary texts; yet a few MSS in Groups A-E, G and H, such as the 'school texts,' include excerpts from 'literary' texts but were clearly not copied as whole 'works.' Further, most of the MSS in Group F should not be seen as 'literary' in any sense, and were not copied as continuous literary texts, while those in Group I are presumably varied in their 'literary' level, since they contain unidentified texts; and there is little

[1] On my database, and as in App. 3, Table 1, MSS in this last group are titled 'Fragments.'

known about some features of the two MSS in Group J. All of this should be kept in mind in our discussions in this chapter, since comparisons will be made with the general conventions of MS copying, especially referring to literary rolls and Johnson's work on rolls from Oxyrhynchus (see esp. §5.3). In the concluding Ch. 8 we will discuss the relevance of the analysis in this chapter for the issues under investigation in this study.

5.1 **Column height, upper and lower margin height**

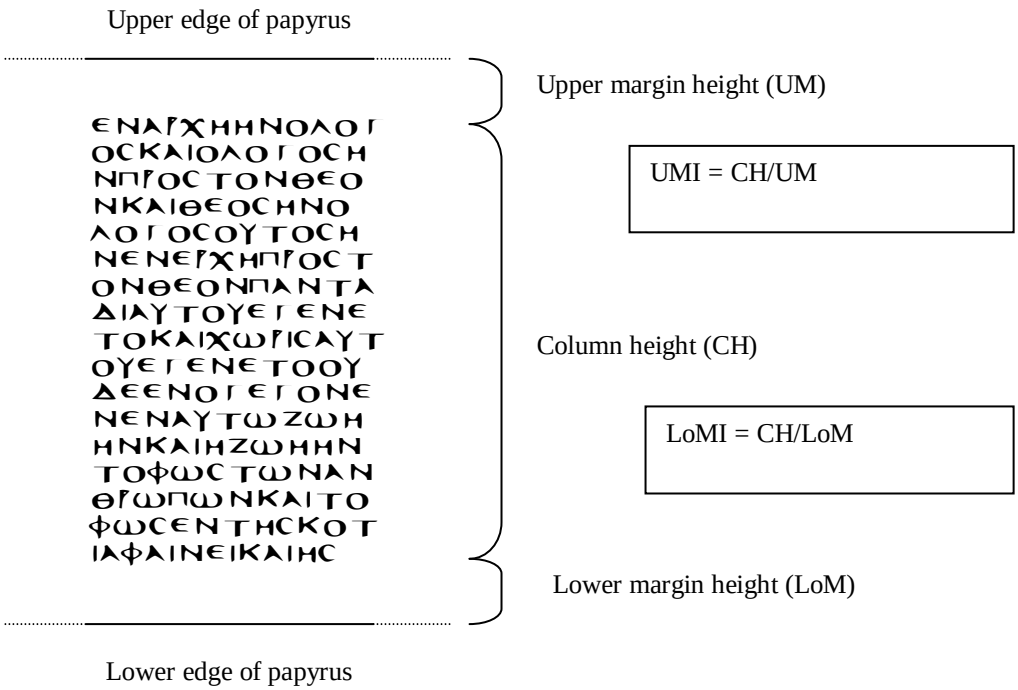
It was suggested in Ch. 2 (§2.3f.viii) that one of the possible signs of a non-professional writer having produced a MS was the use of narrow upper and lower margins. This aspect of the MSS in my database is now analysed below. The details of this data, when these dimensions are known, are included in Vol. 2, App. 3, Tables 5, 6 and 7, where I provide an explanation of the way in which the data was defined and calculated. The following abbreviations have been used in this section, and their meaning will be clarified below:

CH	column height		
UM	upper margin height	UMI	upper margin index
LoM	lower margin height	LoMI	lower margin index

Plurals have been indicated by the addition of an 's', as in CHs or UMs.

Since CH and margin size are both related to the size of the page, where possible I have divided the CH by the size of the UM or LoM, in order to give some indication of the size of the UM and LoM with respect to the CH of writing, and thus to enable us to compare papyri having a standard range of ratios with those whose ratios diverge from that standard range. Thus, the UMI for a MS is calculated by dividing the CH by the UM (CH/UM), and the LoMI is calculated by dividing the CH by the LoM (CH/LoM). See Fig. 5.1 below for a visual explanation of these indices.

Figure 5.1 **Calculating the upper margin index (UMI) and lower margin index (LoMI)**



For literary rolls Turner labelled those with an UM of about 5cm or more and a LoM of about 7cm or more as having 'wide margins and spacious layout,' and gave three examples.[2] If we take two of these examples, *P.Oxy.* 17.2075 (Hesiod, *Catalogue*, III AD) and *P.Oxy.* 18.2161 (Aeschylus, *Diktyoulkoi*, II AD), their UM/LoM are 5cm/7.5cm and 5.5cm/7cm, respectively, with CHs of 13.5cm and 14.7cm. The CHs divided by the UMs are 2.7/2.7 (UMIs), and their CHs divided by the LoMs are 1.8/2.1 (LoMIs) respectively (correct to one decimal place). Another example of a papyrus roll laid out 'spaciously' is *P.Oxy.* 17.2102 (Plato, *Phaedrus*, II AD), where UMI is 4.3 the LoMI 3.1.[3] In contrast, according to my calculations, *BL* Pap. 131v (Aristotle, *Constitution of Athens*, I AD; see Pl. 1) has narrower margins and thus higher scores of 21.5 (UMI) and 19.1 (LoMI). A comparable example in the case of codices is *Codex Vaticanus* (**30-1**), where the UMI is 3.8-5.0 and LoMI is 3.7-4.2, well towards the lower range, and so with 'spacious layout,' but within normal limits.

Thus, if we take these MSS as anywhere near representative, if the UMI is around 3.0 or lower, the layout may be taken as 'spacious,' but within the normal range for

[2] Turner, *GMAW*, 16 and Nos 11 (*P.Oxy.* 17.2075), 15 (*P.Oxy.* 24.2387, frags 1, 3; Alcman, *Partheneia*, I BC / 1 AD) and 24 (*P.Oxy.* 18.2161).
[3] See Johnson, *Bookrolls*, pl. 9.

literary rolls (and codices will not be too different in this respect); but if the UMI score rises to be anywhere around 20.0 or above then the margins may be taken to be narrow and somewhat abnormal for literary texts. It also follows that if the LoMI is around 2.0 or lower the layout can be called 'spacious,' but if it rises to anywhere near 20.0 or higher it should be taken as having quite narrow margins and is then (for a literary papyrus) idiosyncratic. Results in between these outer limits for both ratios may be taken as normal, especially in the middle of the range, about 5.0-15.0 for both UMI and LoMI. Papyri with extremely low results (below c. 3.0 for UMI and 2.0 for LoMI) must be viewed as having a very spacious layout.

It should be noted that, when there is a variation in CH, UM or LoM, this has been reflected in calculating the UMI and LoMI. Where there is a variation of both CH *and* UM or both CH *and* LoM, it is reasonable to assume that, given a constant roll or page height, the smaller CH will go with the larger UM and LoM, and the larger CH will go with the smaller UM and LoM; and the calculations have been made accordingly. When the size of the UM is known, it might be thought that the size of the LoM should be either comparable or larger. This may be so in general in the case of continuous texts of a literary nature, especially in codices; but it is not true for all genres, and should not be used as a basis on which to make calculations, especially in the case of sheets.

a. *Rolls*

Based on his study of the Oxyrhynchus literary rolls Johnson suggests that there are 'three broad classes' of CH, as follows (Fig. 5.2).[4]

Figure 5.2 **Classes of column height (Johnson, *Bookrolls*)**

Class I	<16cm	Common especially in verse texts, and in finely copied prose MSS of II AD
Class II	16-21cm	Common in all periods (I BC – IV AD)
Class III	>21cm	Popular for less finely copied prose MSS of II and (especially) III AD

In the following discussion Classes I, II and III will refer to these Classes established by Johnson. His sample of MSS from Oxyrhynchus range from I BC to IV AD, but his comparison set of MSS reaches back to III BC. He also suggests that the usual ranges were 3-4cm for the UM and 3-5cm for the LoM, but in 'finely written' rolls the UM could be 4-6cm and the LoM 5-7cm.[5] For verse texts such as plays the UM could

[4] Johnson, *Bookrolls*, 124. Cf. Hurtado, *Earliest Christian Artifacts*, 169-71.
[5] Johnson, *Bookrolls*, 141.

even be up to 6cm or more and the LoM 7cm or more. He found no observable groupings according to textual genre or date. With these comments in view, we will now examine the rolls in our database according to the sizes and index scores for the UM and LoM. For details of the dimensions of MSS see App. 3, Table 5.

In Group A there are twenty-one rolls, of which thirteen are certainly Jewish. Eight of the Jewish rolls have information about CH, all with start-dates from II BC to I AD. Three of these have CH in the 16-21cm range (Class II) (**55-1 J**, 16.4cm; **56 J**, 15.5-16.5cm; **77-2 J**, 20cm); but there is also one in Class I (<16cm) (**49 J**, 10cm), and four in Class III (>21cm) (**46 J**, 24cm; **51 J**, 24-25cm; **57 J**, 28cm; **285 J**, 26-28cm). Amongst these Jewish MSS, the UM and LoM are often large (giving UM and LoM in that order): **46 J** (>3.3cm, >3.8cm), **56 J** (3.5-4cm, 4-4.5cm), **57 J** (>3.5cm, -),[6] **77-2 J** (>4.5cm, >5.5cm) and **285 J** (4.5cm, >3.9cm). A few Jewish MSS have smaller margins: **49 J** (1.3cm, 1.5cm), **275-1 J** (2.2cm, -). Of the three (out of a total of eight) rolls that are Christian and have some data about their CH, **286** (19.0cm) falls into Class II, whereas **133** has a CH of 22-23cm (Class III); **44** only has a minimum dimension (>1.6cm). In terms of Johnson's conclusions about literary papyri in general, there is nothing unusual in the CHs of these Christian rolls.

The small number of Christian rolls where the UM and LoM are known include an UM of 2.5cm (**14**) and LoMs of 1.8cm (**14**) and 2.0cm (**300**). Results for the UMI and LoMI are only available for some of the Jewish MSS (UMI and LoMI in that order): **46 J** (<7.3, <6.3), **49 J** (7.7, 6.7), **56 J** (3.9-4.7, 3.4-3.7), **57 J** (<8.0, -), **77-2 J** (<4.4, <3.6) and **285 J** (5.8-6.2, <6.7-7.2). It is not possible to calculate the UMI or LoMI for any of the Christian rolls. Thus, while we cannot compare the UMI and LoMI of the Christian MSS, the scanty evidence that exists suggests that they had a consistently smaller UM and LoM compared to most of the Jewish MSS.

In Group B there are four rolls with Christian texts, of which **537** (III/IV AD) is in Class II, and **459** and **559** (both III AD) in Class III. Some UMs are small (**559-1**, 1cm, Pl. 8; **459**, 1.7cm; **537**, 2cm), with two LoMs small-medium (**559**, 1.5cm; **537**, 3.3cm). The indices include some higher results (**537**, UMI 9.5-10; **459** UMI [14.7-

[6] A dash in these results indicates that no information is available for the dimension in question.

15.3];[7] **559**, LoMI 17.7), showing less generous margins compared to CH; but only the last of these is noticeably high, possibly indicating non-professional manufacture.
In Group C there are no measurements available for the two certain rolls.

In Group D known or reconstructed CHs include one in Class I (**674**, 13cm, but another column has 20cm), two in Class II, and one in Class III (**662**, [25cm]). Margin sizes are smaller in general (UM: **672** 2cm, **674** 2.3cm; LoM: **662** 1.7-2.7cm), but the LoM of **674** is 5cm. While available results for UMI and LoMI are higher overall (9.0-14.7), **674** is lower (UMI: 5.7 / 8.6; LoMI: 2.6 / 3.9), showing a fairly generous margin size in comparison to CH.
There are no rolls in Group E.

In Group F there are only three rolls, one of which is Jewish (**911 J**). For the two Christian rolls, it is not possible to ascertain the CH, but two UMs include one >1.5cm and one of 3.2cm, both suggesting a fairly generous size.

In Group G (with two rolls) CHs are unknown, but margin heights include a small UM (**1069**, 1cm) and small LoMs (**1069**, 1.3cm, 2cm; **1070**, 1.4cm).

In Group H there are four rolls, with CHs conforming to Class II (**1075**, **1079**) and just in Class III (**1080**); the CH of **1077** is not known. UMs vary from 1.1cm (**1080**) to 3.5cm (**1077**), and LoMs 0.4-6.0cm (**1080**), with some MSS showing quite a large range in the one MS (**1079**, UM 1.3-3.0cm; **1080**, LoM 0.4-6.0cm). The variety of measurements, even in single MSS, is consistent with the nature of these texts as magical in content, since some (e.g. **1075** and **1080**) contain magical symbols and pictures in the 'writing area' so that it is difficult to define what the margin size actually is. Results for UMI and LoMI also vary considerably in accord with the variety in margin sizes for **1079** and **1080**.

For Group I we would expect a degree of variety, given that these rolls contain unidentified texts and hence probably represent a selection of different genres of texts. Of the eleven Christian rolls in this group CH is only available for two, which are both Class III (**1178**, 22.8cm; **1154**, 24cm, Pl. 21), with these two having a smaller

[7] As in other parts of this thesis, square brackets are used in this section to indicate reconstructions, here reconstructed dimensions.

UM (**1178** 0.9cm, **1154** 2.5cm, Pl. 21) but one smaller LoM (**1178**, 1.7cm) and one more generous LoM (**1154**, 4.5cm). Only for **1154** is the UMI (9.6) or LoMI (5.3) small enough to show a desire to use wider UM and (especially) LoM. The results for UMI (25.3) and LoMI (13.4) for **1178** show that the scribe was not concerned to provide generous margins, especially the UM. No results for UMI or LoMI are available for all the other rolls in this group. However, other measurements of the UM show generous sizes (**1176-1**, 4.2cm; Pl. 2), although there are some quite small margin heights (**1141-1**, 1.2cm; **1146-3**, 1.1cm). Other LoMs are mostly generous, varying from 2.8cm to 4.5cm.
There are no measurements available for Group J.

Thus, these rolls show a variety in CH, UM and LoM, and hence UMI and LoMI, but only **559** shows anything out of the ordinary in dimensions or results, and the rolls with variable UM or LoM are **1079** and **1080** (two magical papyri). The nature of their content, especially in view of the inclusion of illustrations, is what makes the UM and LoM very uneven in the latter two cases, but would also be consonant with a lack of professionalism employed when they were copied. Accordingly, these three MSS are added into the list of MSS possibly copied by non-professional writers in Fig. 5.3 at the end of this section.

b. *Codices*

While codices might not have exhibited the same range of margin heights as rolls, it will be assumed, until the evidence shows otherwise, that they were similar. That this is not a totally unwarranted assumption is reinforced by the fact that, when the page breadth was large, more than one column was used in a codex. Codices mostly had narrow columns like a roll, and thus it would not be a rash assumption that margin heights would have been similar as well.

In the case of MSS that were clearly part of a codex, sometimes a major part, most fall well within the limits of normal margin sizes in relation to CH (and page size). Some of these are at the 'spacious' end, with generous margins and a UMI or LoMI less than 4.0; and some are at the 'cramped' end with narrow margins and a UMI or LoMI more than 15. Many are in between those ranges. Because of the large numbers of MSS involved, I will only mention here those MSS that fall in the unusual range, with

a UMI under 3.0 and LoMI under 2.0, or over 20 for either. Turner's 'rule of thumb' that the ratio of UM to LoM is normally 2:3 may also be kept in mind here;[8] but this is only a general average and is by no means determinative. Although it is somewhat arbitrary, we will take a UMI of 10.0 as the dividing point for comparison, in order to see how many MSS have a UMI higher or lower than that. This should indicate if there is a preponderance of more spacious or more cramped MSS.

In Group A **170-1** has a UMI of 70, since it has almost no UM (0.2cm). The MS may have suffered damage, and thus the original margin may have been greater, but since the lateral margins are also almost non-existent, this would confirm it as well outside the normal range, and hence a very uncommon case, and probably not produced by a professional scribe. Of the MSS for which a calculation of the UMI is possible, eleven have a score of 10.0 or more and thirty-one a score of less than 10.0, which indicates that the majority of them are towards the more spacious end of the spectrum rather than the more cramped end (UMI of 20 or more: **4**, **42**, **118**, **170-1**, **238**). With regard to the LoMI, eleven MSS have a ratio of 10.0 or more (only **4** has LoMI greater than 20 at times) and thirty-five less than 10.0. These results seem to point again to the copyists' general perception of the textual content as deserving of wider margins in line with literary works, and thus that they knew of such conventions and in these cases conformed to them. In light of these other instances, the very odd result for **170-1** stands out as clearly exceptional.

We should also expect that in some MSS margin sizes will often fluctuate (as will CHs), and hence that there will be a variation in the UMI or LoMI. However, if the variation is too great, this would seem to indicate a high degree of irregularity in the MS. I will take a variation in UMI or LoMI greater than 10.0 as irregular. In this Group there are no MSS with abnormally high deviation in their UMI or LoMI.[9] Indeed, the only MSS with a significant divergence in CH of 1.5cm or more are **4** and **317-1** (both varying up to 1.5cm). It is true that **15-1** varies by at least 6cm in some cases, but this variation is a reflection of different genres of textual material (prose and verse), the habits of the different scribes responsible for the MS, and the very

[8] Turner, *Typology*, 25.
[9] In **4** the results for the LoMI for different pages are between 14.3 and 23, just inside the notional limit of 10 that I have set above. An examination of the MS shows that it is damaged in numerous places, which might help to explain this divergence.

extensive nature of the codex itself which runs to at least 1460 pages. In a MS of this length it would not be surprising if some variation occurred.[10] In a few cases where dimensions are available, the UM is consistently greater than the LoM, which was unusual in literary texts, and this results in the LoMI being higher than the UMI.[11] This is so in the case of **180**, which must be taken as atypical, although it is not visually inappropriate (cf. **143**, **280-2**). However, since in the vast majority of cases the LoM is larger than or equal to the UM (with LoMI smaller than or equal to the UMI), this only serves to confirm that ***the copyists responsible for those OT MSS were aware of the broad conventions for copying 'literary' texts and conformed to them***.

In Group B only **482** and **559-2** have larger index results (LoMI 25.6 and 20.0 respectively). All others seem to fall within the normal range. The UMI is 10.0 or more in at least ten (and possibly two more) MSS, and less than 10.0 in twenty-two (and possibly two more); and the LoMI is 10.0 or more in at least six (and possibly one more) instances, and less than 10 in at least twenty-five others (and possibly one more).[12] This shows a tendency toward a more spacious layout, implying a perception of the texts as literary in nature, and further indicating that the copyists were aware of this convention and (in the vast majority of cases) conformed to it. There are only two MSS with an apparent variation of CH of more than 1cm: **523** varies about 4cm (16cm-20cm; but this is only a range reconstructed from a small fragment, not an actual variation) and **557** varies only 1.2 cm (12.6cm-13.8cm).[13] The only codex that stands out as having quite variable UM or LoM (and hence variable UMI and LoMI) is **548**, which has one page (numbered ΛΔ) with a large LoM in the middle of the continuous text (in 2 Pet 3.11) for no apparent reason. Since this MS also has slight variations in its CHs and UMs, it should be seen as somewhat unusual; and it will be seen to be irregular in other aspects throughout the remainder of Chs 5-7. The only MSS whose LoMs are sometimes smaller than the UM (and hence the LoMI greater

[10] Jongkind, *Codex Sinaiticus* does not discuss this topic.
[11] Very small differences are not recorded due to the fact that it is common for there to be inconsequentially small variations in papyrus or parchment size.
[12] The inexactness of these results is due to cases where they are, for example, less than 11.8, without knowing how much less. Hence it is not possible to know whether it is greater or less than 10. The same applies to other instances where exact results are not possible to obtain. Where there is a range for the UMI or LoMI, the average has been used for this count.
[13] Another case where the variation is only apparent is that of **534**. There is a range of speculations about the reconstructed CH.

than UMI) are **548** again (reinforcing its less than professional manufacture) and **557**. Since these two are part of the one papyrus codex, this is not surprising. The informal nature and abnormal features of this codex will occasion comment in other areas as well; and it will be seen that its non-professional production is confirmed. A final text to be noted here (**482**) is actually a bifolium, which exhibits some unevenness in UM and LoM; but the state of its preservation at upper and lower edges is quite fragmentary, which should caution us about drawing too firm a conclusion.

In Group C the only abnormally high or low UMI or LoMI results are for **607** (LoMI 18.9-23.1). There are seven MSS with UMI of 10.0 or more, and seven less than 10.0. For the LoMI there are nine MSS with an index less than 10.0 and five of 10.0 or more. These results show a tendency toward generous margins (or 'spacious layout'), although these are not as large as in Groups A and B on the whole. In turn, this leaning toward wider margins indicates again a perception of the text as literary, and shows that the copyists were aware of the conventions and followed them (although to a lesser degree than for Groups A and B). There is no evidence of significant variation in CH (1.5cm or more), but a variation for **607** in UM (0.6cm or more) and **569**, **584-3**, **599** and **604-1** in LoM (0.6cm or more);[14] the results for UMI or LoMI are also varied for **569**, **584-3**, **599** and **607**. The UM is larger than the LoM in **584-3**, **599**, **600**, **607** and **611**, showing a somewhat unusual layout. There are seven MSS with a UMI of 10 or more, and the same number less than 10, thus showing less of a tendency toward spacious layout than in Groups A and B; however, the LoMI in six MSS is greater than 10 as against nine less than 10, a slight tendency toward a spacious LoM. The regularity apparent in this group again shows an awareness of a widespread scribal convention on the part of the copyists, and a willingness to conform to it on the whole. Only a few MSS (**569**, **584-3**, **599**, **600**, **604-1**, **607**, **608**, **611**) stand out as unusual in any way, and hence were possibly copied by non-professional writers.

In Group D abnormally small scores for UMI only occur for **681** (UMI 1.5, LoM 0.3), which contains a short hymn and nothing more (and hence the lower half of the page is blank, thus skewing the UMI). **659** has quite a large upper limit for its UMI (<18.8-

[14] The larger measurements of variation are for **599** (LoM, 2-3cm) and **604-1** (LoM, 2.2-3.6cm).

20.0). The proportion of scores for the UMI less than 10 in comparison to those greater than or equal to 10 is 13:6, and for the LoMI it is 13:7, both showing a tendency to spacious layout (with wide margins). Significant variation in the CH occurs in **689**,[15] but only as a reconstruction; hence, it should be set aside from consideration.[16] Variations in UM and LoM only occur in **654-1** (UM 3-4cm, LoM 3.4-4.8cm) and **667** (LoM, 2.0-3.5cm). However, taking into account the CH and noting the UMI and LoMI, these variations are not highly significant. The UM is greater than the LoM in **642**, **648-1** and **667** (here only fractionally). Thus, there appear to be some unusual features in a small number of MSS in this Group, but there are not many of them, and also the degree of difference from the normal range is not great. Therefore, with few exceptions this group of MSS also shows an awareness of convention on the part of the copyists and a willingness to conform to it.

There are only two definite codices in Group E, neither of which demonstrate unusually high or low UMI or LoMI; hence neither is extremely spacious or cramped. **710** shows a small variation (0.5cm) in CH, and also has a smaller average LoM than UM (although, again, only slightly).

There are eight certain codices in Group F, but only **864** stands out with an abnormally high UMI (21-23). The proportion of results for UMI greater than 10 compared to those which are less than 10 is 2:3, and 1:5 for LoMI. This shows a slight tendency toward smaller index results (less than 10), that is, toward the spacious end of the spectrum. No MSS show a significant variation in CH, UM or LoM, but in **921** the UM is somewhat larger than the LoM.

The six codices in Group G do not show unusually large or small UMI or LoMI; and because of the small numbers involved, we can say little about proportions of more spacious MSS to more cramped ones. There are no significant variations in CH, UM or LoM, but in **1066-2** and **1071** the LoM is sometimes smaller than the UM.

[15] Cf. Aland, Rosenbaum, *Repertorium* II/1, 404.
[16] In fact, Turner, *Typology*, 133, No. 549 does not offer a reconstruction of the writing area, although he notes the editor's reconstructed page size in n. 89.

The two codices in Group H require little comment, except that in **1073** the LoM varies by up to 3cm (1.5-4.5cm), which makes this MS stand out as quite uneven.

The eighteen codices in Group I do not show abnormally large or small UMI or LoMI: all average 10 or more for the UMI and two of the three MSS with results for LoMI average less than 10. This group of unidentified texts shows little consistency in terms of a tendency toward being spacious or cramped. The variation in CH for **1159** is only apparent, since it is based on two different possible reconstructions of the original CH. There is a degree of variation of 1.5cm in the LoM of **1160** (1.0-2.5cm), which would be consistent with a lack of professional production, but this remains to be compared with other aspects of this MS. Only **1160** has a degree of irregularity consistent with a copyist who did not conform to convention in this matter, although that lack of conformity is not great.
There are no codices in Group J.

Thus, ***in the case of codices***, we have seen that in the various Groups there have been a number of differences, but ***on the whole there exists a conformity to convention in the matter of the size of the UM and LoM, with a tendency toward the 'spacious' end of the range***. In some MSS, although not many, we have encountered a significant variation in CH, UM or LoM; and in some the UM has been larger than the LoM, so that particular pages have larger spaces at the top. However, apart from the MSS noted above, there is also a high degree of adherence to the usual sizes of these measures (CH, UM, LoM), which shows an awareness of conventions for those sizes and a readiness to conform to them in the production of MSS. The unusual MSS will need to be noted in relation to other aspects of this study; but the point also follows, in contrast, that ***the vast majority of Christian MSS with start-dates in II–IV AD were copied by people who were aware of the conventions for copying works which were not Christian in content but were akin to them, and conformed to those conventions in their handiwork. Therefore, the vast majority of copyists show a professionalism in their work***, which is in contrast to the lack of professionalism shown in the production of the MSS which differed from the conventions in terms of size or regularity. Accordingly, the MSS which show irregularity or unusual layout will be added to the list in Fig. 5.3 below.

c. *Sheets*

Unlike codices and rolls, which often contain continuous texts of whole literary works, this set of papyri is clearly mixed. Sometimes further contents can only be guessed at, and their extant contents may appear to modern minds to lack any rationale. Therefore, due to the miscellaneous nature of these papyri, apart from variety in page size, we should also expect to find quite a variation in CH, as well as the UM and LoM, and hence also in the ratios of CH to UM and LoM, that is, in their UMI and LoMI. Wooden tablets will be included here along with sheets, since they also form a single writing surface, even if several were combined into a codex; and they will be noted when they occur.

In Group A the CH is known only for three MSS (**3**, **84**, **255**), all with a small UM (1.1-1.5cm). The LoMs are mostly small as well (e.g. **255**, 1.2cm), but generally similar to or greater than their corresponding UM, as would be expected in rolls or codices. **3** has a LoM of 10.5cm with an extremely small LoMI of 0.7 (indicating a very large LoM); however in this MS the 'margin' is not really what is normally meant by a margin, but a large blank space with no following text, which results in the skewed LoMI. For the other two sheets with known CH (**84**, **255**) the UMI results are 8.5 and 13, while those for LoMI are 4.3 and 13 respectively. The first of these results reflects a somewhat larger LoM, although not to the same extent as **3**. In any case, **255** is a wooden tablet with a narrow raised border and writing right up to the border, so that it is a different kind of example. Other UMs vary from 1.0cm (**84**) to 1.3cm (e.g. **134-1** Pl. 33, **255**), and the other LoM is 1.9cm (**246-1**). Such margins fall within the lower range of margin sizes. However, the small number of sheets with available scores, coupled with the varied nature of the purposes for which such MSS were written (issuing in varied CH and margin sizes), together explain the somewhat erratic results for UMI and LoMI in this Group. Where scores for UMI and LoMI fall below 10.0 (with the clear exception of **3**, with UMI of 5.1 and LoMI of 0.7), it would seem that the copyist felt that providing an adequate margin was a matter of importance, and this occurs in a large number of cases.

There are only three certain sheets in Group B, for none of which is the CH known. **490** may be a school exercise, but if not its purpose is unclear, and thus the extraordinarily large LoM (12.9cm) in proportion to CH (7.1cm) reinforces the

impression of its abnormality in comparison to continuous 'literary' OT texts. The small UMI (3.9) and very small LoMI (0.6) highlight this. The sheets in this group again appear to be rather unusual in the matter of the size and evenness of their margins, and thus may show their different functions.
There are no definite sheets in Groups C, D or E.

In Group F ('Liturgical and private prayers') there are forty two sheets, many of which are amulets. We would expect a considerable amount of variety in this Group, given that the texts are not literary texts in any sense, but presumably were often produced in response to personal requirements and with individual purposes in specific circumstances. Thus, amulets and prayers of other kinds may have quite different contents and purposes, depending on the situation. A number of papyri have CH less than 10cm; and if we adopt a similar criterion to that which Turner used to define 'miniature codices' (≤ 10cm), then these would be 'miniature sheets.' Some of these sheets (**893**, **918**, **1034-1**, **739**) are very small indeed, with CH less than 5cm (and page sizes not much larger). Indeed **739** is a small sheet, but was apparently at some time rolled up in such a way as to resemble a miniature 'roll.' However, as far as the UMI and LoMI are concerned, some clearly have a 'spacious' layout with UMI less than 5 (e.g. 4.4 for **902**, amulet; 3.0 for **953**, amulet), and some have unusually narrow UM with UMI larger than 20 (e.g. 30 for **892-7**, petition litany; cf. **918-3**, **948**). Some have a LoMI less than 5 (e.g. 3.9 for **844**, acrostic hymn; 2.7 for **914**, hymn), and some have an unusually narrow LoM with LoMI greater than 20 (e.g. 23 for **948**, magic formula; cf. **949**, **951**). Quite cramped UMs appear with UMI greater than 30 (e.g. >55 for **971**, imprecation; >60 for **1002**, exorcism); but there are no examples of MSS with very spacious margins and index results less than 2. Rather cramped LoMs with LoMI more than 30 occur in **948** (38.3, magic formula) and **918-4** (45, amulet).[17] An unusually spacious LoM occurs in **739** (0.9, imprecation). Except for the extreme examples mentioned here and a few other comparable ones, the papyri in this Group seem to exhibit a normal range of margin heights with respect to CH of writing, although there is quite a range of margin sizes and index results; and if the two results for indices are quite different for the same papyrus, this would provide a further atypical feature, since the scores tend to be similar in the case of

[17] However **918-4** is a wooden tablet, and thus exhibits features different from papyrus or parchment sheets. In this respect, it is always potentially quite different from other MSS.

literary papyri, as we have seen above. However, the very different examples cited above show us that extremes do occur, and it will be of significance to note these and to investigate whether any of them show other features which set them apart from other papyri. Thus, within a varied Group, some papyri still stand out as quite unusual, even though many of them are uncharacteristic in some way in comparison to literary papyri. Since there are not many sheets in Groups A-E, we should allow that this perception of non-conformity may be due to our having more data available for Group F than for the other Groups.

In Group G, again a varied collection, there are four MSS which are certainly 'sheets,' two of which are wooden tablets, so we expect to find the variety which occurs. Except for **1067** (Gnostic invocation), margins are very small (UM 0.5-0.9cm; LoM 0.3-0.9cm, including **1066-3**), while those of **1067** are quite large (UM 3cm, LoM 11cm). Thus, the latter has a very unusual LoMI (0.9). Of the other three, **1066-6** (Manichaean prayer) has quite high results for UMI and LoMI (both 31.1), showing that providing spacious margins was not the copyist's concern. Thus the margins are quite small, and some of these papyri show unusual UMI or LoMI. In this Group, however, the small number of MSS involved does not allow us to draw firm conclusions about the Group in general. The fact that **1066-5** and **1066-6** are wooden tablets also allows us to leave these examples to one side as being quite distinct in form and kind.

Of the four sheets in Group H, one UM (for **1079-2**) and one LoM (for **1076**) are quite small (both less than 1cm); but the other marginal sizes fit within the normal range. As for the UMI, results are also within normal limits, but the LoMI is very small (0.8) for **1079-2**, which has an unusually large space in the lower part of the papyrus (see Pl. 11). Here **1081** (magical and astrological texts) shows a variety of CHs (10.2-16.8cm) and LoM sizes (2.0-7.0cm), though having a consistent UM size of 1.5cm. The unusual features of these papyri, such as they are, are consistent with the nature of these items as magical texts, often with a variety in their content and layout.

Of the MSS in Groups I and J that are certainly sheets, only **1136** has any dimensions available, an UM of 2.4cm, which is not unusual. There is nothing else to comment on

with regard to these MSS, since nothing is known about the other dimensions of their writing area.

Thus, on the basis of an examination of CH, UM and LoM of the MSS in my database (rolls, codices and sheets), ***the large majority of MSS of Christian texts from II–IV AD show that the copyists were professional scribes who knew the norms in these matters and, on the whole, followed them***. Sheets are often exceptions to this. Those that stand out as possibly not having been professionally produced are listed in Fig. 5.3 below. At this stage, no comparison has been made with Fig. 4.18 at the end of Ch. 4; that will be undertaken at the conclusion of the present chapter.

Figure 5.3 **MSS possibly produced by a non-professional writer (based on CH and UM/LoM)**

Group A	**3**, **4**, **14**, **42**, **84**, **118**, **134-1** (Pl. 33), **143**, **170-1**, **180**, **238**, **246-1**, **255**, **280-2**, **300**, **317-1**
Group B	**459**, **482**, **490**, **523**, **537**, **548**, **557**, **559**, **559-1** (Pl. 8), **559-2**
Group C	**569**, **584-3**, **599**, **600**, **604-1**, **607**, **608**, **611**
Group D	**642**, **648-1**, **654-1**, **667**, **689**
Group E	**710**
Group F	**864**, **892-7**, **918-3**, **918-4**, **921**, **948**, **949**, **951**, **971**, **1002**
Group G	**1066-2**, **1066-3**, **1066-5**, **1066-6**, **1069**, **1070**, **1071**
Group H	**1073**, **1076**, **1079**, **1079-2** (Pl. 11), **1080**, **1081**
Group I	**1141-1**, **1146-3**, **1160**, **1178**

It should be emphasised that, due to the exigencies of copying MSS by hand in antiquity, these kind of factors (e.g. variation in CH, UM and LoM) cannot be taken *by themselves* as indicators of the work of non-professional copyists, but may only be used to confirm conclusions reached about these MSS on other grounds.

5.2 **Column breadth, inner / left and outer / right margin breadth**

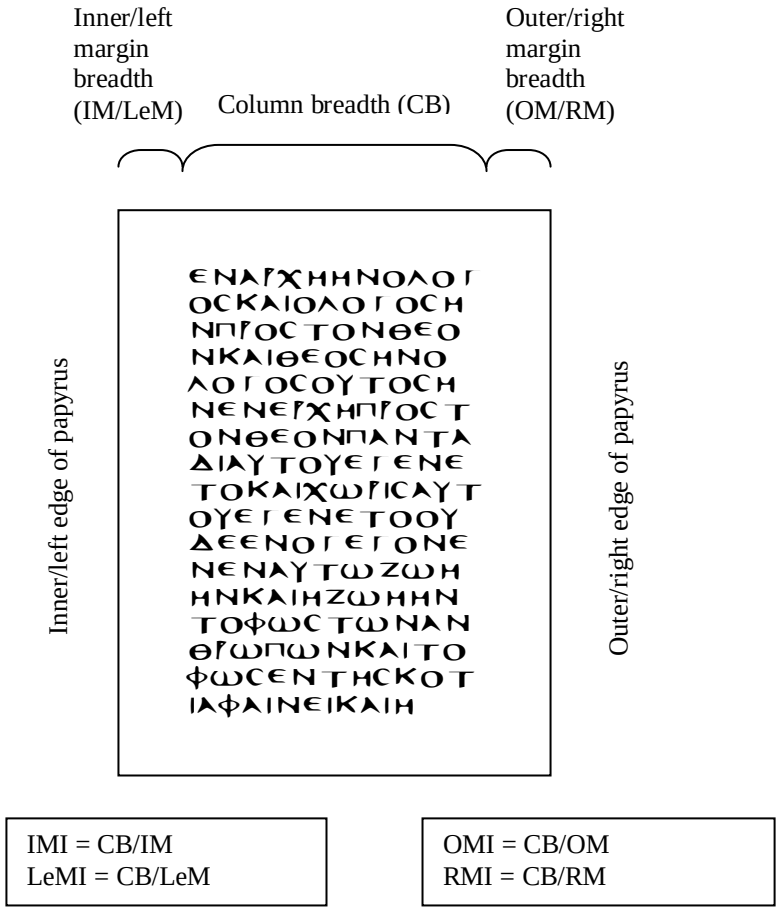
In Ch. 2 (§2.3f.iii-vii) a number of aspects of the breadth of writing were noted as probable indicators of the hand of a non-professional writer. We now examine the column breadth of MSS in the database, as well as comparing it with the inner and outer margin sizes of codices (as well as the left and right margin sizes of sheets), as far as possible. Rolls do not feature here, because they do not have such margins at the sides. In the case of codices or sheets with more than one column, we will treat here the whole writing area as including any space between columns; whereas in §5.3 we will examine the actual column breadth and intercolumnar space in rolls, as well as sheets and codices with more than one column. See Tables 8 and 9 in Vol. 2,

App. 3 for the complete details on the basis of which the following observations have been made. The following abbreviations are used in this section:

CB	column breadth		
IM	inner margin breadth	IMI	inner margin index (CB/IM)
OM	outer margin breadth	OMI	outer margin index (CM/OMI)
LeM	left margin breadth	LeMI	left margin index (CB/LeM)
RM	right margin breadth	RMI	right margin index (CB/RM)

Just as calculations were made for the index results for UM etc. in the previous section, index results are also calculated for IM etc. in this section, and the diagram below (Fig. 5.4) shows how these index results have been calculated.

Figure 5.4 **Calculating the inner margin index (IMI) and outer margin index (OMI), *or* left margin index (LeMI) and right margin index (RMI)**



Although exact measurements are often given in this section, this should not be taken to imply that each MS so designated had margins with a high degree of exactness for the whole page. This is true only for a minority of MSS, especially in the case of

lateral margins. The results given reflect an average breadth; but if the variation is significant this has been noted as a range in my detailed analysis. Moreover, in some cases the extant margins are slightly smaller than they were originally, and this has been taken into account in the analysis by giving what the original dimensions seem to have been, if this is reasonably certain. Since the left writing edge is normally quite even and the right writing edge can be somewhat uneven, note has been taken of those MSS in which the left writing edge is uneven or the right writing edge is unusually uneven or quite even. MSS whose original form is not certain have been set aside in this examination. In some MSS there are different layouts within the one MS, perhaps due to a variation in the number of columns or the kind of material contained, such as two columns for poetry and three (or four) columns for prose.

a. *Codices*

In order to orient our discussion, it is appropriate at the beginning to establish what the LeM and RM breadths were in codices with a spacious layout (often called 'deluxe editions'), as well as in those with quite narrow margins. It will also be useful to calculate the IM index (IMI) and OM index (OMI) in known cases, so that we have some parameters with which to compare the dimensions and index scores which we find in other codices. The index scores should, then, give a more accurate comparison between codices, since they are not as dependent on page size, being calculated by dividing the CB by the breadths of the IM and OM in a similar way to those for UMI and LoMI. Fig. 5.4 above shows how these calculations have been made for horizontal measurements. Taking **15-1** (Pl. 25), **19-1**, **30-1**, **31-1** and **52** as those with spacious layout, their dimensions (in cm) and index results are as in Fig. 5.5 below.

Figure 5.5 **MSS with 'spacious layout' (sizes and index scores)**

	15-1	**19-1**	**30-1**	**31-1**	**52**
CB	25cm / 31cm	17cm	19cm	12cm	12.7cm
IM	0.75-1.5cm	1.3cm	2.5cm	3.0cm	2.5cm
OM	1.8-4.5cm	5.5cm	4.5-5.0cm	3.0cm	4.1cm
IMI	17.7-33.3 / 20.7-41.3	13.1	7.8	4.0	5.1
OMI	5.6-13.9 / 6.9-17.2	3.1	3.9-4.3	4.0	3.1

Thus, at the deluxe end of the range of horizontal page layout, the IM may extend from 0.75cm up to 3cm, and OM from 1.8cm to 5.5cm, with IMI extending from 4.0 to c. 41 and OMI from c.3.0 to c. 17.[18]

The dimensions of two literary codices from outside my database with average-to-wide IM and OM may be compared with the above: *P.Oxy.* 47.3321 (Euripides, *Phoenissae*; II–III AD), and *P.Lond.Lit.* 127 (Demosthenes, *de falsa legatione*; II AD).[19] The comparative data is given in Fig. 5.6 below.

Figure 5.6 **Comparative literary codices (sizes and index scores)**

	***P.Oxy.* 47.3321**	***P.Lond.Lit.* 127**
CB	8.0cm	12.0cm
IM	0.6-1.4cm	1.0cm
OM	1.9cm	3.0cm
IMI	5.7-13.3	12.0
OMI	4.2	4.0

The margin breadths fit within those arrived at for spacious MSS in my database (from Fig. 5.5), although moving the minimum IM down a little to 0.6cm.

By way of comparison, the margin sizes and index results for two quite cramped MSS (**170-1**, **558**) are given in Fig. 5.7 below. Here, the extremely narrow margins are less than 0.7cm, so that results for IMI and OMI both extend from 8.0 up to 52.5.

Figure 5.7 **MSS with 'cramped layout' (sizes and index scores)**

	170-1	**864**
CB	10.5cm	8.5-9.5cm
IM	0.2cm	0.8cm
OM	0.2cm	0.5cm
IMI	52.5	10.6-11.9
OMI	52.5	17.0-19.0

In these cases, the minimum IM has moved down to 0.2cm and the minimum OM to 0.2cm.

Thus, compounding the results for the spacious MSS (including some not in my database) and cramped MSS, it seems reasonable to suggest that the IM may extend roughly from 0.2cm to 3.0cm, and OM from 0.2cm to 5.5cm, the smaller

[18] The large scores here are a result of very large page size in multiple columns and occasionally small inner margin breadth. Much more commonly IMI is c. 17 and OMI c. 11 in multiple columns.
[19] Plates of *P.Oxy.* 47.3321 occur as plates V and VI in that volume. For a plate of *P.Lond.Lit.* 127 see Turner, *GMAW*, No. 82.

measurements being for MSS with less spacious layout and the larger dimensions for those with more spacious layout. However, an IM less than 0.9cm or an OM less than 1cm is quite cramped, depending somewhat on the page size. Since this in itself does not take into account the page size, we will also note that the IMI may extend from 4.0 up to c. 40 and OMI from 3.1 up to c. 17, the smaller scores for more spacious layout. A very high IMI or OMI (such as 52.5 for **170-1**) indicates a quite cramped IM or OM. With these parameters in mind, we will now examine the codices in the database where measurements are available for CB, IM and OM.

In Group A we should take note of the codices that stand out as extremely cramped according to the above criteria (with IM or OM quite small). They are **4** (IM 0.8-1.0cm), **11** (OM 0.9cm), **13** (IM 0.5cm, OM 1cm; IMI 17.0-18.0, OMI 8.5-9.0), **30-2** (OM 1.0cm), **42** (IM 0.9cm), **62** (IM 1.0cm), **75** (IM 0.8cm, OM 0.8cm), **76** (IM 0.5cm; IMI 17.0), **92** (IM 0.5cm), **136** (IM 0.4cm, OM 0.1-0.3cm; IMI 9.8, OMI 15.6-26.0), **170-1** (noted above), **265** (IM 0.5cm, OM 1.8cm), **280-2** (OM 1.0cm), **281** (IM 0.5cm, OM 2.3cm) and **316** (OM 1.0cm). All these are quite crowded, and therefore are among those possibly produced by non-professional writers. This is especially true for literary texts, so the comparison of the MSS on my database with literary texts, along with its implications, will need to be discussed at a later stage (see Ch. 8, §8.1). A MS with an extremely large IM (>3cm) is **87-2** (3-4cm on average). Another is **308**, which has one very wide IM of 4cm. There are no MSS with a larger OM than **19-1** (5.5cm, as above). In a range of fifty-five average scores for IMI (mainly 4-40), there are six with a score of less than 4.0, forty-three with 4.5-15.0, three with 16-22 (**4, 13**, **76**), and three with a score greater than 22 (**15-1**, **170-1**, **281**). Thus, the clear tendency is toward an IMI of 4.5-15.0, that is, toward the spacious end of the spectrum. In a range of fifty-five average scores for OMI (mainly 3.0-17.0), there are three that are 3 or less, forty-nine from 3.1 to 10.0, two from 11 to 16, and one greater than 17 (**136**). Again, the tendency is toward lower scores, and thus the spacious end of the scale.

There are only seven MSS with significant variation of 0.5cm or more in IM (**7**, **15-1**, **61-1**, **87-2**, **118**, **269**, **308**), and nine MSS for OM (**4**, **7**, **15-1**, **30-1**, **61-1**, **269**, **293**, **315**, **317-1**). Some MSS are notable for having an even RM, namely **15-1**, **19-1**, **21-2**, **30-1**, **52**, **68**, **205**, and **276**. A number of MSS have a highly uneven RM, especially

41 and **61-1**; but this is a common occurrence in many papyri. A number of MSS are very uneven both on RM and LeM, but this is mostly due to the nature of the textual content, as poetic texts are often indented on the left and frequently do not complete the line on the right. In fact, it could be said that in such texts the 'margins' should really be taken as the space outside the far left writing edge or right end of the longest lines. Normally, the breadth of the IM will be smaller than or equal to that of the OM. As far as the data allows, this is almost universally the case, except for **143**; and even here the difference is not visually inappropriate due to the generous margins. Thus, the MSS in Group A exhibit a normal range of margin breadths, except for the small number noted above that we will have reason to examine in conjunction with other criteria in the remainder of Chs 5-7. However, in the majority of cases the IM and OM fall within normal margin breadths, and there is even a tendency toward the spacious end of the range. So, again it follows that, with some obvious exceptions, the majority of the copyists responsible for these MSS were aware of (and conformed to) current norms for literary texts in margin breadths, especially in relation to writing area breadth, thus testifying to their professionalism.

In Group B extremely cramped MSS that stand out with small IM or OM are **336** (IM 0.5-0.6cm, OM 0.5-0.6cm), **347** (IM 0.1-0.3cm, OM 0.1-0.3cm; Pl. 24), **428-1** (IM 0.5cm), **467-2** (IM 0.5cm), **473-1** (IM 0.5cm), perhaps **542** (IM 0.5cm?), **558** (IM 0.5cm, OM 0.5cm), and **561** (IM 0.5cm, Pl. 27). There are no MSS with IM greater than 3cm, and only **367** (OM 4cm) and **563** (OM 3.5cm) have an OM greater than 3cm. There are no MSS whose average IMI lies outside the 4.0-40.0 range; but MSS whose average OMI is outside the 3-17 range are **336**, **355-1**, **467-2**, and **473-1** (higher and hence rather cramped); **545** (2.6) and **563** (2.9) both give the impression of being spacious despite being quite small codices, especially **545**. Within the normal range of IMI (4-40), there are forty-four with scores of 4.5-15.0, four of 16-22, and none greater than 22. In comparison to the normal range of OMI (3.1-17.0), there are two less than 3.0, forty-six in the range of 3.1-10.0, none in the 11-16 range, and only two greater than 17. Thus, the bulk of the MSS fall well within the lower range both for IMI and OMI, and again show a tendency toward spacious (rather than cramped) layout. Only **356** shows a significant variation (of 0.5cm or more) in IM and OM breadth. There is no MS with OM breadth less than IM breadth. A few MSS show a

somewhat uneven LeM (**351**, **355-1**, **501-1**), and one is very uneven (**378**). RMs are fairly even in **362-1** and **379**, very even in **555**, and very uneven in **557**.

In Group C a few MSS have IM less than 0.7cm: **574** (0.2/0.6cm), **597** (0.5cm), **598-1** (0.5cm; Pl. 9), **603** (0.5-0.6cm); but both **574** and **603** are miniature codices. Only **598-1** has an OM less than 1cm (0.8cm). **573** alone has an average IM (4cm) greater than 3cm. Thus, most fall within the normal range for IM and OM. In terms of the IMI, whose normal range is 4-40, none fall outside those limits, twelve score 4.5-15, and **597** scores 17.7 average. The OMI has a normal range of 3.1-17.0, but in this group two fall below 3.1 (**574** 2.0/2.1, **610** 1.7), indicating an unusually wide OM. All the rest fall into the lower 3.1-10.0 range. The IM is always less than or equal to the OM. Two MSS show a significant variation in margin size (of more than 0.5cm): the OM of **578** (1.0-2.4cm) and **604-1** (1.1-1.8cm). In this Group **569** has a slightly uneven LeM and very uneven RM; and **610** has a very even RM.

In Group D a very small IM occurs in **642** (0.6cm), and a very wide IM in **664** (>4.3cm), which suggests that the latter must have been a deluxe codex. The OM is small in **642** (0.6cm), a miniature codex, and very wide in **648-1** (3-4cm), **654-1** (3-4cm), **659-1** (3.5cm), **664** (>4.7cm) and **689** (3.5-4.0cm). Clearly, some of these codices were high class books. The normal IMI ranges from 4 to 40, and all of the MSS fall within that range; in fact, all fall into the lower range of 4.5-15.0. The usual average OMI ranges from 3.1 to 17, with only **623** sometimes falling below 3.1 (i.e. 2.3); **693** is in the 11-16 range, and there are twenty-four codices in the 3.1-10.0 range. The lower scores show a more spacious layout. Significant variation in IM breadth occurs in **623** (1.0-1.5cm), **648-1** (1.5-2.0cm), **654-1** (1.0-2.0cm), **693** (2.0-2.5cm), and in OM this occurs in **623** (2.0-3.0cm), **627** (2.7-3.2cm), **648-1** (3.0-4.0cm), **654-1** (3.0-4.0cm), **678** (1.8-3.0cm), **689** (3.5-4.0cm), **696** (1.5-3.0cm). Only in **693** is the IM (2.0-2.5cm) greater than the OM (1.0-1.5cm); but there is some difficulty in assigning ‘inner’ and ‘outer’ here, since these leaves were cut from a roll, and it is not certain from the photographs that the wider one is the IM. However, this MS should be kept in mind as a possible non-professional production. In this group **626** has a very uneven RM, while both **677** and **694** have a slightly uneven LeM.

Of the two codices in Group E, **710** seems to fall within normal ranges of IM, OM and IMI and OMI. However, **710-1** has an IM of 3.0-4.0cm, and an IMI of 3.1-4.2, which is low, and thus has a more spacious layout. Both MSS show some variation in IM breadth, but IM is greater than OM when it is possible to ascertain its size.

Of the eight certain codices in Group F, cramped IM occurs in **728** (0.2-0.3cm), while the IM of **862+863+864** is not quite as narrow (0.8cm). Cramped OM occurs in **728** (0.1-0.2cm) and also **862+863+864** (0.5cm), the latter OM being narrower than the IM of the same MS. All average scores for IMI fall in the 4-40 range, in fact in the lower part of that range (4.5-15.0). Average scores for OMI are unusual, however, with one low score for **1037-4** (3.0), two MSS with scores in the range 3.1-10.0, and two others with OMI greater than 17 (**728**, 17.5-35.0; **864**, 17.0-19.0). Significant variation in margin breadths occurs in **879** (1.5-2.2cm). IM is greater than OM in **728** and **862+863+864**. In this group three MSS (**728**, **862**, **921**) have very uneven RM; but, as we noted above, this is not unexpected in liturgical and hymnic texts. Thus, there are some codices in this Group with a number of quite unusual features, so that these should be examined in relation to other factors for a study of the professionalism of their production.

Of the six definite codices in Group G, some IM breadths are narrow – **1065** (0.5cm?) and **1066-2** (0.2-0.4cm) – but no IM is very wide. The OM of **1065** is narrow (0.8-1.0cm?), as is **1066-2** (0.3-0.6cm), while that of **1071** is very wide (3cm). All average IMI results fall in the 4-40 range – in fact, all between 4.5 and 15.0. All available results for OMI fall into the 3.1-17.0 range, and again at the lower end (3.1-10.0). There is some variation in margin breadths in single MSS, but all vary less than 0.5cm. The IM is always less than the OM. In this Group, **1071** has a quite uneven LeM and RM, which is not unexpected in a magical text.

In Group H there are only two certain codices. **1073** has a very wide OM (3.5-5.0cm), which also varies significantly from page to page. All other measurements fall within normal ranges, including the lower half of the IMI and OMI scores. The IM of **1074** is a little uneven.

In Group I the IM is significantly small in **1149-2** (0.7cm), and may be only slightly greater in **1121** and **1148**, with no MSS having considerably wide IM. The OM is narrow in **1091** (0.7-1.0cm?), and wide in **1126-3** (3.0-4.0cm) and perhaps **1151** (3.1cm?). The average IMI scores all fall into the lower range of 4.5-15.0, and average results for OMI are in the 3.1-10.0 range, except for **1159** (7.0-15.0). Significant variation in IM occurs in **1126-3** (3.0-4.0cm) and **1159** (1.0-2.0cm). All IM breadths appear to be less than their OM breadths, as far as the evidence allows. Some MSS have an IM which is uneven (**1159**, **1160**, **1188-1**) or very uneven (**1091**, **1121** Pl. 16, **1142-5**).

There are no codices in Group J.

In light of this analysis, those codices with a very small IM or OM, and hence with a very high OMI or IMI, will be kept in view as possibly not produced by a professional scribe. MSS with significant variation in IM and OM will also be notable in this regard. We will note that MSS in Group F may not conform to the parameters given for literary texts because of their obviously non-literary and varied character. The MSS noted above as possibly copied by non-professional writers will be incorporated into Fig. 5.8 below at the conclusion of §5.2.

b. *Sheets*

In this section we will examine those MSS that are certainly sheets, leaving to one side those that may be sheets but could equally be leaves from a codex or even parts of a roll. Since a sheet resembles a page from a codex to a degree, we will use similar categories and measurements to examine them, except that we will now use LeM (left margin breadth) and RM (right margin breadth). There will be an expectation that the LeM will be approximately the same size as the RM, or a little greater, since the LeM is more under the control of the writer and the RM normally uneven as the writer decides what words to include at the end of each line. This latter assumption will be tested as we examine the sheets included on my database. As well, since sheets are by definition individually distinctive, they are more liable to be fragmentary; as a result, the dimensions of their side margins or CB are often not available. Hence, the number of MSS in the sample is quite small, and this should caution us against drawing conclusions too firmly.

In Group A the LeM of **3** is extremely large (8cm), as is its RM (6.5cm); and this highlights its quite unique form. The available results for the LeMI of sheets in this Group are within the normal range (for codices), and actually in the lower part of that range (4.5-15.0), except for **3** which has a very low score (1.0) and hence quite a spacious layout. The available RMI scores for **3** also stand out as very low (1.2), but the others spread out evenly in the normal range (3.1-17.0). The LeM of **246-1** may be somewhat uneven.
In Group B **490** is the only certain sheet, and falls within the normal range in all areas.
In Group C there is no information about the one sheet (**581**).

In Group D **698-2** has an uneven LeM and RM, although this is to be expected in a selection of disparate *sententiae*. Other dimensions and index scores for LeMI and RMI are within normal ranges.
There is no information about the one sheet (**715-2**) in Group E.

Group F contains a large proportion of sheets, and hence deserves particular attention here. There are numerous sheets with uneven (or somewhat uneven) LeM, and one (**844**) with a very uneven RM. The margins are very small in **849** (0.35cm, 0.55cm),[20] but this is a miniature sheet and the index results for LeMI and RMI are in the normal range, as are those for **893**. The LeM is small in **918** (0.7cm), and both LeM and RM are small in **918-1** (0.2cm, 0.2cm). A small LeM also occurs in **918-4** (0.5cm, 1.0cm), **949** (0.6cm, 0.8cm), **951** (0.4cm, 0cm), **953** (0.2cm, 0.4cm), **967** (LeM 0.5cm), **968** (0.2cm, 0.45cm), **971** (LeM 0.1cm), **983** (0.8cm, 0.5cm), **996-1 J** (≤ 0.3cm, 0-0.2cm), **1034-1** (1.3cm, 0cm) and **1050** (0.2cm, 0.8cm). However, a number of these (e.g. **967**) are small sheets with the LeMI and RMI scores in the normal range; but in some MSS the CB is unknown, so that the index results are impossible to calculate. **951** has a quite large LeMI (38), and the RM is virtually non-existent due to wear; and **996-1 J** has very large index scores as well. **1034-1** has a very small LeMI and infinite RMI (since the RM is 0cm, the final line going right up to the edge). These last three sheets thus stand out as quite unusual in this Group. The smaller margins in the other cases fit with the size of the sheets. Finally, there is significant variation (more than 0.5cm)

[20] In this section, if there are two scores mentioned, the first is the LeM and the second the RM. If one only is given, it is specified as to whether it is LeM or RM.

in the RM of **1036-1**; but this also is not unexpected in a hymn text with variable line lengths.

In Group G two sheets have small margins: **1066-3** (0.6cm, 0.6cm) and **1066-5** (LeM 0.8cm). The LeMI for **1066-5** is within the normal range; and there is no CB available for **1066-3**, hence no index scores. The other index scores are also in the usual range, with **1067** having generous margins (2cm, 1.8-4.5cm), the latter showing quite significant variation. The LeM of **1066-3** and **1067** is slightly uneven.

In Group H the margins of **1076** are small (0.4cm, 0.1-0.5cm) and RMI very large (12.4-62.0 / 13.2-66.0). The LeM of **1081** is generous (4cm / 1-2cm), and the RM of **1079** is also quite large (9cm) with a very small RMI (1.1). Both the LeM and RM of **1078** are quite uneven; the LeM of **1079-2** is slightly irregular and the RM even more so (see Pl. 11), as is the LeM of **1081**. The LeM of **1081** has significant variation (as it does in other aspects), as does the RM of **1078**.

In Group I there is nothing irregular about the margin sizes or variation for MSS whose LeM and/or RM are able to be ascertained (**1136**, **1150-4**); and the CB of all five sheets is not known, so there are no available LeMI or RMI scores.
There is no information about Group J for this feature.

Therefore, ***with respect to CB, IM and OM (and LeM and RM), the majority of MSS conform to patterns consistent with being produced by a trained scribe***. The MSS listed in Fig. 5.8 below are those that show some signs of being produced by non-professional writers, although this will need to be confirmed in relation to other features of the MSS. It should be stressed that, since MSS such as **15-1** (*Codex Sinaiticus*), which were clearly copied by professional scribes (see Pl. 25), occur on this list due to variations in their CB, IM and OM, this criterion of column breadth in relation to inner and outer margin breadths on MSS should not be taken as a firm indicator that non-professional writers have been responsible for their copying. Such factors can only confirm the assessment of the MSS made on other grounds. Groups without MSS have been omitted.

Figure 5.8 **MSS possibly produced by a non-professional writer (based on CB and IM/OM or LeM/RM)**

Group A	**4**, **11**, **13**, **15-1** (Pl. 25), **30-2**, **41**, **42**, **61-1**, **62**, **75**, **76**, **87-2**, **92**, **118**, **136**, **143**, **170-1**, **246-1**, **265**, **280-2**, **281**, **308** (Pl. 34), **316**
Group B	**336**, **347** (Pl. 24), **351**, **355-1**, **356**, **378**, **428-1**, **467-2**, **473**, **473-1**, **501-1**, **542**, **557**, **558**, **561** (Pl. 27)
Group C	**569**, **574**, **578**, **597**, **598-1** (Pl. 9), **603**, **604-1**
Group D	**623**, **626**, **627**, **642**, **648-1**, **654-1**, **678**, **689**, **693**, **696**, **698-2**
Group F	**728**, **844**, **849**, **862+863+864**, **879**, **918**, **918-1**, **918-4**, **921**, **949**, **951**, **953**, **967**, **968**, **971**, **983**, **996-1 J**, **1034-1**, **1036-1**, **1050**
Group G	**1065**, **1066-2**, **1066-3**, **1066-5**, **1067**, **1071**
Group H	**1073**, **1074**, **1076**, **1078**, **1079-2** (Pl. 11), **1081**
Group I	**1091**, **1121** (Pl. 16), **1126-3**, **1142-5**, **1148**, **1149-2**, **1159**, **1160**, **1188-1**

At the end of this chapter these MSS, along with those occurring in the similar lists at the end of each section, will be compared and a more developed list presented in Fig. 5.18.

5.3 **Column breadth and intercolumnar space**

In this section we will examine the column breadth and intercolumnar space in rolls, as well as in those codices and sheets with more than one column. The intercolumnar space is measured as a horizontal breadth. See Tables 10 and 11 in Vol. 2, App. 3 for the details of the measurements alluded to in §§5.3a-b. Aside from abbreviations previously noted at the beginning of §5.2, the following are used in this section:

IS intercolumnar space ISI intercolumnar space index

The latter is calculated by dividing the CB (column breadth) by the IS (CB/IS).

a. *Rolls*

In his study of literary rolls from Oxyrhynchus Johnson examined the CB of literary prose and verse texts.[21] His comparison set provided very similar results to the material from Oxyrhynchus, which was the focus of his analysis. This implies that the results do not just apply to MSS from Oxyrhynchus. We will first of all note Johnson's conclusions with regard to both kinds of text, and then use them as a basis for comparison with the rolls in our database. The remarks made in the introduction to this chapter should be kept in mind, since many of the MSS in Group F are non-literary in nature, and those in Group I will probably be quite varied due to the fact that the texts are unidentified.

[21] This section draws on the results reported in Johnson, *Bookrolls*, 100-19.

i. Prose texts

With regard to prose texts, Johnson found that the normal range of CB is 4.3-7.5cm, with some in the 8-9cm range and a tiny group with 10cm or more. Using his three Categories of handwriting, he shows that MSS in the calligraphic Category 1 mostly have a CB of 4.3-7.1cm, Category 2 is similar, and the non-professional Category 3 has a heavy concentration in the 6.3-7.2cm range. All three Categories have a few MSS with CB greater than c. 8cm. Thus, rolls produced by professional scribes are almost all in the 4.3-7.5cm range, and non-professional copies fall into the upper part of that range. This may be represented in Fig. 5.9 below.

Figure 5.9 **Column breadth by 'script formality' – prose texts (Johnson, *Bookrolls*, 103)**

Category 1	4.3 – 7.1 cm (most) ≥ 8.5cm (a few)	Professional and calligraphic
Category 2	4.5 – 7.5 cm (most) 7.9 – 10.0 cm (a few)	Informal but professional
Category 3	6.3 – 7.2 cm (most) ≥ 8.5cm (a few)	Non-professional

Johnson also examined the distance from the left writing edge of one column to the left writing edge of the next column, and found that there was a range across all Categories and dates (6.3-9.0cm, mostly 7.0-8.4cm; with a few 9.5-10.0cm).[22]

Further, Johnson found that the ISs in literary rolls can generally be grouped into two sets, although there is a small number of MSS in which the IS is smaller (down to 1.0cm) and a few that are larger (up to 2.7cm). The two sets are as follows: the first (1.2-1.8cm) clustered around 1.5cm (or slightly greater), and the second (1.9-2.5cm) around 2.0cm (or slightly greater). In the better written rolls he found a tendency to use a wider IS, especially greater than 1.5cm.

ii. Verse texts

In verse texts Johnson noted that there are rolls with a narrower CB (8-11cm, mostly trimeters) and a broader CB (11-14cm, mostly hexameters). Deluxe editions have somewhat wider columns, partly due to a larger letter size. The column-to-column measurements (left column edge to left column edge) are in the range of 10-14cm, with 12-13cm being the norm; there is also a tendency for more poorly written texts to

[22] Johnson, *Bookrolls*, 109.

prefer narrow IS (less than 3cm), and for well-written texts to prefer wider ones (3cm or greater, even up to 6cm).[23]

In order to offer some comparative results for the ISI scores, I now take two of the papyri for which Johnson provides plates (*P.Oxy.* 17.2102, *BL* Pap. 131v), in order to have some parameters within which to examine the MSS in my database.[24] My own calculations of the IS index scores (ISI) (CB divided by IS) takes *P.Oxy.* 17.2102 as quite spacious,[25] with an ISI of 2.1. If we take the Aristotle papyrus (*BL* Pap. 131v; Pl. 1) as an example of cramped layout, even using the narrowest column in the plate as a minimum, its ISI is c. 5.5 or greater (the widest column in the plate gives an ISI of 15.7). Thus, the normal range of ISI for prose texts appears to be about 2.0-4.5, with the Aristotle papyrus above the normal range and therefore quite constricted in layout. For verse texts, if we assume that the larger CBs (11-14cm) accompany the smaller IS measures (1.5-3.0cm), there is a range of c. 4.5-7.5 for ISI. This is higher than the normal ISI measures for prose texts (see just above), but is consistent with the fact that in verse texts columns are generally broader (larger CB) with IS only slightly larger for verse texts; so, the CB divided by IS will yield a larger number on the whole. On the basis of Johnson's work, we have established the 'normal' measurements for the CB and IS, and thus calculated a range for the ISI of literary rolls; so we now examine the rolls in our database with these results in mind.

In Group A the CB of 'prose texts' (Genesis – Chronicles) mostly have greater CB by comparison with the literary prose rolls that Johnson studied. However, **38 J** (5.4cm) and **77-2 J** (7.0-7.5cm) fall within the normal range. **275-1 J** (8cm) and **312 J** (8.9cm) are more poetic in content, and their CB is consistent with the wider verse CBs noted by Johnson. Of the eight rolls with a CB of 10cm or larger (seven of which are clearly Jewish), six (**5-1 J**, **46 J**, **51 J**, **55-1 J**, **56 J**, **57 J**) are not verse texts; so their breadth might be thought to be unusual. However, this may only show a Jewish preference for wider columns. The one Christian verse text (**133**) also fits into the CB for Johnson's

[23] Turner, *GMAW*, 7 notes that literary prose and verse texts usually had narrower columns than documents, music and commentaries, the latter often with very wide columns. He mentions his Nos 36 (*P.Oxy.* 25.2436, early II AD), 59 (*P.Mich.* 2.121r, AD 42), 60 (*BL* Pap. 131v, late I AD) and 61 (*P.Oxy.* 31.2536, II AD) as having some wide columns.
[24] For a part of *BL* Pap. 131v see Johnson, *Bookrolls*, pl. 14 (cf. my Pl. 1).
[25] Johnson, *Bookrolls*, pl. 9 (Plato, *Phaedrus*, late II AD).

'verse' group (8-14cm), as does **285 J**; but both contain poetic texts and thus their CB falls within the conventional boundaries for such literary texts.

In terms of IS, some of the 'verse' texts in my Group A are even narrower than Johnson's first set (1.2-1.8cm) (**55-2 J**, 1cm; **55-1 J**, 1cm), and **56 J** varies from 0.2cm to 1.5cm. Three prose texts in my database (**36-3**, **77-2 J**, **167 J**) fit into his wider second set for IS (1.9-2.5cm). Since **167 J** and **285 J** have even RMs, they stand out as professionally written. All of the prose texts have an ISI larger than the normal range of 2.0-4.5, which consistent with somewhat narrower IS and wider columns. Among the Jewish verse texts included for comparison, **285 J** (ISI, 3.4-10.5) includes parts outside the normal range of ISI (4.5-7.5), again implying wider columns and narrower IS. It also has a range of CB measurements, which might speak of a less professional writer; but other factors would need to confirm this, since it stands in some contradiction to its even RM. This probably shows that even professional scribes varied somewhat in certain aspects of the MSS that they produced.

In Group B the four rolls (**459**, **537**, **559**, **559-1**) may all be compared with prose texts in genre, but their CBs are all greater than 9cm, which is unusual in all three Categories of handwriting quality. Similarly, the only known sizes of the IS are within or above the normal range, especially for deluxe editions. The ISI scores are not unusual, although more like those for literary verse texts, and unusual for prose texts.

Of the two certain rolls in Group C the CB estimated for **584-1** (7.4cm) is within the limits for prose texts, as is the IS (1.8cm) and ISI (4.1). The IS for **595** (1.5cm) is also in this range. The range of CB varies widely in **537**, which may well reveal the writer as a non-professional.

The nine certain rolls in Group D have two with CB comparable to that for Johnson's prose texts (**657**, 7.5cm; **674**, 7.1cm); **654-2** fits into the narrower verse text category (8-11cm), and the rest into the broader verse text category (11-14cm) or even wider. The IS measures are spread throughout the prose text range (1.2-2.5cm), but there are two below it (**655-1**, 1cm; **671**, 1cm) and two above (**674**, 2.0-3.0cm; **700**, 3.0cm), the latter probably more a result of the broader column than arising out of a sense of

conformity with a layout for higher level literary texts. In terms of ISI, **672** (8.7-17.5) is well above the normal range for prose texts (2.0-4.5), and some others only just above. Further, **700** has a somewhat untidy LeM.
There are no definite rolls in Group E.

Of the three certain rolls in Group F (**722** Pl. 19, **911 J**, **962**) CBs are well beyond the range even of verse texts. Further, the IS of **722** (2-2.5cm) is in the upper range of normal prose texts, while **911 J** has quite a small IS (0.8-1.0cm). The ISI score for **722** (6.2-7.8) is appropriately in the range for verse texts, but **911 J** (12.2-15.3) is well above, due to its small IS.

Of the two rolls in Group G, **1070** is within the normal range, and **1069** is comparable to the narrower verse texts, despite being prose. Both of these have a slightly uneven left writing edge.

Group H has four rolls, three with relevant information: two of these (**1075**, 14.4cm; **1079**, 11-16cm) have CB approximately comparable to the wider verse texts, and **1080** is slightly above that (16.8cm). IS dimensions of all four texts fall within common limits, either the narrower or broader kind. However, the ISI results are higher than for literary texts. Further, **1079** shows an enormous range in IS (0.5-4.0cm).

Group I has thirteen definite rolls, but their dimensions are mostly not available. The CB is only available for **1158** (2.5-4.5cm), which is narrower than the normal range for prose texts. Most of the IS dimensions are within the common range for prose texts, but **1093-1 J** has a quite small IS (0.75-1.0cm). The ISI is available only for **1178**, but this fits approximately into the range for prose texts.
Group J has no rolls.

In general, it seems clear that ***the CB for most categories of Christian rolls was rather wider than for literary prose texts, and often wider than for verse texts. Perhaps the generally wider columns show that the Jews and Christians, or the copyists responsible for their reproduction, did not treat these 'sacred' works as being quite like other 'literary' texts, but still deserving of a more 'literary' look***

since they were regarded as important for their content and certainly not documentary. So, perhaps holy books were perceived and copied more in view of their religious function than as having the status of high literary merit amongst the cultured classes. Further, it would be useful to ask whose perception was uppermost in the production of a roll with this layout – that of the commissioner of the roll or the copyist responsible for actually doing the work? – but this question will not be pursued due to lack of evidence. However, it would seem reasonable to suggest that, if the copyists had perceived these works as high literature, they would have written them more in line with the current norms. But the ranges present in the CB and IS of the MSS in my database are quite similar to one another, and are probably not the result of a lack of expertise on the part of the copyists but a reflection of a view that these texts were not 'literary' in quite the same sense as high Greek and Roman literature. The MSS noted above as showing unusual features will be incorporated into Fig. 5.13 at the end of §5.3 below.

b. *Codices*

There is a small number of codices with more than one column per page, whose frequency of occurrence is given in the following two Figures (Figs 5.10, 5.11), which include those about which there is some uncertainty. See Table 11 in Vol. 2, App. 3.

Figure 5.10 **Numbers of codices with more than one column (by century start-dates)**

Century start-date	*II*	*III*	*IV*
No. of MSS with > 1 column	4	11	31
Total no. of codices	25	126	185

Figure 5.11 **Numbers of codices with more than one column (by content Groups)**

Group	*A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*
No. of MSS with >1 column	19	17	3	6	0	0	1	0	0	0
Total no. of codices	120	107	32	42	2	8	6	2	18	0

The implication of using more than one column to the page is that in similar sized codices the columns will necessarily be narrower, and thus resemble rolls to a greater degree than single-column pages would. Turner has suggested that codices with more than one column were meant to resemble high literary texts on rolls in a way in which single column pages were not.[26] In his view this shows a kind of conservatism, a

[26] Turner, *Typology*, 35-37.

desire to portray a text as being like the literary texts which had been written in narrow columns for centuries, which would explain the choice of more than one column in 'calligraphic' parchment codices, and presumably also in papyrus codices. Therefore, as a starting point we might assume that codices written in two or more columns would have a CB comparable to prose and verse texts on rolls, depending on the size of the page; and we will compare these with the sizes given by Johnson for literary rolls. However, in the case of miniature codices this would not apply in the same way, because there is so little space available for the writing area.

In Group A there are a number of codices whose CB would fall into Categories 1 and 2 in Johnson's analysis of literary prose texts (**8**, **15-1** [4 cols], **30-1** [3 cols] **52**), with some even narrower (**21-2**, **24**, **65**, **311-1**).[27] Some MSS (**4** [2 cols], **19-1**, **67**) are at the upper end of the normal range, and some (**4** [1 col.], **33**) are broader than that. The parts of codices with poetic texts (and hence fewer columns) in my database invite comparison with literary verse texts; and both of these (**15-1** [2 cols]; **30-1** [2 cols]) fit roughly into the narrower CB group for verse texts (8-11cm). However, in terms of the IS only one MS (**15-1** [2 cols]) fits into the class of deluxe verse texts with IS of 3cm or more, while the other one with clear verse layout (**30-1** [2 cols]) conforms more to the lower quality set. That this is not a fixed rule is clear from the fact that **30-1** is a very professionally written MS, so that the classes of CB referred to here are only ever 'preferred,' not prescribed. If we use the prose text dimensions for IS, **19-1** could be placed in the group with wider margins favoured for deluxe editions, but all other IS dimensions could be classed either as lower calibre verse text codices (< 3cm) or narrower prose texts (1.2-1.8cm). Thus, the dimensions of CB and IS are in the deluxe category only in the parchment codices **15-1** (Pl. 25), **19-1** and **30-1**, with all the others somewhat 'below' that in class.

It should be observed, however, that there is no evidence of prose codices with markedly narrow IS, although they mostly fall into the narrower group in which most non-deluxe editions fall, or are even slightly narrower. Some of the ISI results for these codices are above the normal range for prose texts (2.0-4.5), i.e. **4** (7.5), **30-1** [2 cols] (5.2), **33** (11.1), **67** (8.1), **311-1** (7.0), so that most of these may be seen

[27] In the case of **15-1** verse sections are in two columns and prose in four. In **30-1** verse sections use two columns and prose three.

as more cramped and less high quality productions; but this is tempered by the actual dimensions of the CB being broadly within the normal range. It is the narrower IS that makes the ISI results a little higher. Indeed, the more luxurious layouts (and lower ISI) of the verse sections of **15-1** (ISI 3.8), **19-1** (ISI 3.3) and **30-1** (ISI 3.7) are lower than the range suggested (2.0-4.5), and hence show a quite spacious layout. None of the others is as spaciously laid out, but neither are they extremely cramped. One case of interest is **4**, in which the scribe changed from 1 column to 2 columns after only 18 pages, and then proceeded to squeeze the text in using long and crowded lines, and hence very wide columns.

Of the codices in Group B only two may be compared with the prose texts with broader columns (**367**, 8.0cm; **501-1**, 10.0cm), while eleven have narrower but common CB and two are even narrower (**366**, 4.1cm; **396**, 3.5cm). This gives the impression of a general conformity to current norms for prose texts in terms of CB, with some even more spaciously laid out, and only two more cramped. In terms of their IS, five codices fit into the narrow group (1.2-1.8cm), with only **353** (2.2cm) having a more spacious layout (1.9-2.5cm). The majority are somewhat narrower in average IS (c. 1cm or a little less), which shows less of a concern to achieve spacious layout. It is of note that the ISI scores for this group are in the normal range for prose texts (2.0-4.5) in seven MSS, slightly above in four (**366**, **396**, **493-1**, **494**), and more elevated still in only three others (**356**, **367**, **501-1**). The latter two sets of MSS would confirm the view that these codices have a slightly more cramped layout.

In Group C there are only three codices which may have more than one column, although there is some uncertainty; and little information is available for their CB or IS. The little that is available shows a prose text (**598-1**, Pl. 9) with a CB (4.7cm) at the narrow end of the range, and another (**587**) with an IS (1.8cm) at the upper edge of the narrow group.

In Group D the CBs of **695** (5.5cm) and **686** (7cm) are well within normal limits, and **666-1** (8.5cm) is in the broader group. IS for prose texts is narrower in the two clear cases (**691**, 0.6cm; **695**, 1cm). The ISI for the one available case (**695**, ISI 5.5) is slightly higher than usual for prose texts (2.0-4.5). These results show the use of

slightly narrower margins in all cases and a range of CB, but there is nothing extraordinary in any of these MSS.

There are no codices with more than one column in Groups E, F, H, I or J.

The only remaining codex with clearly more than one column is in Group G (**1066-1**); but results for this MS offer little data for our discussion here.

Therefore, in terms of CB and IS in codices, there are a few codices and rolls whose dimensions conform to a luxury layout for prose and verse texts (narrow columns and wider IS). Yet ***most codices are quite comparable to the dimensions of literary prose and verse texts in general, with only a few showing a more cramped layout, and mostly not to an extreme degree***. The majority of the codices have a slightly narrow IS compared to the normal range.[28] Any MSS that are quite cramped will be included in the list in Fig. 5.13 at the end of §5.3 below.

c. *Sheets*

There are only a few certain sheets with two columns, and so their intercolumnar space will be examined here together. **246-1** has one or two columns, but it is too fragmentary to be certain. **1081** seems to have two columns on the recto and three on the verso of the one sheet. Fig. 5.12 gives details of their measurements and scores.

Figure 5.12 **Sheets with two columns**

Code No.	*CB* (cm)	*IS* (cm)	*CB / IS*
246-1	7.4cm?	0.6cm?	12.3?
1034-1	4.7cm [col. 1] / 3.3cm [col. 2]	0.7cm	6.7 / 4.7
1078	14.3	2.4-5.0cm	2.9-6.0
1081	Recto: 9.4cm [col. 1], 12.6cm [col. 2] / Verso: 5.7cm [col. 1], 13.1cm [col. 2]], - [col. 3]	2.5cm / 2.0-4.0cm / -	Various

The 'sheet' **1034-1** is a small amulet, unique for this genre in having two columns, as well as possessing a narrow CB (4.7cm / 3.3cm) and tiny IS (0.7cm). Its highly unusual form should be kept in mind in examining other features in due course, which may well highlight its atypical nature in those as well. There is some uncertainty about the dimensions of **246-1**, whereas **1081** has an enormous degree of variety on both recto and verso consistent with its textual content as a collection of magical and astrological texts. It has some generous CB measures (up to 13.1cm) like verse texts, and wide IS (up to 4cm). It is thus a very mixed production. **1078** is a magical papyrus

[28] Cf. Hurtado, *Earliest Christian Artifacts*, 165-69 on CBs in early Christian codices.

with various diagrams and drawings as well as textual content, and as such shows the kind of variety in these matters that we would expect for papyri of this kind. Its CB is wide like verse texts (14.3cm), and its IS is generous (2.4-5.0cm) but not out of proportion since the ISI ranges from 2.9 to 6.0. The variation in IS is of note in **1078** and of both CB and IS in **1081**.

Thus, ***the majority of these sheets tend to exhibit a range of sizes of CB and IS, as well as the kind of irregularity that we might expect from magical texts*** – except for **246-1**, which is a hymn and liturgical text about which little is known in terms of its CB or IS, given that it is unclear if it has two or three columns.

In conclusion, then, when the MSS were examined in terms of their CB and IS, the following MSS yielded results that might indicate non-professional production (Fig. 5.13), omitting Groups E and J which have no MSS listed. Again, this information should only be used to confirm the original assessment of the hand of the MSS and other features (as given already in Fig. 4.18), not to suggest that non-professional production is a necessary conclusion to be drawn on the basis of CB and IS alone.

Figure 5.13 **MSS possibly produced by a non-professional writer (based on CB and IS)**

Group A	**4**, **33**, **55-1 J**, **55-2 J**, **56 J**, **67**, **285 J**, **311-1**
Group B	**367**, **501-1**
Group C	**537**
Group D	**672**, **674**, **700**
Group F	**722** (Pl. 19), **911 J**, **962**, **1034-1**
Group G	**1069**, **1070**
Group H	**1075**, **1078**, **1079**, **1080**, **1081**
Group I	**1158**

Apart from those listed above, the rest of the MSS in my database show a CB and IS consistent with having been produced by a professional scribe.

5.4 **Pagination**

In this section we turn to examine those codices in my database that contain original pagination by the hand that produced the text on that page, in order to see if there are any discernible patterns of usage which might indicate the hand of a non-professional copyist. Their range of distribution is as follows (Fig. 5.14), noting that the absence of page numbering may simply be for lack of evidence due to the fragmentary state of

the MSS. However, I have still included the total number of codices in the periods designated, and tabulated the frequency according to the century start-date for each MS in each Group, with the number of definite codices in brackets. Pagination by later hands and uncertain pagination is not included here. Bearing in mind that the MSS are only categorised according to start-date (in the range of possible date of copying), we should note that clear distinctions between periods is not always certain. There are no codices with surviving pagination in the period II BC – I AD. The total number of codices in each Group and century start-date is given in brackets. A dash indicates no data due to there being no MSS in that Group and start-date set. Full details are provided in Table 12 in Vol. 2, App. 3.

Figure 5.14 **Numbers of codices with original pagination**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*Totals*
II AD	4 (13)	0 (8)	1 (3)	0 (1)	-	-	-	-	-	-	5 (26)
III AD	5 (40)	11(49)	5 (8)	6 (18)	-	-	1 (2)	-	1 (8)	-	29 (125)
IV AD	11 (67)	8 (49)	2 (21)	4 (23)	0 (2)	1 (8)	1 (4)	1 (2)	1 (10)	-	29 (186)
Total	20 (120)	19 (107)	8 (32)	10 (42)	0 (2)	1 (8)	2 (6)	1 (2)	2 (18)	0 (0)	63 (337)

In Groups A-D, while the number of extant codices with pagination does rise (on the whole) from II to IV AD, there is a rise in numbers and in proportion in Group A whereas in Groups B-D the numbers of MSS and proportion actually go down from III to IV. The numbers involved are fairly small (especially in Groups C and D), but it appears that the occurrence of page numbering in these Groups actually declined in that period. Original pagination is absent from the deluxe parchment editions of the fourth century (**15-1**, **19-1**, **30-1**), perhaps due to the fact that the scribes responsible for the later sections would not have known what page numbers to insert in their part. Admittedly, the number of MSS is small, but from the available evidence it is clear that page numbering also occurred to some degree in the small numbers of codices in Groups E-J (III–IV AD). For these Groups, however, there is not enough evidence to allow us to determine any rise or fall in their frequency of occurrence over the period II–IV AD.

By way of comparison, a search of *Leuven Database of Ancient Books* for papyri with pagination yielded the following results in the numbers of MSS, with total number of entries for Greek codices of all kinds in brackets (Fig. 5.15). Although the latter numbers are somewhat inflated due to multiple centuries given for single codices, this

still gives some indication of the proportions involved. The periods are century start-dates.

Figure 5.15 **Numbers of codices with pagination (Christian and not Christian)**

	Christian	*Christian (%)*	*Not Christian*	*Not Christian (%)*
II AD	10 (30)	33.3%	3 (77)	3.9%
III	20 (136)	14.7%	17 (262)	6.5%
IV	20 (215)	9.3%	12 (332)	3.6%

The differences between the first column of this Figure and the totals of codices given above in Fig. 5.14 (II AD: 5; III: 29; IV: 29) are largely the result of my own database casting the net wider in its definition of 'Christian' to include, for example, Gnostic and Manichaean works, as well as magical texts with some Christian language and a number of other texts that were possibly Jewish rather than Christian (although the evidence is not conclusive). Also the *LDAB* does not distinguish the instances where it was a later hand that has added the page numbers. Further, my results do not take into account the fragmentary nature of many papyri; so again the tallies must be taken with some caution. However, the evidence suggests that codices containing Christian works had a higher proportion with pagination than those containing works that are not Christian. As well, although again the results may be somewhat inflated due to multiple entries for individual MSS, there seems to have been a decline in the proportion of Christian papyri with pagination. Overall, pagination may be seen to have been unusual in both Christian works and those that were not Christian, which points to a similarity between the two groups, despite the disparity in proportions. Aside from the small group of Christian MSS from the II AD, the proportion of all codices with attested original pagination is less than 15%. This demonstrates that ***it was quite normal not to insert pagination in codices containing either Christian or non-Christian texts. Although an argument from silence, this commonality suggests that the copying of Christian codices was not vastly different in general from the copying of literary works that were not Christian, which in turn implies a similarity in scribal practice***. The insertion of pagination might be seen as an indication of a higher level of professionalism in codex production; but this does not follow automatically, and needs to be confirmed by a study of other features of the MSS.

The pagination that occurs in the MSS in my database is always in the UM, as was the common custom. However, we can also ask where the page numbers were placed in

the UM, and Fig. 5.16 presents the results below. 'Right' refers to the pagination as being on the right hand side of the available page when it is difficult to be certain that this was on the outer edge of the page (although this is obviously most likely). Pagination by later hands has not been included but uncertain results are included here. A dash shows that there is no data available for that set of MSS.

Figure 5.16 **Numbers of MSS with pagination (grouped by position)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*
Centre	12	15	6	7	-	-	2	1	1	-
Outer	6	4	2	2	-	1	-	-	1	-
Right	2	-	-	1	-	-	-	-	-	-

In Groups A, B, D, F and I the use of the outer edge for pagination only occurs from III AD, and evidence is lacking for Groups E, G, H and J. If this evidence is to be depended on, placing the page numbers centrally was much more common overall; but from III AD some copyists began to use the outer edge of the page, although only a few MSS from II AD contain any pagination at all (**13**, **47-1**, **52**, **61-1**, **118**, **315**, **426**, **594**, **667-1**). Of these only in **426** (*m*.2?) and **594** is the pagination in the OM.

We may also note whether the Greek letter(s) standing for the number had a superior *makron* or any other sign with the letter, such as A′. The results in terms of numbers of MSS are as follows (Fig. 5.17).

Figure 5.17 **Numbers of MSS with *makron* above page numbers**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*
No makron	14	18	6	9	-	-	1	1	2	-
Makron	7	1	2	1	-	1	1	-	-	-

One MS (**118**) notably varies between having and not having a superior *makron* (perhaps by oversight), so it has been counted in both categories under Group A. The Figure shows that the use of the superior *makron* above the letter for the page numbers was quite uncommon, as far as the evidence goes, and there does not appear to be any trend in the use of the *makron* becoming more or less common. This is notable, since letters which served as numerals in Greek, while not normally found in literary papyri, often did have some sort of annotation such as a superior *makron* or a short superior oblique stroke following.[29] Presumably, the placement of the letter in the UM was a clear enough sign that a numeral was intended, rather than a letter, so

[29] Turner, *GMAW*, 15. These were two of several markers used widely (in time and provenance) in Greek inscriptions.

no *makron* or other sign was absolutely needed, even if one was added at times. The addition of a superior *makron* (or the like) may perhaps indicate that the copyist was accustomed to abbreviating numerals in this way, and was thus more at home with 'documentary' texts, where such abbreviations were common, than literary ones. In turn, this would imply that the copyist was a professional scribe.

We could examine which codices had page numbers added by a later hand, but this would not serve our purpose of studying the work of the original copyist. However, two codices in particular deserve attention here. First, the *Bodmer Miscellaneous Codex* (**138**+**548**+**557**+**569**+**599**+**611**+**678**+**681**+**710**) is clearly an assemblage of the remnants of other codices, since the pagination is not uniform throughout, and seems to begin anew three times.[30] **138** has no pagination evident because the tops of all the folios are missing, but there is pagination in the remainder of the codex, and so probably also there; hence the use of square brackets in Table 12. Some parts may have had pagination added by the final binder; but that could not be true for all the pagination, since it is not uniform. This codex shows how matters such as pagination could at times be added later on; and in this case there does seem to have been an attempt (for some reason) to use the pagination to create the impression of one codex. Perhaps pagination was added for ease of reference – although this may be a modern perspective – yet it was not by any means a standard addition to every codex. Second, the *Chester Beatty Miscellaneous Codex* (*P.Beatty* VIII, **578**+**579**+**677**) also contains a mixture of works (Enoch, apocryphal Ezekiel, and a work by Melito), but seems to have been originally copied as one collection. However, the pagination has been added by a different hand, as with other MSS, perhaps because that was the fashion at that time.

For this feature, then, I conclude that ***the rarity of pagination on MSS in my database is fully in accord with how MSS in general were copied. The fact that a superior makron was sometimes added to the Greek letters shows an acquaintance with the practice of writing numerals as letters, which occurred more in documentary texts as a means of abbreviation than in literary ones***. This is consistent with the codices commissioned by Christians often being copied by those who were aware of the

[30] Testuz, *P.Bodm. VII–IX*, 8.

tradition of writing letters for numerals, frequently with a superior *makron*, but also with the general practice of pagination by letters as numerals. Since the pagination, when used, was almost always indicated in the upper marginal space, either centrally or at the outer edge (but normally not outside the line of writing), this provides further evidence that those who added such pagination were aware of the normal practice in the copying of MSS. Their knowledge of the conventions of copying meant that they conformed to them as a matter of course, unless there was some reason to depart from them. Of the codices which contain pagination, the only MS that might show signs of having been written by a non-professional writer is **118**, since there is variation in using a superior *makron*. Otherwise, the insertion of pagination (where it occurs) would seem to show that a trained scribe has been at work.

Thus, a scribe who was used to writing tax or census materials in an administrative context may have been confronted with the request to produce a copy of a continuous narrative text (such as a Gospel), letter, or poetry (like a Psalm MS) for an individual who would pay for the work. Would he have simply copied what was in front of him, or massaged it according to his understanding of the type of text it was – literary or verse, etc.? Would he also have massaged it (unconsciously) by applying some of the documentary conventions that he was used to, such as pagination. Perhaps the array of early Christian MSS reflects a series of 'slides' between literary and documentary characteristics. The fact that all the MS are not identical would then represent the different reactions of the various scribes approached early on (in late I and II AD) to make copies. Once these texts began to be 'universally' accorded status in Christian groups, the characteristics imported into those very early MSS became a settled feature in later copies; that is, they too received 'canonical' status because they were now conveying sacred texts. At least this would seem a possible scenario of how some of these features came to be used and retained in the MSS now at our disposal.

5.5 **Conclusion**

We have reviewed features of the page layout of the MSS in my database, in order to see if there might be indications of non-professional production. From the analyses above, a number of MSS may well exhibit such indications; and these were cross-checked with the list of MSS at the end of Ch. 4 (Fig. 4.18). Those MSS on that list which now also appear listed at the end of §§5.1-5.4 are given in Fig. 5.18 below.

Some have been confirmed as belonging to the non-professional group, and thus remain in red type. Those which have been newly confirmed as members of handwriting Category 3 or 3^+ are now given in blue type. The only difference is that **118** (*m*.2) is now added to Category 2^-, instead of its original assignment to Category 2^+. The MSS in Category 2^- are again retained (in black type) as a reminder of their 'borderline' status; and their significance will be discussed in the Summation of Part B. In Chs 6 and 7 we will examine other characteristics, in order to see if this list of MSS is established in other ways as well.

Figure 5.18 **MSS in Categories 3 / 3^+ and Category 2^- of handwriting quality (confirmed by features examined in Ch. 5)**

	3	*3⁺*	*2⁻*
		Group A	
II			**118**
III			**4**, **7**, **30**, **44** (Pl. 20), **62**, **77-1**, **81-1**, **263**, **269**, **273-2**, **286**
IV	**87-2**, **136**, **205**, **220**, **239**, **255**	**132-1**, **134-1** (Pl. 33), **246-1**, **308** (Pl. 34)	**3**, **90**, **133**, **138**, **143**, **170-1**, **195**, **239-2**, **263-1**
		Group B	
II AD			**559-1** (Pl. 8)
III	**347** (Pl. 24), **548**, **557**, **559**	**441**, **522**, **537**, **558**	**380**, **430-1**, **444**, **459**, **461-1**, **467-1**, **488**, **521-1**, **536**, **547**
IV	**345**, **359** (Pl. 36), **482**, **490**, **539**, **554**	**378**, **511**, **562**	**342-1**, **451**, **538-1**
		Group C	
II AD			**581**, **592**, **594**, **598-1** (Pl. 9)
III	**569**		**587-1**, **589**, **593**, **611**
IV			**578**, **579**, **580**, **584-1** (Pl. 31), **584-2** (Pl. 32), **584-3**, **585**, **604**
		Group D	
II AD		**657**	
III		**672**, **682**	**624**, **695**, **700**
IV	**667**	**658-1**, **677**, **693**	**626**, **648**, **648-1**, **654-1**, **661**, **698-2**
		Group E	
IV	**715-2**	**704-1**, **710-1**	
		Group F	
III	**733-2**, **968**, **1035**	**847**	**722** (Pl. 19), **1036**, **1037-5**
IV	**728**, **739**, **849**, **892-7**, **892-8**, **893**, **902**, **914**, **918**, **918-3**, **948**, **949-1**, **953**, **967**, **971**, **996-1 J**, **1050**	**844**, **862**, **863**, **864**, **918-1**, **918-4**, **949-2**, **955**	**895**, **921**, **948-3**, **951**, **1034-1**
		Group G	
III	**1065-1** (Pl. 22)		**1066-6**
IV		**1067**	
		Group H	
II AD	**1079-2** (Pl. 11)		
III			**1077**, **1081**
IV	**1073**, **1078**, **1080**		**1080-1**
		Group I	
III		**1154** (Pl. 21), **1178**	**1141-1**, **1146-3**
IV	**1091**	**1093**, **1126-6**, **1148**, **1150-4**	**1131**, **1147**, **1188-1**

A summary is appropriate here of the findings arrived at during this chapter on the basis of my analysis of these aspects of the MSS. ***The great majority of MSS in my database were copied by trained scribes who were aware of the conventions of MS page layout – column breadths and heights, margin sizes and the like – and conformed to them in various ways.***

Chapter 6
AIDS FOR READERS

This thesis concerns the manner in which Christian MSS were copied, that is, the way in which copyists actually wrote MSS and the professionalism and commitment which they brought to the task. Although it is not true of certain kinds of MSS, most books were produced primarily to be read. The present chapter considers elements employed by some copyists of early Christian MSS, apparently in order to offer assistance in this task of reading.[1] Three matters deserve comment at the outset.

First, we noted in Ch. 3 (§3.3h.iii) that most literary MSS in the early Roman Imperial period were written in *scriptio continua*, so that reading them may not have been easy, especially for less practised readers. Do Christian texts conform to that general pattern? If we examine the MSS in my database, it is evident that *scriptio continua* was undoubtedly the norm. Only seven MSS have any spacing between words: **36-3** (III AD), **52** (late II AD),[2] **77-2 J** (I/II AD), **285 J** (*m*.2; I BC – I AD), **966-1** (IV AD),[3] **996-1 J** (IV/V AD), **1067-1** (late IV – V AD). Three of these are Jewish, and in **996-1 J** the spacing is only *possible*; so only four Christian MSS have some spacing, and that only occasionally. For example, **1067-1** has spacing between some words (probably to assist the lector in singing a hymnic text). Two MSS contain some spacing between certain groups of words: **57 J** (*P.Ryl.* 3.458) and **462** (*P.Ryl.* 3.457).[4] The paucity of examples of MSS in my database with regular and clear spacing between words shows that, at least up to the end of the fourth century AD, almost all Greek MSS of Jewish and Christian texts were written in *scriptio continua*, like most

[1] On lectional aids in general see Roberts, *Manuscript*, 21-22; T. Dorandi, 'Lesezeichen,' *NP* 7 (1999) 88-92, *BNP* 12 (2008) 199-203; Johnson, *Bookrolls*, 15-16, 35-36, 58-59.

[2] An example may be cited from folio 69v, col. 1, l. 5 where there seems to be a space between CE and KAI. Turner, *GMAW*, 7, n. 28 also refers to *P.Beatty* V, Pap. 6 (my **52**), but does not mention any example. In any case, the use of word division is certainly spasmodic, as the plates show. Turner refers there to a '*tendency* to divide' (my emphasis), presumably because this was not common.

[3] Pickering, 'A new papyrus text of the Lord's Prayer,' *NTTRU* 2 (1995) 111-12 discusses **966-1** (*P.Oxy.* 60.4010; IV AD), noting some spaces between words 'presumably so that the reader would have to expend less mental effort in dividing the words during the act of reading.'

[4] Cf. L. Hurtado, 'The NT in the second century: text, collections and canon,' in J.W. Childers, D.C. Parker (eds), *Transmission and Reception. NT text-critical and exegetical studies* (*Texts and Studies*, 3rd Series, 4; Piscataway: Gorgias, 2006) 3-27, here 11-12.

other literary MSS.[5] In this chapter we will examine what assistance was provided to readers of the MSS in my database, perhaps especially to those reading such texts in *scriptio continua* in public.

Second, it should be noted as a significant factor that the literary level of the texts, and whether they were the kind of texts which would be read out in public, would almost certainly have influenced the way in which they were copied. In this chapter we will observe the differences between the ways in which various types of texts were copied, especially as this bears on the issue of the professionalism of the copyists. Where possible, I have included the Jewish MSS in Greek from II BC to I AD for purposes of comparison.

Third, it has been suggested that a range of readers' aids is evident in Christian MSS. In contrast to other MSS, Christian MSS from this period are said to begin to have larger letters, fewer letters to the line, and fewer lines to the page,[6] as well as a greater use of punctuation, breathing marks and accents.[7] Others point to the use of sense-lines as evidence of this concern to assist with the task of reading.[8] Still others refer to the writing of material in narrow columns so that the reader's eye could scan ahead more easily;[9] but this would militate against fluid reading just as much, since words would be broken between lines. In this chapter we will study the readers' aids that appear in the MSS on my database, in order to evaluate such claims and to see if their usage has any bearing on our study of the level of professionalism with which they were reproduced. We will discuss whether readers' aids have been employed in a uniform way, and evaluate the claim that they became more widespread, as well as noting any irregularities of other kinds.[10] Such irregularities may well have been the result of experimentation and innovation on the part of writers of all types; but if they are extreme they may show that a non-professional writer has copied a MS.

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[5] Cribiore, *Writing*, 49, n. 109 cites a few other papyri which show some separation between words, as well as her Nos 229, 292 (teachers' models), and 286, 292, 296, 313, 321, 342 (probably student and teacher) (nn. 110, 111). But these are not really comparable to the issue under discussion here.
[6] Turner, *Typology*, 84-87 cites my **405** ($\mathfrak{P}^{75}$) and **426** ($\mathfrak{P}^{66}$; see my Pl. 4) as examples of these tendencies.
[7] Turner, *GMAW*, 144. Gamble, *Books and Readers*, 74, 276 (n. 119) refers to my **33** (*P.Bad.* 4.56), **55** (*P.Ryl.* 1.1), **315** (*P.Beatty* VII, Pap. 9/10), **482** (*P.Yale* 1.3) and **657** (*P.Mich.* 2.130) in this context.
[8] Gamble, *Books and Readers*, 229-30.
[9] Johnson, 'Reading Cultures,' 15. Cf. id., 'Sociology of Reading,' 610-12.
[10] Cf. Hurtado, *Earliest Christian Artifacts*, 177-85.

6.1 **Titles and headings**

A Greek roll or codex sometimes bore the title of the work included, and when there was more than one work or more than one section, the individual works or sections might be given titles as an indication of larger components.[11] These occur at the beginning or end of a work or section, and sometimes at both beginning and end. However, it is those very parts of a papyrus – at the extremities – which are most often lost, and with them perhaps the evidence for the existence of titles at beginning or end. We will examine how frequently titles and headings occur in the MSS in our database, noting the number of MSS that *do* contain titles (actual) in comparison with the total number of MSS that *could* have had a title (potential) in the extant section. The latter tally includes the former, of course, so a percentage will be given for the frequency of inclusion of titles, as far as the evidence allows. MSS are excluded when there is no evidence because their relevant parts are not preserved. The MSS are grouped by century start-dates below (Fig. 6.1a), with the total number of MSS in that period added for reference so that it is clear how many MSS contain evidence with regard to the inclusion of titles. A dash indicates that evidence is lacking. As in many Figures in this chapter, a slash (/) indicates one number divided by the other. A detailed list of the MSS possessing titles and headings is given in Table 13b in Vol. 2, App. 3.

Figure 6.1a **Numbers of MSS with titles and headings (by century start-dates)**

	II	*I BC*	*I AD*	*II*	*III*	*IV*	Total
No. of MSS with actual titles	-	-	-	7	25	36	68
No. of MSS with potential titles	-	-	-	8	27	43	78
No. of MSS with actual / No. of MSS with potential (as %)	-	-	-	87.5%	92.6 %	83.7 %	87.2 %
Total no. of MSS	3	9	4	41	184	275	516

The available evidence shows that in MSS where titles or headings were appropriate and possible, they were much more likely to be present than not, although there is no proof that they were becoming more common over the period in view. More detailed date-range tallies are given in Table 13a,[12] and special note should be taken there of those clusters of ten or more MSS in time periods, such as ten out of eleven MSS

[11] Turner, *GMAW*, 13-14; Cribiore, *Writing*, 79-80.
[12] The reader is reminded at this point that all Tables occur in Vol. 2, App. 3.

(90.9%) for III AD. The clusters of ten or more MSS were chosen to give some indication of a group of MSS with a statistically significant number. Although the choice of ten in itself is arbitrary, it provides some way of comparing the frequency of occurrence of features in the MSS in a consistent way, and will be used throughout this chapter. In the present instance of titles and headings, these clusters of ten or more MSS only serve to confirm the above assertion that titles and headings were inserted, where appropriate, much more often than not. There is no evidence with regard to the Jewish MSS from II BC to I AD, due to their fragmentary state or to the nature of the texts which they contain.

It is also instructive to put the number of MSS into their content Groups, in order to see how the conclusion reached with regard to the high frequency of titles and headings in the MSS applies across those Groups. The data is presented below in summary form (Fig. 6.1b).

Figure 6.1b **Numbers of MSS with titles and headings (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*Total*
No. of MSS with actual titles	28	8	7	16	1	4	-	1	3	-	68
No. of MSS with potential titles	36	10	7	16	1	4	-	1	3	-	78
No. of MSS with actual / No. of MSS with potential (as %)	77.8	80.0	100	100	100	100	-	100	100	-	87.2%
Total no. of MSS	171	116	39	54	4	58	14	11	47	2	516

The results for Groups A-D show how common the use of titles was, where there is evidence, and even for the small number of MSS in Groups E-J the results are telling. Group A shows this clearly with a comparatively large number of MSS. It should be noted, however, that 23 of the 36 MSS which potentially could have contained headings are Psalm MSS. Further, 17 of those 23 actually do contain headings – that is, 17 of the 28 MSS with headings are Psalm MSS (73.9%) – so this distorts the results considerably. Psalm MSS in Greek mostly did have titles for each Psalm, since they reflected the titles already present in the Hebrew text and also because there was some need to indicate the beginning of a new Psalm. Almost by necessity, then, Psalms showed where they began and ended with some kind of heading. However, even allowing for this distortion in Group A, and despite the fact that evidence is lacking for a large proportion of the MSS on the database, I conclude that we may

extrapolate that ***titles and headings were used in the majority of MSS***. Still, there is no observable trend that they became more common.

6.2 *Paragraphoi* and other section markers

The *paragraphos*, as well as the *forked paragraphos* (or *diplê obelismenê*), served to mark the end of one major section and the beginning of another.[13] In **44** (Pl. 20), **227-1**, **516**, **642**, **688** and **722** (Pl. 19) the *diplê obelismenê* appears as a section marker in an assortment of forms. Other section markers include chapter numbers, spacing, *ekthesis* and/or enlargement of initial letters, the *dicolon*, perhaps the *diplê*, and the *coronis*.[14] Such section markers were not used frequently (and when they were, not with consistency): my tallies for the number of MSS which do include them are given below in terms of their century start-dates (Fig. 6.2a). A detailed list of MSS which include these signs is given in Table 14b in Vol. 2, App. 3, and they are listed in more detailed time periods in Table 14a.

Figure 6.2a **Numbers of MSS with section markers (by century start-dates)**

	II	*I BC*	*I AD*	*II*	*III*	*IV*	*Total*
No. of MSS with section markers	1	5	1	11	39	55	112
Total no. of MSS	3	9	4	41	184	275	516
No. of MSS with section markers / Total no. (as %)	33.3	55.6	25.0	26.8	21.2	20.0	21.5

If we ignore the Jewish MSS (II BC – I AD), there is no evidence that section markers became more common from II AD to IV AD. In fact, in percentage terms their usage seems to have decreased slightly from III to IV AD, and the small number in the sample of MSS from II AD may make the comparison with those from III and IV AD doubtful. The details given in Table 14a, noting especially clusters of ten or more MSS, show the following ranges: II (16.7-40.0%), III (12.2-26.8%), and IV AD (7.1-22.5%). Again, there is no evidence of an increase of MSS with section markers, so the percentage of MSS with such section markers stays fairly low and may even decrease from the second to the fourth centuries. The available evidence shows that

[13] Cf. E.M. Thompson, *An Introduction to Greek and Latin Palaeography* (Oxford: Clarendon, 1912) 58-59; R. Devreese, *Introduction à l'étude des manuscrits grecs* (Paris: Klincksieck, 1954) 26-29; R. Barbis, 'La diplè obelismene: Precisazioni terminologiche e formali,' *PapCongr.* XVIII (1984), 473-76; Turner, *GMAW*, 8, 12; R.B. Lupi, 'La *paragraphos:* analisi di un segno di lettura,' in *PapCongr.* XX (1994) 414-17; W.A. Johnson, 'The function of the paragraphus in Greek literary prose texts,' *ZPE* 100 (1994) 65-68; Cribiore, *Writing*, 81-82; On oblique strokes in papyri see Cribiore, *Writing*, 48, n. 108.

[14] Cf. Cribiore, *Writing*, 83.

paragraphoi and other section markers were never common in II–IV AD, and there is no evidence that they became more common. If anything, they were used slightly less as time went on.

If we put the MSS into their content Groups (Fig. 6.2b), does the data confirm the conclusion reached above that the percentage of MSS which include these signs is low across the Groups in a uniform way?

Figure 6.2b **Numbers of MSS with section markers (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*Total*
No. of MSS with section markers	33	24	10	20	1	6	3	6	8	0	105
Total no. of MSS	171	116	39	54	4	58	14	11	47	2	516
No. of MSS with markers / Total no. (as %)	19.3	20.7	25.6	37.0	25.0	10.3	21.4	54.5	17.0	0	20.3

In Groups E-J the numbers are not large enough to permit conclusions; but there are significant numbers of MSS with section markers in Groups A (19.3%), B (20.7%), C (25.6%) and D (37%). While these are considerable proportions, they are not large, and the majority of MSS in these groups contain no evidence of section markers. Thus, ***the evidence shows that paragraphoi and other section markers were never common in the Groups of MSS on my database.*** It is not possible to specify MSS with more regular use of such section markers, since their insertion was never consistent.

6.3 **Sense lines and stichometric layout**

Some MSS were written in 'sense lines,' with each sense unit allotted one line, so that, even if the sentence carried straight on, a blank space was left at the right hand edge. Also, poetic texts were often laid out in the form of 'verses,' so that if one 'verse' was too long to fit into a line of writing, it continued on subsequent lines and was often indented (once, or even twice if the second line was not long enough to contain all the verse); or a blank space was left at the end of a line to show that a new verse would begin on the next line.[15] These two matters are treated together here, because they both use spacing and new lines to divide the sense of a text. The numbers of MSS with sense lines or stichometric layout are given below (Fig. 6.3a).

[15] Cf. Ohly, *Stichometrische Untersuchungen* (1928); Thompson, *Introduction*, 67-69; Devreese, *Introduction*, 61-65; Turner, *GMAW*, 16-17; D. Obbink, *Philodemus, On Piety*, Part 1 (Oxford: OUP, 1996) 62, n. 1; Cribiore, *Writing*, 87-88; Lang, 'Schreiben nach Mass,' 40-57.

Details are provided in Table 15 in Vol. 2, App. 3, in terms of both start-dates in Table 15a and content Groups in Table 15b.

Figure 6.3a **Numbers of MSS with sense lines or stichometric layout (by century start-dates)**

	II	*I BC*	*I AD*	*II*	*III*	*IV*	*Total*
No. of MSS with sense lines etc.	0	3	0	6	15	41	65
Total no. of MSS	3	9	4	41	184	275	516
No. of MSS with sense lines etc. / Total no. (as %)	0	33.3	0	14.6	8.2	14.9	12.6

Thus, in MSS with start-dates from II BC to IV AD the proportion with sense lines or stichometric layout seems to be least in III AD (8.2%), but always quite low in II–IV AD. Perhaps there was a real increase of usage in MSS of IV AD, but ***on the whole the use of such sense lines or stichometric layout was not a common phenomenon*** (15% or less); and the more detailed tallies for clusters of ten or more MSS (given in Table 15a) are still quite low, ranging from 0% to 30%, and mostly 20% or less. Fig. 6.3b presents the frequency of these features in content Groups.

Figure 6.3b **Numbers of MSS with sense lines or stichometric layout (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*Total*
No. of MSS with sense lines etc.	55	2	5	0	0	2	0	0	1	0	65
Total no. of MSS	171	116	39	54	4	58	14	11	47	2	516
Sense lines etc. / Total no. (as %)	32.2	1.7	12.8	0	0	3.4	0	0	2.1	0	12.6

The percentage of MSS with these features in their Groups is generally small, with Group C having a notable 12.8% with sense lines, etc. However, Group A is quite different, as 32.2% of MSS contain these features. This is not surprising, since that Group contains OT MSS, many of which are poetic texts, including 54 Psalm MSS, as well as 51 Wisdom and Prophetic texts. This total of 105 hymnic or prophetic texts out of the 171 OT texts (61.4%), would easily account for the large proportion of texts with sense lines or stichometric layout. In fact 50 of the 55 MSS with stichometric layout etc. are from this group of texts, and at least three of the remaining five have verse sections in poetic layout. So, ***the use of stichometric layout and sense lines is mainly confined to poetic texts***, almost all of them OT texts. There may have been a drop in usage of this feature in the third century, but the numbers are too small to draw a firm conclusion in this regard. Their use was always quite uncommon.

It should be observed that the limited use of stichometric layout by Jewish scribes might imply that they had their own way of laying out verse texts, as the use of spaces in **5-1 J**, **55-1 J** (noted under punctuation below) and **56 J** seems to indicate. This may assist in distinguishing between Jewish and Christian OT MSS in the period after I AD; but since it is not an absolute rule, it could only ever be a confirmation of a conclusion reached on other grounds, rather than conclusive evidence on its own.

Since there is only a little evidence for such layout in Jewish OT MSS, it should be asked why Christian MSS often exhibit a different layout. Would a professional scribe, confronted with the task of copying a series of Psalms, have viewed them as 'verse texts' in quite the same way as Greek verse texts? While such Hebrew poetic texts were not written in the same metrical pattern as Greek verse, their particular kind of repetition and the use of comparison and contrast would at least have alerted the copyist to the fact that they were not written in straightforward prose. Perhaps the Christians, or those who copied their texts, were showing an awareness of the appropriate layout for Greek verse texts, and applied this to the LXX texts being reproduced. However, it is unlikely that, apart from the specific direction of the person commissioning a copy of the text or without a pattern to copy, the insertion of verse layout would have occurred, given the lack of metrical resemblance with classical texts. These patterns may have developed in Christian circles in an attempt to distinguish between 'poetic' and prose texts in a similar, but not identical, way to their being some signs of a different layout in a few Jewish MSS, as they tried to produce copies of OT verse texts in Greek.

It might be asked whether such texts were written in this way in order to facilitate their reading. Poetic texts written in *scriptio continua* might have been more difficult than straightforward prose for a reader's eyes to scan ahead, due to the greater complexity of style. So, we might imagine that while producing his MS, the copyist had the reader in mind, as well as the difficulty which he might encounter in performing his task. However, this suggestion will have to be left in the realm of speculation, because it may equally have been that, since verse texts like Psalm MSS often contained smaller sense units, they were actually easier to read. Indeed, it is likely that if a copyist were being paid, he saw his task in more pragmatic terms: to copy the exemplar before him accurately, and to receive his fee.

6.4 **Punctuation**

Strictly speaking, 'punctuation' (< Lat. *punctum*, 'point') was added to Greek MSS in the form of points, sometimes written on the line (in low position) or above the line (in middle or high position). Usually a single point was used, but sometimes a double point (*dicolon*), and rarely some form of space was left to indicate the end of a sentence or a significant break within a sentence.[16] Thus, punctuation served to indicate a pause of some kind in the flow of the content; and so there is a certain overlap with the previous two sections (§§6.2, 6.3), because *paragraphoi* etc. and spacing were used to indicate larger pauses between sections or within long lines of verse. This will not affect the general conclusions drawn, however, since the overlap is small. The tallies for the numbers of MSS which contain punctuation marks of some kind are given below (Figs 6.4a, 6.4b). Details of the numbers of MSS in my database containing punctuation and the nature of that punctuation are provided in Table 16 in Vol. 2, App. 3.

Figure 6.4a **Numbers of MSS with punctuation (by century start-dates)**

	II	*I BC*	*I AD*	*II*	*III*	*IV*	*Total*
No. of MSS with punctuation	1	3	1	16	73	132	228
Total no. of MSS	3	9	4	41	184	275	516
No. of MSS with punctuation / Total no. (as %)	33.3	33.3	25.0	39.0	39.7	48.0	44.1

Jewish MSS from II BC to I AD evidently included punctuation sporadically. From II to IV AD, punctuation occurs in significant proportions of Christian MSS (39-48%). Thus, ***punctuation of some kind was a much more common element in the MSS than the other features examined in this study so far***, with the exception of the use of titles and headings. The more detailed tallies in Table 16a for clusters of ten or more MSS are II AD (40-50%), III (33.8-48.4%), and IV (44.8-57.1%), showing a significant use of punctuation. The difference between usage of punctuation in II and III AD is minimal, but there is evidence of a notable rise in its use in the fourth century.

[16] Cf. Thompson, *Introduction*, 60; Turner, *GMAW*, 8-10; Cribiore, *Writing*, 81-83; Johnson, *Booksrolls*, 7-8, 15-16, 35-36, 58.

Figure 6.4b **Numbers of MSS with punctuation (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*Total*
No. of MSS with punctuation	80	64	18	27	4	13	6	2	15	0	228
Total no. of MSS	171	116	39	54	4	58	14	11	47	2	516
No. of MSS with punctuation / Total no. (as %)	46.8	55.2	46.2	50	100	22.4	42.9	18.2	31.9	0	44.1

The results for the MSS in their content Groups show that the use of punctuation was markedly higher in Groups A-E and lower in Groups F-J. Group G (Gnostic and Manichaean texts) has a higher proportion of MSS with punctuation, perhaps because those texts are mostly 'literary' in nature; but there may well have been other factors. The small number of MSS in Group G, however, should caution us about drawing firm conclusions here. The proportion is less in Group F, probably because it includes a large number of amulets, which were for personal and private use, and thus their production was much less formal in many instances. There are fewer in Group I, but the nature of this group as a random collection of unidentified texts should warn us about using this to draw conclusions about usage patterns in that Group. Therefore, ***in 'literary' texts punctuation occurred in about half the MSS, and thus was quite common, becoming slightly more common in the fourth century***.[17]

6.5 *Diaeresis*

The *diaeresis* (or *trêma*) was used in the form of two dots placed horizontally above vowels (mostly I and Y), although it is also represented infrequently as a single point or short *makron* above the vowel. It was placed at the beginning or in the middle of words to make a distinction (διαίρεσις) between one vowel (mostly I or Y) and another which might otherwise be read together as a diphthong.[18] However, this is not the only use to which *diaereses* were put. Sometimes they were placed over other vowels, or two *diaereses* were placed over successive vowels (especially over Y and I in YIOC). As with other punctuation marks, the *diaeresis* was never consistently applied, even in individual MSS, so we cannot say much about the proportion of *diaereses* employed in a given MS. In terms of the century start-dates assigned to

[17] Johnson, *Bookrolls*, 8 refers to punctuation as 'part of what was traditionally copied, part of the paradosis.' Contrast the situation for Hebrew MSS, where some scribes seem to have felt free to change section divisions (Tov, *Scribal Practices*, 150).

[18] The issue that two vowels might be combined into a diphthong was acute with these two letters (I, Y), since they are the only two letters which come second in a diphthong. Cf. Turner, *GMAW*, 10-11; Cribiore, *Writing*, 83-84.

MSS and their content Groups, the tallies are as follows for MSS in which the *diaeresis* occurs (Figs 6.5a, 6.5b). Details of the occurrence of *diaereses* in MSS on my database are given in Table 17b in Vol. 2, App. 3.

Figure 6.5a **Numbers of MSS with *diaeresis* (by century start-dates)**

	II	*I BC*	*I AD*	*II*	*III*	*IV*	*Total*
No. of MSS with diaeresis	0	1	2	26	102	130	261
Total no. of MSS	3	9	4	41	184	275	516
No. of MSS with diaeresis / Total no. (as %)	0	11.1	50.0	63.4	55.4	47.3	50.6

These results show that, for the MSS used in this study, it was fairly common in I-IV AD for the *diaeresis* to be used, with around 47-63% of the MSS in II–IV AD having some instances. From Table 17a, which contains the details of MSS in periods, where there are clusters of ten or more MSS the proportions are 58.3-60.0% (II AD), 52.1-73.3% (III), and 42.3-52.1% (IV). So, it seems that the proportion of MSS containing *diaereses* actually declined from II to IV AD, but was still just below 50% on average in IV, which is quite high in comparison with other features. Thus, the *diaeresis* was a standard addition to many MSS, and was widely used. Of course, we need to take into account the fact that a MS is counted even if it contains only one instance of the *diaeresis*, so that occurrence could be eccentric. Further, its use might have merely been the result of copying what was on the exemplar. Therefore, with that proviso, we may conclude that ***the use of the diaeresis was relatively common in our MSS in comparison with some of the other features examined***, decreasing somewhat in III–IV AD.

Figure 6.5b **Numbers of MSS with *diaeresis* (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*Total*
No. of MSS with diaeresis	70	73	25	33	2	22	7	8	16	0	261
Total no. of MSS	171	116	39	54	4	58	14	11	47	2	516
No. of MSS with diaeresis / Total no. (as %)	40.9	62.9	64.1	61.1	50.0	37.9	50	72.7	34.8	0	50.6

The use of the *diaeresis* in Groups E-J is again significant, although only Group F and Group I have large enough numbers from which to draw a conclusion, where it is used in 37.9% and 34.8% of MSS respectively. In Groups A-D the *diaeresis* appears in 40.9-64.1% of MSS, a significant proportion in comparison with other features examined in this chapter. It is surprising that the percentage is less in Group A (OT

MSS), but perhaps the small proportion of Jewish MSS using it (**55-1**, **77-2**, **275-1**; 3 of 14, or c. 21.4%) partly accounts for this. In general, then, the *diaeresis* occurred in a little more than half the MSS. It was less common in Group F (amulets etc.), probably due to the occasional content of those texts, and in Group I (unidentified texts) perhaps because of the mixed nature of the texts in this Group.

To conclude this section, I list some unusual forms of the *diaeresis*. It occurs in the form of a single point (**32**, **293**, **331**, **359**?, **537**?, **914**, **921**, **1036-1**) or a short *makron* (**4**, **284**, **293**, **317-1**, **371**, **426**, **586**). A *diaeresis* occurs unexpectedly over certain vowels (A, H, O or ω) in some MSS (**482**, **548**, **569**, **611**, **1078**), or over I in unusual positions (**238**, **511**), and sometimes may have been used for a rough breathing (**30-2**, **118**, **371**, **426**, **442-1**, **451**?, **548**, **921**) or to indicate the beginning of direct speech (**426**). In a number of MSS YIOC was apparently seen as difficult, sometimes resulting in the *diaeresis* being used over both Y and I (**4**, **64-1**, **148-1**, **371**, **430-1**, **522**, **548**, **577**, **584-1**?, **660**, **694-1**, **710-1**, **1037-4**); in these instances it may also have indicated a rough breathing. An unusual use of the *diaeresis* over the first Y in AYTOY occurs in **473-1**, and not for a rough breathing; and it seems to have been placed over a vowel between two consonants in **864**. Such MSS will need to be kept in mind at the end of this chapter when we revisit (in §6.12) the gradually developing list of MSS copied by non-professional writers, since these unusual uses of the *diaeresis* may imply an uncertainty about its usage or a lack of rigour in its application to a single function, and hence a lack of professionalism.

6.6 **Apostrophe**

The apostrophe (or *sicilicus*) was used in a variety of ways. It was commonly employed to mark the end of an indeclinable proper noun (often a name in another language, such as Hebrew), to indicate elision and between double consonants or two gutturals.[19] It was never used uniformly and regularly, and is often found intermittently throughout a MS. The frequency of occurrence of MSS containing the apostrophe is given below in their century start-dates (Fig. 6.6a) and then in their content Groups (Fig. 6.6b). Details are presented in Table 18 in Vol. 2, App. 3, in

[19] Cf. Thompson, *Introduction*, 62-63; Devreese, *Introduction*, 26-28; Turner, *GMAW*, 8, 11; Cribiore, *Writing*, 84-85.

more detailed start-date periods in Table 18a, and then in content Groups in Table 18b.

Figure 6.6a **Numbers of MSS with apostrophe (by century start-dates)**

	II	*I BC*	*I AD*	*II*	*III*	*IV*	*Total*
No. of MSS with apostrophe	0	0	0	11	55	70	136
Total no. of MSS	3	9	4	41	184	275	516
No. of MSS with apostrophe / Total no. (as %)	0	0	0	26.8	29.9	25.5	26.4

So, use of the apostrophe was fairly common, in the range of 25.5-29.9% in the three centuries (II–IV AD), but not as common as punctuation or the *diaeresis*. Since it occurs only from II AD onwards, it does not appear to have been a feature of Jewish MSS in the early centuries. In the case of Hebrew names written in Greek, Jewish scribes who were familiar with them presumably did not feel the same need to help readers as did copyists for later Christian readers. However, the apostrophe was in common use in early Christian MSS in II–IV AD. From the detailed tallies in Table 18a in Vol. 2, App. 3, it appears that in time period clusters of ten or more MSS the apostrophe occurred in 10.0-33.3% of MSS in II AD, 29.3-33.3% in III, and 21.4-28.6% in IV. The apparent 'sudden' occurrence of the apostrophe in MSS after I AD probably suggests that non-Jewish texts in II BC – I AD employed it, but its use increased in II AD, and then flattened out. The fact that my database includes virtually all Christian texts from II to IV AD (the two exceptions being Jewish) means that a higher proportion than normal of non-Greek words and names occur. It is difficult to trace from these results any trend to increase or decrease use of this feature in the period under review, but ***the apostrophe occurs in a significant proportion of MSS***.

Figure 6.6b **Numbers of MSS with apostrophe (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*Total*
No. of MSS with apostrophe	39	40	15	21	2	4	2	4	9	0	143
Total no. of MSS	171	116	39	54	4	58	14	11	47	2	516
No. of MSS with apostrophe / Total no. (as %)	22.8	34.5	38.5	38.9	50.0	6.9	14.3	36.4	19.1	0	27.7

Fig. 6.6b shows that in content Groups with smaller numbers of MSS (Groups E, G, H and J), the apostrophe was used in a high proportion of those in Groups E and H, rarely in Group G, and not at all in Group J. In Groups with more significant numbers of MSS, it was quite rare in Group F (these being the less formal amulets and prayers)

and a little more common in Group I. In the remaining Groups A-D the considerable numbers enable us to conclude that ***the occurrence of the apostrophe was significant (22.8-38.9%), especially in Groups C and D***. It is surprising also that the apostrophe was used in proportionately fewer MSS in Group A (OT) than in Group B (NT), since one of its major uses was to mark non-Greek proper nouns, as Hebrew names often ended in a consonant (e.g. ΔΑΝΙΗΛ) and frequently did not decline when carried across into Greek. Hence, MSS in Group A might have been expected to be more likely to contain them. The fact that this is not so may well be the result of Jewish scribes being more familiar with Hebrew names, as suggested above, since not one Jewish MS (of 14 in Group A) contains an apostrophe. This in itself, and perhaps the influence of this on copies produced subsequently, would help to explain to some extent the lower percentage of MSS with the apostrophe in Group A. Thus, in general the apostrophe was used in MSS in Groups A-D in c. 23-39% of cases, with the proportions varying in the other Groups (with smaller numbers, except for Groups F and I). The high tally of MSS with this scribal feature in Group I again shows its random nature.

6.7 **Breathings**

Both smooth and rough breathing signs sometimes occur in our MSS at the beginning of words with vowels.[20] They mostly appear in angular shape (e.g. ⊦ or ⊥), although a small number of other forms occur as well. As with other features examined in this chapter, they do not appear with regularity in any one MS. The tallies for the number of MSS with breathings are given below in their start-date time periods (Fig. 6.7a) as well as in their content Groups (Fig. 6.7b). Details of their occurrence in MSS are available in Table 19b in Vol. 2, App. 3.

Figure 6.7a **Numbers of MSS with breathings (by century start-dates)**

	II	*I BC*	*I AD*	*II*	*III*	*IV*	*Total*
No. of MSS with breathings	0	0	0	15	41	54	110
Total no. of MSS	3	9	4	41	184	275	516
No. of MSS with breathings / Total. no. (as %)	0	0	0	36.6	22.3	19.6	21.3

These results show that breathings were applied in the MSS from II AD onwards, but they indicate a gradual decrease in their use over the period from 36.6% to 19.6%. A

[20] Cf. Thompson, *Introduction*, 61; Turner, *GMAW*, 11-12; Cribiore, *Writing*, 86.

more detailed analysis of groups of ten or more MSS in Table 19a shows an occurrence of 10.0-60.0% of MSS in II AD[21], 21.1-26.7% in III, and 14.3-23.1% in IV. If anything, usage of breathings seems to have declined in the period from the second to the fourth century.

Figure 6.7b **Numbers of MSS with breathings (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	Total
No. of MSS with breathings	35	33	6	21	0	3	2	1	9	0	110
Total no. of MSS	171	116	39	54	4	58	14	11	47	2	516
No. of MSS with breathings / Total no. (as %)	20.5	28.4	15.4	38.9	0	5.2	14.3	9.1	19.1	0	21.3

Fig. 6.7b shows that in Groups E-J, there is very little use of breathings, except for Group I, which would be consistent with the random nature of this Group. Breathings are used in MSS in Groups A-D in considerable proportions (15.4-38.9%) with samples of significant sizes, somewhat less in Group C (Apocryphal texts) and more in Group D (Patristic texts). Thus, in general ***the use of breathings was not very common*** – in clusters of ten or more MSS they occur in around 10-60% of MSS, but mostly 15-30%. If anything, ***usage seems to have declined over the period***, and even in the MSS that included some breathing marks, they are very rare indeed. There are no irregular features to note in this case, since the form of breathings was not fixed in this period, nor was their inclusion uniform.

However, we should ask why the use of breathing marks seems to have declined from II AD to IV AD. At first sight, this is surprising, since we might expect that such readers' aids would increase as a general trend. However, the decline in the use of breathing signs is exactly what should be expected linguistically. The reason for the decline is probably that it reflects the loss of aspiration in pronunciation. Thus, ἡμεῖς and ὑμεῖς were already for some time being pronounced the same – as *îmîs* not *hêmeis* and *hûmeis*. So, what is surprising is that the breathing is retained at all in MSS written in this period, which can be explained by the fact that a number of the MSS were copied by professional scribes who put them in randomly, as suggested about the apostrophe in the previous section (§6.6). These occurrences of breathings

[21] The large range here is the result of small groups of MSS. So, 10% represents 1 of 10 MSS and 60% represents 6 of 10. Another result (5 of 12 MSS) yields a proportion of 41.7%, but the number of MSS is still small.

were then carried on by the copyists who used those MSS as exemplars, especially those texts seen as 'sacred' in certain Christian circles, and hence not to be tampered with. Presumably, even though they were included, they did not reflect the realities of the contemporary spoken language, and presented something of a puzzle to subsequent generations of copyists, especially to any who were not professional scribes. In time, this would result in their gradual omission as MSS continued to be copied.

In contrast the patristic Greek texts continue to contain breathings, because their authors were Atticisers trying to write like Demosthenes and Plato. That is, those writers knew how to write 'correct' Greek, and even though later copyists would still find the breathings a fossilised puzzle, they would have been retained just as optatives were not changed wholesale into subjunctives, etc. The above reconstruction would seem to account for the data quite well, and puts the data available about the MSS in my database on the broader canvas of linguistic development in the centuries under review, until much later when breathings in Greek texts became quite standard.

6.8 **Accents**

Acute, grave or circumflex accents were placed over vowels in order to make the task of pronunciation easier, especially for speakers whose native language was not Greek.[22] The tallies for the occurrence of accents in our MSS in their century start-dates are given below in Fig. 6.8a, and then in content Groups in Fig. 6.8b. Details of their occurrence in MSS on my database can be found in Table 20 in Vol. 2, App. 3, in more detailed time periods in Table 20a and in content Groups in Table 20b.

Figure 6.8a **Numbers of MSS with accents (by century start-dates)**

	II	*I BC*	*I AD*	*II*	*III*	*IV*	*Total*
No. of MSS with ≥ 1 accent	0	0	0	2	9	18	29
Total no. of MSS	3	9	4	41	184	275	516
No. of MSS with ≥ 1 accent / Total no. (as %)	0	0	0	4.9	4.9	6.5	5.6

The evidence shows there was only ever a small but stable proportion of MSS (4.9-6.5%) which contained accents. The more detailed analysis of clusters of ten or more

[22] Cf. Thompson, *Introduction*, 61-62; A. Biondi *Gli accenti nei papiri greci biblici* (*Studia et textus* 9; Rome: Papyrologica Castroctaviana, 1983); Turner, *GMAW*, 11-12; Cribiore, *Writing*, 85; C. Haebler, 'Akzent,' *NP* 1 (1996) 423-25, *BNP* 1 (2002) 56-58.

MSS in Table 20a shows that the tallies are low (0-10.0% of MSS) for II AD, still very low (3.2-6.7%) in III, and quite low (0-8.5%) in IV. Since the percentages for II AD only derive from 0 of 10 and 1 of 10 MSS, it would be unwise to assert that accents were used in a higher proportion in MSS with start-dates in that century. Thus, ***accents were used quite uncommonly in the earlier period (II AD)***, the range being 0-10% in large groups of MSS. ***In III AD they were employed in less than 7% of MSS, but their use may have risen slightly in IV AD***. Even here, they were quite rare even in the MSS where one or more occur. I conclude that accents were not as frequently inserted in MSS as any of the other features examined so far.

Figure 6.8b **Numbers of MSS with accents (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*Total*
No. of MSS with accents	9	3	4	8	0	2	1	0	2	0	29
Total no. of MSS	171	116	39	54	4	58	14	11	47	2	516
No. of MSS with accent / Ttotal no. (as %)	5.3	2.6	10.3	14.8	0	3.4	7.1	0	4.3	0	5.6

From Fig. 6.8b we can see that in Groups E-J accents occur very rarely, with quite low proportions in Groups F and I where there are significant sample numbers. In Groups A-D, where there are also significant numbers in the sample, the proportion of MSS with accents ranges from 2.6% to 10.3%, except for Group D (Patristic texts) with 14.8%. The latter fact may be explained, as suggested above with respect to breathings (in §6.7), as originally being the result of an Atticising tendency on the part of patristic authors carried on by later copyists, and then being ossified in MSS as they continued to be copied. For the period being studied in this thesis, they were retained by scribes as a part of their convention of copying, and especially because these texts were seen as important and sacred by those who had them copied. So, these scribal 'additions' to the text were treated as special too by association, and so not to be wantonly removed, though their decline in occurrence may be attributed to a combination of oversight and puzzlement.

Therefore, the proportion of MSS with accents is quite low. ***Accents were among the least common additions to MSS in my database, without a clear trend to their being used more frequently***, although perhaps there was a slight rise in their use in the fourth century, the latter possibly due to the burgeoning number of Patristic (Atticising) texts.

6.9 **Letter height, interlinear space and leading**

Although letter height and interlinear space are not commonly treated in the study of 'aids for readers,' in view of Turner's claim that Christian MSS tended to have larger letters for the sake of public reading,[23] it is appropriate that these aspects of the MSS be studied here. Indeed, Comfort refers to Turner's suggestion, and asserts that it was usual for MSS which would be read out in church to be written in large print on large sheets and in good quality handwriting, and combines this with a note about 'lectoral markings' such as punctuation, paragraph/section markers and the slash mark.[24] However, while Comfort mentions a number of MSS which include both the readers' aids and large lettering, he does not attempt to trace if these were common features of NT MSS or if their usage changed over the centuries. It will be the purpose of this section to assess whether larger letter height (and related interlinear spacing) was in fact widespread, and perhaps increasingly so, in Christian MSS in II–IV AD.

For this aspect of my research the measurements of average letter height and interlinear space were made by observation and manual measurement of actual papyri or, if this was not possible, photographs, plates or images. The scale of the latter was not always 1:1, so adjustments were made for this in calculating these dimensions. However, since letter height and interlinear space mostly vary somewhat on any given page (and certainly throughout most MSS), this is not an exact measurement to cover entire MSS, but an average taken across several non-sequential pages where possible. Letter height and line spacing often become smaller toward the end of a MS, due to the need to fit all the text into the remaining space available on the roll or in the codex. However much planning was undertaken for a codex before the text began to be written, still there was often some deviation in the execution of producing the MS. The average letter height and line spacing recorded for any MS in Table 21b in Vol. 2, App. 3 should be used with these qualifications in mind.

Further, it is an obvious limitation of the data that many MSS are quite fragmentary, so that letter height and interlinear space have been assigned on the basis of what is sometimes a small amount of text. It could be objected that this assumption is not

[23] Cf. Turner, *Typology*, 84-87.
[24] P.J. Comfort, *Encountering the Manuscripts. An introduction to NT paleography and textual criticism* (Nashville: Broadman & Holman, 2005) 53-54.

warranted, as a writer's letters may well have varied significantly from the sample, and hence that this prejudices the results presented in this section. While it is true that letter height, etc., did fluctuate (as a number of longer MSS show), it is also true that writers did keep to roughly the same letter height for most of their MSS, and any divergence was neither gross nor deliberate, but simply part of the reality of copying a text by hand. It is notable that letter height in fragmentary MSS is as regular as it mostly is where this can be tested in more extensive MSS; and in a few cases, such as the 'Great Codices' (e.g. *Codex Sinaiticus* and *Codex Vaticanus*) there is remarkable regularity. Where there is a significant range of letter height and interlinear spacing, this is noted in Table 21b.

I also use another term, the 'leading' of a MS, which is a measurement of the space between the bottom of one line of writing and the bottom of the next.[25] For this thesis the average leading is calculated over as many lines as practicable. It is a more accurate measure of average letter height plus interlinear space, as gathered for this study. Although in theory it should be equivalent to the sum of the other two, in practice this is not so, partly because the other two measurements, while real, are based on a manual measurement of average size. Ideally, each page would need to be assigned its own average 'leading,' since this could vary over a number of pages, and then an average obtained for a whole MS; but the principle of 'diminishing returns' applies. Therefore, the same qualification applies to the 'leading' as to the other two measurements, although to a lesser degree. The results for the average leading of MSS in their century start-dates are given below (Fig. 6.9a), noting that not all MSS have data available for these calculations. Full details are given in Table 21b. Results are given in millimetres correct to one decimal place.

Figure 6.9a **Average letter height, interlinear space and leading (by century start-dates)**

	II	*I BC*	*I AD*	*II*	*III*	*IV*
Letter height (av.) (mm)	2.7	2.7	2.6	2.4	2.8	2.9
Interlinear spacing (av.) (mm)	4.3	4.1	5.9	3.1	3.4	3.3
Leading (av.) (mm)	6.8	7.1	8.7	5.7	6.3	6.4
Total no. of MSS	3	9	4	41	184	275

From II to IV AD the **average leading** rises considerably from 5.7mm to 6.4mm. When we examine the results for each MS, despite a few that are very small and some

[25] On 'leading' as a feature of Greek literary rolls see Johnson, *Bookrolls*, x (Fig. 1.b), xi, 56-58, 83-84 (Table 2.5).

larger ones, they mostly vary from 4.5mm to 7.0mm, with a majority more than 6.0mm, and a large proportion greater than 5.0mm, as the more detailed list of results in Table 21b testifies. In clusters of ten or more MSS, the average varies from 5.1mm to 5.6mm for II AD, 6.3-6.6mm for III, and 5.9-6.6mm for IV. This shows that the apparent increase observable in Fig. 6.9a is not as smooth a progression as it might seem, although there is still a real increment. Johnson notes that average leading may vary a little in an individual MS, but does not offer an analysis of any trends in this measurement with which we might compare these results.

The results for **average letter height** also show an increase in size over the period, and the more detailed data in Table 21a for clusters of ten or more MSS is 2.3mm for II AD, and ranges of 2.7-3.0mm for III, and 2.8-3.0mm for IV. Again, the trend is not uniform, but there is certainly a noticeable increase.[26]

In contrast, the results for **average interlinear space** do not seem to show an increase in size over the period, and the more detailed data in Table 21a for clusters of ten or more MSS show ranges of 2.6-3.3mm for II AD, 3.4-3.6mm for III, and 2.9-3.4mm for IV. Thus, for interlinear space there does not seem to be a clear trend to increase in size, and actually a slight decrease in size from III to IV AD. ***The increase in average leading is thus more the result of an increase in average letter height, rather than an increase in average interlinear space.***[27]

If we now consider the MSS in their content Groups, the following results appear (Fig. 6.9b). More detailed results for all MSS appear in Table 21b. A dash indicates that information for these MSS is not available.

Figure 6.9b **Average letter height, interlinear space and leading (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*
Letter height (av.) (mm)	2.8	2.7	2.5	2.7	3.8	3.3	2.6	2.7	2.9	-
Interlinear space (av.) (mm)	3.3	3.4	3.1	3.2	4.4	3.8	2.6	3.5	3.5	-
Leading (av.) (mm)	6.3	6.7	5.8	6.1	8.5	7.3	5.4	7.1	6.2	-
Total no. of MSS (516)	171	116	39	54	4	58	14	11	47	2

[26] On letter height see Johnson, *Bookrolls*, 155-56. Cf. Cribiore, *Writing*, 99-100 (esp. n. 18), 105-06.
[27] On interlinear space see Johnson, *Bookrolls*, 156.

The **average leading** seems to have been similar for Groups A and B, and only slightly smaller for Groups C and D. In Group I it is approximately the same as A and B, but this is a random collection of MSS and no conclusions should be based on it. In Group F the leading is significantly higher, perhaps due to the more informal nature of amulets and the like. Groups E and H are too small a sample from which to draw firm comparisons, although Group E has notably the largest average leading across all Groups. Group G has the smallest average leading.

How might we explain these disparities in average leading? If we take the Patristic texts in Group D, whose average leading (6.1mm) is less than the OT (Group A) and NT (Group B) MSS, it might be suggested that the patristic texts were considered 'orthodox,' that is, acceptable for the (educated) faithful to 'read.' In this regard, they would be like the texts in Groups A and B, but their smaller average leading would indicate that they were seen as having a lower level of importance and so could be written with similar but smaller letter height. However, this implies an approach to copying a group of MSS that is too formulaic and probably anachronistic, considering the realities of text reproduction by a variety of scribes and others in II–IV AD (see Ch. 3). Perhaps the smaller average leading in Group D shows less concern to make books suited for public reading (cf. §6.11 below), but even then the difference is probably too small to sustain this judgment.

The MSS in Group C (Apocryphal texts) stand out as having a lower average leading again (5.8mm) – and are distinct in other features as well, as we will see – which would be consistent with the view that they were perceived as having a different level of significance in comparison to the mainstream Christian texts. This would be in agreement with the view that the MSS in Groups C and G were produced largely for 'private' use and had nothing like the same circulation in 'public' contexts such as church meetings. We may be able to confirm whether there is any basis for this distinction when other features are examined in the ensuing material; but even at this point it should be observed that those who commissioned (or copied) these texts may not have seen them as being of less importance than other texts.

The **average letter height** is 2.7-2.8mm for Groups A and B, and Group D has the same average as Group B. It is not surprising that this fits the pattern for the average

leading size observed above, where averages for leading in patristic texts are a little smaller in size than those for Group A (OT) and Group B (NT), but Group C (2.5mm) again has a similar average to Group G (2.6mm). This is consistent with my suggestion above, that apocryphal texts, at least, were written more for private than for public reading and so tended to be written with smaller average letter height (and so also smaller leading). Perhaps the Gnostic and Manichaean MSS in Group G have a smaller average lettering height than others, because they were more 'private' in nature; but these groups, too, probably used their texts in communal gatherings.

Group F has MSS with a larger average letter height (3.3mm), as amulets etc. might be expected to exhibit less literary features due to their occasional nature. Group I has an average about the same as that of Groups A and B; and again the disparate, unidentified texts in Group I exhibit features that are sometimes like other Groups (as here), and at other times quite unusual due to the random nature of this collection. The average for MSS in Group E is larger (3.8mm), perhaps for a similar reason to that suggested above – they were probably produced more for private reading. The average letter height of Group H (magical texts) (2.7mm) is like Groups A, B and D, most likely because such texts were usually intended to be read out aloud. Again, Group E is too small to be statistically significant.

The **average interlinear space** seems to be quite low for Group G (2.6mm), which is closest to that for Group C (3.1mm), again consistent with the suggestion that MSS in these two Groups were produced more for private reading. Groups A (3.3mm), B (3.4mm) and D (3.2mm) continue to be close to one another, testimony to the consistent trend observed in the previous two sections (§§6.7, 6.8). There is no apparent reason why Group E (4.4mm) should be quite high, although again the number of MSS is really too small to draw any conclusions. The average interlinear space in Groups F (3.8mm) and I (3.5mm) is slightly higher than Groups A-D; but Group F is a Group of MSS likely to exhibit irregular features due to the mixed and informal nature of its MSS; and Group I may be put to one side as a very diverse Group. The magical texts (Group H) have a larger average interlinear space (3.5mm), again consistent with being written for recital, although hardly in a 'public' context.

In summary, ***the average leading size is the most accurate measurement to take into account, and this shows a general rise over the period in view***. This would be consistent with Turner's observation that Christian manuscripts intended for public reading exhibit a larger format (larger letter size, fewer letters per line and fewer lines per page on similar sized pages).[28] ***The reason that this was so is probably to be found in the kinds of texts in these Groups***, since Groups A (OT texts), B (NT texts) and D (Patristic texts) contain those texts viewed as being appropriate for the faithful to 'read;' so their public reading was a major factor in the larger size of their lettering and interlinear space. The letter height and interlinear space of MSS in Groups C (Apocryphal texts) and G (Gnostic and Manichaean texts) were consistently smaller, perhaps due to their being seen as of a different level of significance (in the case of Group C) and having a more private nature (for Groups C and G). Groups F and I are quite large in their averages, but since they consist of less formal texts (Group F) or a varied range of texts (Group I), the average results are not particularly informative. The MSS in Groups E and J are too few to treat for averages in these matters.

We are now in a position to list (Fig. 6.9c) those MSS that have unusually small or large letter height, or small interlinear space, since these may show a lack of professional copying. The Figure lists those MSS that exhibit unusually small (< 2mm) or large (> 4mm) letter heights, or small interlinear space (< 2mm), as well as those with a high degree of variation in letter height (> 1mm) or interlinear space (> 1mm) (cf. Ch. 2, §2.3f.i). These dimensions have been chosen on the basis that they exclude the majority of MSS, and include those at the fringes.

Figure 6.9c **MSS with unusual sizes in letter height or interlinear space, or with significant internal variation**

Letter height (small or large)	**43**, **84**, **87-2**, **92**, **132-1**, **205**, **247-2**, **275**, **441**, **448**, **501-1**, **539**, **585**, **598-1** (Pl. 9), **658-1 672**, **691**, **696**, **715-2**, **739**, **844**, **862**, **914**, **918-4**, **949-1**, **955**, **971**, **983**, **1034-1**, **1035**, **1037-5**, **1093**, **1127** (Total 33)
Letter height variation (large)	**87-2**, **380**, **473-1**, **648-1**, **672**, **715-2**, **733-2**, **862**, **967**, **983**, **996-1 J**, **1034-1**, **1067-1**, **1080-1**, **1126-3**, **1127**, **1148** (Total 17)
Interlinear space (small)	**21-2**, **41**, **170-1**, **585**, **631-2**, **949-2**, **953**, **1034-1**, **1037-5**, **1066-2**, **1066-3**, **1066-4**, **1066-6**, **1071**, **1137** (Total 15)
Interlinear space variation (large)	**88-1**, **220**, **276**, **285 J**, **359** (Pl. 36), **473-1**, **548**, **557**, **569**, **584-1** (Pl. 31), **611**, **611-1**, **659-1**, **662**, **664-1**, **672**, **681**, **693**, **694-1**, **728**, **892-2**, **902**, **918**, **949-1**, **951**, **955**, **971**, **983**, **1034-1**, **1037-5**, **1065-1** (Pl. 22), **1067-1**, **1080-1**, **1093**, **1094 J**, **1126-3**, **1150-4** (Total 37)

[28] Turner, *Typology*, 84-87.

As with other sections of the present chapter, the MSS noted as exhibiting irregular or other notable features will be compared at the end of this chapter (§6.12) with the developing list presented at the conclusion of Ch. 5 (Fig. 5.18), in order to see if the non-professional nature of the production of the MSS there is confirmed, or indeed if our estimate of any of them needs to be revisited.

6.10 **Letters per line**

The number of letters per line in a MS is also not normally examined as part of a study of 'aids for readers,' but for the same reasons as cited in the previous section (§6.9), it is appropriate to examine this feature of the MSS on my database here, especially in light of claims that there was a tendency for some Christian MSS to have fewer letters per line as part of an overall increase in size for the sake of public reading.[29] In my database the number of letters per line in a MS is an average which is calculated over as many lines as practicable. Of course, this may vary for each page of a MS, and for different hands in any one MS. For the summary results below (Figs 6.10a, 6.10b) and the detailed presentation in Table 22 in Vol. 2, App. 3, I have not taken into account those MSS where it is not possible to tally the number of lines per page even approximately. Further, quite a few of the results used are reconstructed, and for that reason are not exact, although often quite accurate within certain limits. As well, if a codex was written in two columns per page, at least for a part of the codex, then the number of letters per line might vary considerably. At this stage the codices with two columns have been noted, but the difference which this might make has not been taken into account. The number of codices with more than one column were presented earlier, in Ch. 5 (Figs 5.10, 5.11), which may be referred to here. It will be seen that they are only a small proportion of the MSS in their century start-date totals and also in their content Groups; and they can be allowed to stand as part of the data considered here, since they still present a number of letters per line, even though in two or more columns per page.

The average number of letters per line in the MSS is given below grouped by century start-dates (Fig. 6.10a) and then by content Groups (Fig. 6.10b). Results are given correct to the nearest whole number.

[29] Cf. Turner, *Typology*, 84-87.

Figure 6.10a **Average number of letters per line (by century start-dates)**

	II	*I BC*	*I AD*	*II*	*III*	*IV*
No. of letters per line (av.)	25	32	21	25	28	25
Total no. of MSS	3	9	4	41	184	275

There is no perceptible trend in these results; and even when the details in Table 22a are noted, the range in clusters of ten or more MSS is 22-27 for II AD, 26-34 for III, and 23-29 for IV. The average number of letters per line in III AD (28) seems to be somewhat higher than II (25) or IV (25). The really notable result is I BC, but this is probably idiosyncratic since these Jewish MSS are from only two local areas, three (**5-1**, **55-1**, **56**) making up *P.Fouad* 266 (a, b, c) and the other six (**46**, **49**, **51**, **285**, **312**, **1093-1**) from the region just west of the Dead Sea.

Figure 6.10b **Average number of letters per line (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*
No. of letters per line (av.)	26	24	27	28	31	27	23	29	25	18
Total No. of MSS	171	116	39	54	4	58	14	11	47	2

In the content Groups also, it is difficult to see much significance in these results, except that Group E has a rather high score and Group J a low one; but these Groups do not have enough MSS from which to draw conclusions. Group H also has a high score (29), which may show that magical texts tended to have longer lines of writing; but eleven MSS are probably too few on which to base such a conclusion, despite the fact that some (e.g. **1074**) are extensive, and this high score is only slightly above that for Group D (28). The averages for all the other Groups fall into the range 23-28, and there is little to comment on here.

In general, then, the average number of letters per line may have been slightly higher in III AD, but a number of other factors such as page size, number of columns per page in codices, would need to be taken into account for this to be stated with more certainty. Turner's suggestion about Christian MSS (noted just above) was based on comparing MSS of similar size; hence his observation, that Christian MSS tended to have fewer letters per line than other MSS, would need to be accepted *pro tem.* until further details are studied at some later stage.

Although every MS has a varying number of letters per line on every page, those which vary significantly (variation of >15; cf. Ch. 2, §2.3f.i), not counting poetic

texts, or have a very large number of letters per line (> 60) are noted below (Fig. 6.10c), with the details given in Table 22b.

Figure 6.10c **MSS with a very large number of letters per line, or with significant variation**

Very large number of letters per line	**117**, **844**, **895**, **962** (4)
Significant variation	**4**, **43**, **52**, **252**, **268**, **548**, **569**, **580**, **611**, **667**, **672**, **683-1**, **689**, **694**, **700**, **710-1**, **1074**, **1075**, **1081**, **1175** (20)

These MSS may thus show signs of having been produced by non-professional copyists, and will also be taken into account in the concluding section of this chapter (§6.12).

6.11 **Lines per column**

The average number of lines per column is derived by calculating the average of the number of lines per column in a whole MS, or calculating the average reconstructed number of lines in an incomplete MS.[30] If a MS has more than one page, it might be thought that the number of lines per column would vary on different pages; and extant MSS with more than one page show that this is indeed the case. For example, in **4** the only pages with the same number of lines per column are in the section with two columns per page (pp. 1-18); but the difference is never more than two lines.[31] The editors of this codex of Genesis note that from p. 19 the scribe changed to a single column with very long and crowded lines. So, on pp. 1-18 there are 17-35 letters per line (in each column), while on pp. 19-30 there are 42-67 (usually 50-60), the scribe tending to lengthen and crowd the lines as the work progressed.[32] The editors also show that in this MS twelve very long columns (33-37 lines) fall on six consecutive pages in the single-column section.

The results for the average number of lines per column of writing for the MSS in my database in their century start-dates are as follows (Fig. 6.11a), with the details presented in Table 22a in Vol. 2, App. 3. Averages are given to the nearest whole number.

[30] See Johnson, *Bookrolls*, 57, 83-84 (Table 2.5). Cf. Hurtado, *Earliest Christian Artifacts*, 171-77.
[31] H.A. Sanders and C. Schmidt, *The Minor Prophets in the Freer Collection and the Berlin Fragment of Genesis* (London: Macmillan, 1927) 237.
[32] It follows that the codex must have already been made up, and no extra quire could be added.

Figure 6.11a **Average number of lines per column (by century start-dates)**

	II	*I BC*	*I AD*	*II*	*III*	*IV*
Lines per column (av.)	30	26	23	30	30	25
Total no. of MSS	3	9	4	40	185	275

These results point to a decline in the number of lines per column from III to IV AD, allowing naturally for page size, size of writing, and the like. It might be suggested that there was a more marked decline in average letters per column from II BC to I BC and then I AD; but the MSS in this sample are too few to support such conclusions. The details given in Table 22a for clusters of ten or more MSS show a range of averages from 27 to 38 for II AD, 27 to 33 for III AD, and 24 to 29 for IV AD. Again, Turner's observation about fewer lines to the column for Christian MSS in this period – based on a comparison of other MSS of similar size – find some confirmation in the results represented in Fig. 6.11a.

We now analyse this data on a Group by Group basis below (Fig. 6.11b), with details given in Table 22b. Again, averages are given to the nearest whole number.

Figure 6.11b **Average number of lines per column (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*
Lines per column (av.)	27	28	29	33	18	23	25	29	31	-
Total no. of MSS	171	116	39	54	4	58	14	11	47	2

In Groups A-C the average number of lines per column seems to be fairly constant at 27-29, with those in Group D averaging higher at 33, Group I at 31, and Group H at 29. For Groups F and G the average is noticeably less (23, 25). The few MSS in Group E seem to have quite a small average (18), but the sample is too tiny to allow any conclusions. The main point to note is that there does seem to be a fairly constant average number of lines per page, with Group D (Patristic texts) and Group I (unidentified texts) notably high, once again the latter presumably the result of the random nature of this group of unidentified texts. The possibility was noted above (in §6.9) that the texts contained in the MSS in Group D may not have been perceived as having the same level of authority or importance as those in Groups A and B, but were written on a smaller scale with slightly lower leading. This suggestion was rejected, but the significantly higher average number of lines per page in these texts might support the suggestion that they were not as frequently copied for public reading.

However, there does not appear to have been the same trend for Group G here as was noted in §6.9 above, since its average number of lines per column is not larger, as would be consistent with the previous results. But this *is* true in the case of Group C (Apocryphal texts), although not significantly. Thus, it seems that ***there is no great difference in the average number of lines per column over this period, with the possible exception of Patristic texts***. Yet since this result depends on the size of the page and of the writing, further research would be needed to test these suggestions. Turner's observation that the number of lines per page drops over the period in Christian MSS receives confirmation in the above data for period clusters.

From Table 22b, the MSS that show a significant variation (> 5) in the number of lines per column are noted below, since that degree of variation may be an indicator that a non-professional copyist was at work. They are **4**, **8**, **285 J**, **315**, **406**, **426**, **486**, **497**, **557**, **565**, **569**, **578**, **579**, **584-3**, **605**, **660**, **672**, **677**, **683-1**, **695**, **1066-6**, **1071**, **1079** and **1126-3**. The Christian MSS among them will also be compared in the following section (§6.12) to the list of MSS already given in Ch. 5 (Fig. 5.18).

6.12 **Conclusion**

From a survey of the 'aids to readers' in the MSS in this chapter the ensuing conclusions follow, and some issues arise.

a. *Frequency in general, and in content Groups*

Using those periods with clusters of ten or more MSS noted above (and reported in Vol. 2, App. 3, Tables 13a-22a), the range of frequencies with which these 'aids to readers' occur in Christian MSS of II–IV AD is as follows (not in time sequence, but in decreasing order of occurrence and using whole percentages):

Titles and headings (§6.1)	91-89%
Diaeresis (§6.5)	73-42%
Breathings (§6.7)	60-10%
Punctuation (§6.4)	57-34%
Section dividers (§6.2)	40-7%
Apostrophe (§6.6)	33-10%
Accents (§6.8)	10-0%

Breathings are placed higher because of two high results in small samples in II AD, but in general they occur less frequently than the others, except for accents. Sense lines and stichometric layout (§6.3) are quite infrequent (30-0%), except in OT poetic texts. The more 'passive' elements analysed in §§6.9-6.11 (letter height, interlinear space and leading; letters per line; lines per column) are not noted here, since they are features of all MSS rather than occurring in only a proportion of them.

With respect to content Groups, Group J has little information available and Group E is a very small sample; so they may be left to one side. Group I may also be left out of consideration here, since it contains a variety of texts of unidentified genres, and so its results must be considered random. Group F bears the marks of less professional production on the whole, but also should be seen as a collection of disparate texts, such as amulets of various kinds, even though they are grouped together as 'liturgical and private prayers.' The results for Groups I and F confirm the mixed nature of their contents. Groups A and B show larger letter size and interlinear space, with consequently fewer lines per column, which sets them apart as more generally written for public reading. A number of features suggest that Group D may have been copied with less of an eye to public reading, and so slightly smaller letter size and interlinear space, and more lines to the column. The same trend is often present, but to a greater extent in Groups C and G. Group H (magical texts) also shows less than professional production, but not as consistently. Even recognising the limitations of the data for reasons given already, there are observable patterns here which should not be discounted.

b. *Trends*

On the basis of my tallies, calculations and analysis, there is ***no evidence for the increasing use over the period studied of titles and headings, section markers such as paragraphoi, sense lines and stichometric layout, punctuation marks, diaeresis, apostrophe, breathings, or accents***. Indeed, some features seem to have become slightly less commonly used, either from II to IV AD (titles and headings, punctuation, *diaeresis*, breathings), or from III to IV AD (section markers, apostrophe, accents).

Further, my investigation shows that ***the average size of the 'leading' of MSS increased over the period, principally in conjunction with an increase in average letter height***. This appears to have been a distinctive feature of early Christian MSS, and affords pleasing, detailed confirmation of Turner's impression stated over a generation ago. The Jewish MSS from II BC to I AD show a similar trend, but in their case based on an increase in average interlinear space.

c. *Significance*

With the possible exception of the average 'leading' of MSS, ***the use of readers' helps did not increase markedly in MSS of Christian Greek texts during the period covered by this thesis***. Apart from titles and headings, most of the features examined remain at a fairly low level of usage: around or below 50% of MSS possessing these characteristics, and some much lower. Further, even when MSS have been cited as containing one of the features in this chapter, its occurrence is often rare, and probably never consistently applied everywhere, in any one MS. There appears to have been no consistent increase in the use of readers' helps in texts which were almost entirely written in *scriptio continua*. This raises the question, why they were so uncommon and why there was no increase. I suggest that there are three reasons why MSS in *scriptio continua* may not have presented such a great difficulty for the reader of Greek texts in antiquity (cf. Ch. 3, §3.3h.iii above), and hence why the insertion of readers' helps was so infrequent and did not rise significantly over the period.

First, in Greek, as in other languages, there are other cues in the text, such as the use of conjunctions, which signal a new syntactic division of some sort. Readers were thus not left entirely without clues as to the meaning of a text. *Second*, a reader in the Graeco-Roman world did not expect anything other than a text in *scriptio continua*, and hence was not disturbed when faced with a text written wholly in that manner. *Scriptio continua* was the norm. *Third*, MSS were typically produced with a selection of 'aids to the reader' as a part of the tradition of how they were written, and hence read. The people who actually read texts (especially in public) were generally those who had been trained to write and read, slaves or literate free people, professional writers – 'scribes' in that sense. Reading and writing usually went together; and, if reading was taught in conjunction with writing as Cribiore maintains (see Ch. 3, §3.3h.i above), then readers were already writers, and so less in need of readers' aids,

for they brought to the task of reading an experience of writing,[33] which involved a degree of training and practice, and therefore professionalism. Certainly, reading and writing were closely-interrelated, even if not identical, skills.

It is no surprise, then, that the insertion of readers' aids did not become much more common from the second to the fourth centuries AD in the Christian MSS which we have reviewed. Such aids were used to a limited extent by writers (mostly professional scribes), and were only thought to be necessary some of the time, most likely just as much as in other MSS of classical texts in Greek, and probably because on the whole both writers and readers were 'professionals.'

In relation to this, one further matter merits comment. Why would the *diaeresis*, one of the most commonly employed readers' aids, have been felt to be a useful aid in Christian MSS in comparison with other features? It might be suggested that a scribe accustomed to employing the *diaeresis* in other copying tasks applied it as normal when he was copying Christian MSS, although somewhat randomly when it occurred to him, not always because he was trying to be especially helpful to the reader, but sometimes simply because that was what professional copyists did. It may follow as a broad conclusion that this and other readers' aids are probably about as random in their occurrence as they were in Classical (literary) texts being copied in the same centuries – and hence in about the same proportions as in these latter texts. This suggestion must remain speculative, since its confirmation is outside the scope of this thesis; but it may help to explain the very varied frequency and apparently random application of these features in the Christian MSS on my database. If so, it might be hypothesised further that these features are due not to the Christians who commissioned copies from professional scribes, but to the scribes themselves on whom Christians often relied to produce their MSS. Later on, when the copying of Christian texts was done by a range of people, whether professional scribes or not, these features were carried forward as a part of the tradition in which the texts were copied. That is, these scribal additions 'became' part of the text which was regarded as special by Christians, even though they were actually extraneous to the contents

[33] P. Comfort, 'Scribes as readers. Looking at NT textual variants according to reader reception analysis,' *Neotestamentica* 38 (2004) 28-53, discusses how scribes interacted with the text as readers while they copied a MS.

conveyed by the text. Since the contents were felt to be special, the text as the transmitter of the content had special authority subliminally conferred on it, too. Even if there are no observable trends in the use of paid scribes by Christians, and even if there was not a sequential process in the utilisation of readers' aids, the same influence from professional scribes may well have been an ongoing factor as MSS continued to be copied.

Finally, a number of MSS investigated exhibit irregularities in various features – seen especially in §§6.5, 6.9, 6.10 and 6.11 – which appear to point to a non-professional copyist in the case of some MSS. If these MSS are compared with the provisional list of those not written by professional scribes (see Fig. 4.18, refined in Fig. 5.18), this judgment is now confirmed in a number of cases by their occurrence in those lists of MSS showing irregularities in the insertion of aids for readers. These MSS are listed in §§6.5, 6.9, 6.10 and 6.11 (including Figs 6.9c, 6.10c) and emerge especially in Vol. 2, App. 3, Tables 17, 21 and 22. However, again, such features can only confirm that some MSS were not written by professional scribes, since these readers' aids were never consistently applied and a few mistakes are only to be expected in signs and marks employed only infrequently.

Fig. 6.12 (below) now carries this 'cumulative tabulation' another step forward from the findings in Ch. 4 and then Ch. 5. Those MSS in red type have been demonstrated to exhibit features consistent with being produced by a non-professional copyist. Those MSS shown in blue in Fig. 5.18 at the end of Ch. 5 – viz. **132-1**, **347**, **548**, **557**, **559**, **569**, **667**, **672**, **677**, **715-2**, **728**, **1035**, **1073**, **1080**, **1091**, **1126-6**, **1148** – are now shown in red in Fig. 6.12. MSS that are newly confirmed by the examination of features in the present chapter as belonging to Categories 3 / 3^{+} (**359** Pl. 36, **539**, **658-1**, **739**, **862**, **864**) are now in blue type. MSS in the 'borderline' Category 2^{-} are again retained (in black type), and their significance will be discussed in the Summation of Part B. The non-professional character of the MSS in Categories 3 / 3^{+} which are still in black type await further testing in Ch. 7, the final substantial chapter, where the focus is on the writing of the texts contained in the MSS on my database. In that chapter we will also ask if some of the features examined indicate whether the copyists were Christian by conviction.

Figure 6.12 **MSS in Categories 3 / 3^+ and Category 2^- of handwriting quality (confirmed by features examined in Ch. 6)**

	3	*3^+*	*2^-*
		Group A	
II AD			**118**
III			**4**, **7**, **30**, **44** (Pl. 20), **62**, **77-1**, **81-1**, **263**, **269**, **273-2**, **286**
IV	**87-2**, **136**, **205**, **220**, **239**, **255**	**132-1**, **134-1** (Pl. 33), **246-1**, **308** (Pl. 34)	**3**, **90**, **133**, **138**, **143**, **170-1**, **195**, **239-2**, **263-1**
		Group B	
II AD			**559-1** (Pl. 8)
III	**347** (Pl. 24), **548**, **557**, **559**	**441**, **522**, **537**, **558**	**380**, **430-1**, **444**, **459**, **461-1**, **467-1**, **488**, **521-1**, **536**, **547**
IV	**345**, **359** (Pl. 36), **482**, **490**, **539**, **554**	**378**, **511**, **562**	**342-1**, **451**, **538-1**
		Group C	
II AD			**581**, **592**, **594**, **598-1** (Pl. 9)
III	**569**		**587-1**, **589**, **593**, **611**
IV			**578**, **579**, **580**, **584-1** (Pl. 31), **584-2** (Pl. 32), **584-3**, **585**, **604**
		Group D	
II AD		**657**	
III		**672**, **682**	**624**, **695**, **700**
IV	**667**	**658-1**, **677**, **693**	**626**, **648**, **648-1**, **654-1**, **661**, **698-2**
		Group E	
IV	**715-2**	**704-1**, **710-1**	
		Group F	
III	**733-2**, **968**, **1035**	**847**	**722** (Pl. 19), **1036**, **1037-5**
IV	**728**, **739**, **849**, **892-7**, **892-8**, **893**, **902**, **914**, **918**, **918-3**, **948**, **949-1**, **953**, **967**, **971**, **996-1 J**, **1050**	**844**, **862**, **863**, **864**, **918-1**, **918-4**, **949-2**, **955**	**895**, **921**, **948-3**, **951**, **1034-1**
		Group G	
III	**1065-1** (Pl. 22)		**1066-6**
IV		**1067**	
		Group H	
II AD	**1079-2** (Pl. 11)		
III			**1077**, **1081**
IV	**1073**, **1078**, **1080**		**1080-1**
		Group I	
III		**1154** (Pl. 21), **1178**	**1141-1**, **1146-3**
IV	**1091**	**1093**, **1126-6**, **1148**, **1150-4**	**1131**, **1147**, **1188-1**

Chapter 7
WRITING THE TEXT

At the end of Ch. 6, Fig. 6.12 provided a list of MSS in the non-professional Categories 3 / 3^{+}, as well as the less skilled professional Category 2^{-}. With a few exceptions, most of the MSS in Categories 3 / 3^{+} have been confirmed as belonging to those Categories, and hence appear in red or blue type in that Figure. Since many of the features examined in this chapter only occur to a limited extent in the MSS on my database, it is not easy to compare them and draw a confirmation of the level of professionalism of the copyist. Further, as with some earlier features examined, many of them are almost never used consistently in any one MS, which impedes a comparison. Therefore, for the purposes of this chapter, we will take as confirmed the non-professional status of those MSS presented in Fig. 6.12 in Categories 3 / 3^{+}, and trace the degree of consistency between that listing and the occurrence of the features of the MSS examined in this chapter. We will find that their assignment to Categories 3 / 3^{+} is generally reaffirmed and that the status of a small number of MSS, as yet unconfirmed, will be established as non-professionally written.

Thus, in this chapter, using Fig. 6.12 as a guide, we will examine the features of the MSS that relate to the writing of the text – the actual letters, words and other elements written. This will include some discussion of correction of the text as first written (see §7.2), but does not include a full-scale discussion of intervention to consciously change it so as to improve the grammar, harmonise it with parallel texts, or smooth out stylistically awkward aspects in the text. Some of the features that are treated do not require detailed analysis, but others deserve extensive discussion in relation to the professionalism with which the MSS were produced. The analysis of *nomina sacra* in §7.10 will also have special relevance to the question whether it is possible to attain any certainty about the Christian conviction of the copyists.

7.1 **Line-fillers**

The *diplê* (>) was used for a number of purposes, sometimes as a critical sign (see §7.2),[1] but often as a line-filler at the extreme right hand edge of a line of writing, in order to fill in the space that would remain unless another word were begun, so that the right hand writing edge appeared more even.[2] Other forms of line-fillers were the horizontal *makron* (—, sometimes with a superior point) or the *dicolon* (:). The *diplê* occurs in *P.Oxy.* 10.1235 (Hypothesis to Menander; II AD), and the horizontal *makron* in *P.Oxy.* 3.454 (Plato, *Gorgias* 507-8; late II AD).[3] At times the final letter in a line was extended to the right with the same purpose, or made smaller so as to finish the word at line end. As with many other features in Greek MSS in antiquity, the use of these devices was by no means universal. Nor was their insertion uniform in the MSS in which they do appear.[4] For a study of the *diplê* used at the end of a section see Ch. 6 (§6.2) above, and for an analysis of its use as a critical sign see §7.2 below. It was also used infrequently as a decoration, for which see §7.4 below. Table 23 in Vol. 2, App. 3 presents a detailed listing of line-fillers of various kinds in our MSS.

We now examine MSS in my database in which the *diplê* and other devices were used as line-fillers at the right hand line end, in order to see if there are any patterns which touch on the issue of the professionalism of the writer.

In Group A the *diplê* occurs in **4**, **15-1** (*m*.2, *m*.3), **30-1** (*m*.1, *m*.2), **33**, **52**, **61-1**, **67**, **77-2 J**, **180**, **284**, **316**, and **323**. Letters such as E are extended to fill a line end in **77-2 J**; and in **32** a *dicolon* (:) might be a line-filler, but more likely serves to show the end of an introductory phrase heading.

In Group B the *diplê* is used as a line-filler in **331**, **359**, **366**, **371**, **426**, **493**, **505**, **528** and **551**; and the central hasta of E is extended in **497** and **565-1**. In **451** the *diplê* occurs after a *dicolon*, and so is probably not a line-filler; more likely it is a section marker. In **462-1** the papyrus is quite damaged and the *diplê* is only 'possible.'[5]

[1] Cf. Turner, *GMAW*, 14; id., *Greek Papyri*, 117-18. McNamee, *Sigla and Select Marginalia*, 8-11 confines her study of the *diplê* to its use as a critical sign, omitting any of its uses as a sign of a new section or as a decorative space filler.
[2] Turner, *GMAW*, 5, esp. n. 12.
[3] Turner, *GMAW*, Nos 44 and 62 respectively.
[4] McNamee, *Sigla and Select Marginalia*, 25.
[5] *P.Oxy.* 50.3523, p. 4.

In Group C the *diplê* occurs as a line-filler in **585**, **587**, **594**, **595**, **603** (more elaborately) and **611**.

In Group D the *diplê* is used as a line-filler in **686-1**; but a short horizontal *makron* is employed for this purpose in **657**. In **627** there is a *dicolon* with a long *makron* and *antisigma* (ↄ) to the right, but it is not certain that this is a line-filler.

In Group E the top of the right *hasta* of N is extended in **710-1**, apparently as a line-filler.

In Group F the *diplê* is used in **774-5** (perhaps as a line-filler) and **892-7**, and the horizontal *makron* in **772** is also likely to be a line-filler.

In Group H a long horizontal line with a cross (*chi*?) in the middle seems to serve this function in **1076**.

No instances occur in Groups G, I or J.

There seem to be no discernible trends in the usage of these various devices as line-fillers, as Fig. 7.1 below shows. Since line-fillers were not applied consistently, and since the evidence is quite fragmentary in many cases, these tallies can only give a general idea of the numbers of MSS in the sample, and hence of the approximate proportions involved. The few cases that are unlikely have not been included in the count, and in addition totals have been given for comparison. The sole Jewish MS with line-fillers is **77-2** (I/II AD); but this is not included in the total as it allows the Figure to be presented more compactly. Fig. 7.1 gives the actual number of MSS with line-fillers, followed (in brackets) by the number of MSS with those century start-dates and in those Groups. A dash indicates that there are no MSS for that start-date period, as in all the Figures in this chapter.

Figure 7.1 **Numbers of MSS containing line-fillers (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*
II AD	3 (16)	1 (10)	1 (5)	1 (4)	-	-	-	1 (2)	-	-
III AD	2 (51)	4 (53)	4 (12)	-	-	-	-	-	-	-
IV AD	6 (91)	7 (53)	1 (22)	1 (26)	1 (4)	3 (42)	-	-	-	-
Total	11 (171)	12 (116)	6 (39)	2 (54)	1 (4)	3 (58)	0 (14)	1 (11)	0 (47)	0 (2)

What stands out from this is not the haphazard and inconsistent use of the various devices as line-fillers. That was common practice. What is significant is that they occur at all, since this shows an awareness on the part of the copyists of these MSS that such signs could be used for this purpose, and also indicates that they were

willing (from time to time) to use them. They knew the scribal 'tradition' and (as was usual) applied it occasionally. The word 'tradition' here is being used as a shorthand to refer to the conventions employed for some centuries in scribal work to copy Greek texts, and generally maintained conservatively, if also idiosyncratically and randomly. The appearance of such 'traditional' forms of line-fillers implies a degree of professional training on the part of the copyists of these MSS, which is what we might have expected. If the MSS mentioned above are compared with those mentioned in Ch. 4 (§4.4) from Fig.4.3 to Fig 4.8, it is apparent that there is a high degree of consistency between the two, since thirty-one of the thirty-six MSS represented in Fig. 7.1 (and Vol. 2, App. 3, Table 23) are listed in the professional handwriting Categories 2^{-} – 1. Further, of the five exceptions (**359**, **511**?, **657**, **710-1**, **892-7**) which were assigned to Categories 3 / 3^{+}, one is only a possible use and the other four contain a variety of line-fillers, only two of which (**359**, **892-7**) use the *diplê*. These results are consistent with the claim that ***the use of various line-fillers, especially the diplê, was largely the preserve of professional scribes***, although a few non-professional writers knew of them and used them. The results also serve to confirm to a high degree the Categories of handwriting assigned to those MSS from Fig. 4.3 to Fig. 4.8. The fact that there are so few from Categories 3 / 3^{+} on the accumulated list of MSS not copied by professional scribes (see Fig. 6.12) confirms the general reliability of that list, too.

7.2 **Critical signs and corrections**

In Ch. 3 (§3.2b) corrections in MSS was discussed. In this section I examine the critical signs and corrections that occur in the MSS on my database. It should be obvious that there will be an inevitable overlap between the following two subsections dealing with these two features, since many of the critical signs were used to indicate a deficiency in the text as first written, that is, a fault in need of correction, whether by addition to or deletion from the initial letter, word, phrase or longer section. Critical signs are reviewed first, before the more general matter of corrections is dealt with. Naturally, the more extensive MSS, sometimes whole codices, offer the best opportunity to study these aspects in detail, so these appear with some prominence. As with the previous section, we will be examining whether there are patterns of usage in these signs and corrections that might indicate the level of professionalism of the

writer. For details of the MSS containing these critical signs and corrections see Table 24 in Vol. 2, App. 3.

a. *Critical signs*

Some MSS contain critical signs that were part of the Aristarchan system (or at least were adapted from that), as well as others not derived from that system. While the use of some of these signs was fairly stable, there was often a lack of consistency in their actual form, and sometimes even in the significance accorded to them.[6]

i. Anchor

The anchor sign, employed to signal a correction, may be written in the margin, pointing up (↙) or down (↗), according to whether the correction is in the upper or lower margin. There is often a corresponding anchor pointing toward the other one placed in the upper or lower margin along with the text to be inserted, although the second anchor is not always present.[7] The anchor occurs with this function in **15-1**, **52**, **55**, **67**, **426**, **557**, **561** and **648-1**. **892-8** has a variant form of the anchor (like ↙/).[8] In **65** and **428** there may have been an anchor or similar mark, but their margins are damaged, so it is difficult to be certain.

ii. Asterisk

The asterisk occurs in various forms, mostly something like ※ and often with the corresponding use of an *obelus* (see below). It usually functions to indicate that a part of an OT Greek text did not occur in the Hebrew text.[9] It occurs in **19-1**, **30-1** and **314**. In **263+605** it introduces direct speech, rather than being a critical sign.

iii. *Diplê*

The *diplê* was one of the most common, general purpose critical signs used in Greek texts.[10] In **30-1** it occurs in the left margin of NT passages to indicate an OT

[6] McNamee, *Sigla and Select Marginalia*, 7-25 demonstrates this lack of consistency in both form and meaning.
[7] Cf. McNamee, *Sigla and Select Marginalia*, 11-13, esp. n. 24.
[8] *P.Berl.Sarisch* No. 2, pp. 19-20. Cf. McNamee, *Sigla and Select Marginalia*, 13, n. 21.
[9] Metzger, *Manuscripts*, 38. Cf. McNamee, *Sigla and Select Marginalia*, 11-12, esp. n. 15.
[10] McNamee, *Sigla and Select Marginalia*, 8-11, 16-17. The *dotted diplê* (⤚) occurs in some Greek MSS, but to my knowledge not in the MSS on my database. Likewise, I have not noticed any instance of the *antisigma* (Ↄ) occurring on its own in any of them; but see **627** referred to in §7.1 above.

quotation, and also serves to indicate quotations in **331+597**, **671**, **689[+690]**, **1150-3**, and **1224**. It is used in the left margin to indicate a correction in **138**, **284[+636]**, **331[+597]** (*m*.2; with the addition in the margin) and **1071**. A marginal *diplê* whose function is uncertain appears in **695**.

iv. *Obelus*

The *obelus* was a short stroke that occurred in various forms (e.g. —, ⸗, ÷). It could also occur as the oblique *metobelus* (e.g. ⁄, ⸓, /.). It had been used previously to indicate spurious passages, sometimes with an asterisk,[11] and functions in this way in some of our MSS: **15-1**, **19-1**, **30-1**, **133**, **314**, **426**, **694-1**, **1037-4** and **1071**. In **263+605** *obeli* are used for text division, rather than as critical signs. The *dotted obelus* in **1150-3** indicates a citation.

v. Signs with uncertain meaning

The significance of critical signs in many papyri is uncertain, and the MSS on my database contain some examples of this. Thus, there are critical signs of uncertain meaning (perhaps indicating a correction) in the left margin of **34-1**, as well as in **67** (sign like a Z with a slash above it) and **492**. Two small crosses (x) appear in the margin of **55** and a *diplê* in the margin of **695**; in both cases their function is unclear.

The frequency of the occurrence of these critical signs is shown in Fig. 7.2, grouped by century start-dates and content Groups, which shows a consistency with a growing but still sparse use of such signs in Christian papyri in the period under review. No Jewish MSS contain any of these critical signs.

Figure 7.2 **Numbers of MSS containing critical signs (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*
II AD	1	1	-	1	-	-	-	-	2	-
III AD	3	1	-	1	-	-	1	-	-	-
IV AD	8	2	-	3	-	2	-	-	-	1
Total	12	4	0	5	0	2	1	0	2	1

The small number of these MSS precludes investigation of their provenance to determine whether there was a distinctive local origin for this practice in early Christian copying. Most of them were written at least from the fourth century

[11] McNamee, *Sigla and Select Marginalia*, 12, nn. 15, 18.

onwards, but a few of them are earlier: **263+605** (III/IV), **284+636** (III), **314** (III–IV), **315** (II–III), **426** (II/III), **428** (III), **492** (III), **557** (III–IV), **671** (II/III), **695** (III–IV), **1071** (III/IV) and **1150-3** (II–III). Even the mere seven MSS in this list which are definitely pre-IV AD are sufficient to demonstrate, by the application of these critical signs to texts in several of the Groups (Groups A, B, D and I), that from an early date many of those who copied these MSS were professionally trained.

If we compare these results with the list of MSS in Fig. 6.12 in Ch. 6, the only MSS which were assigned to the unprofessional Categories 3 / 3^{+} and made use of critical signs are **557** and **892-8**, both of which include the anchor sign. That is, twenty-seven of the twenty-nine MSS that made use of such signs have been placed in the professional handwriting Categories 2^{-} – 1; and only two from the non-professional Categories 3 / 3^{+} made any use of such critical signs. This is consistent with my view that ***the presence of critical signs in a MS is in most cases a clue that a professional scribe has copied it***, and serves to reinforce the status assigned to the MSS in §4.4 (and later Figures listing MSS copied non-professionally).

b. *Corrections*

We have noted the general significance of corrections made to MSS in antiquity, as writers of all kinds noticed that they had made a mistake as they were copying, and attempted to correct it (cf. Ch. 3, §3.2). However, while it is not always possible to detect with certainty if a correction is made by the first hand, another contemporary hand, or a later hand, an opinion is often offered by an editor with varying degrees of certainty in the case of the first hand or a contemporary one. In the discussion below, we will take note of corrections by the first hand and any contemporary or near-contemporary hands. Thus, in the case of the later and larger codices, such as **30-1** (*Codex Vaticanus*), we will ignore corrections that clearly derive from a time much later than when the MS was originally copied.

Some copyists show a variety of methods for indicating corrections, whether those corrections are changing a letter or a phrase, or inserting a passage deemed to have been wrongly omitted. This is so in the larger codices (e.g. **15-1** Pl. 25, **19-1**, **30-1**), but also in others such as **118**. The kinds of corrections made are now detailed with comments on them; and then a number of points are raised with respect to the subject

of this thesis at the end of this section, and the implications for my thesis are then considered.

i. Omission or correction indicated by a sign

The *diplê* is placed in the left margin of **138** to show that some text (placed above the line of writing) should be inserted where there was no space in the line. In **284** the *diplê* also occurs in the side margin to show words to be inserted, which are then provided in the lower margin. Under this heading we could also include those MSS that use an anchor in the margin and place the correct words in the upper or lower margin (**15-1**, **52**, **55**, **65**?, **67**, **426**, **428**?, **557**, **561**, **648-1** and **892-8**), as given in §7.2a.i above. **67** is the only MS of which I am aware that has marks placed within the line showing where the omission is to be inserted. In **331** *m*.2 inserted a *diplê* along with a word to be substituted for a word already written.

ii. Deletion of text

Letters or words that were initially written are sometimes marked as being incorrect by various means. This is achieved by the use of superior points in **8**, **13**, **52**, **61-1**, **118** (points or *trêmata*), **331**, **406**, **426** (points or hooks), **428**, **486**, **497**, **548**, **550**, **557**, **599**, **606**, **611**, **654-1**, **660**, **666-1**, **678** and **694-1**. The same function was performed by inferior points in **654-1**, **696** and **918**. Letters were erased, sometimes by washing, in **331**, **406**, **426**, **537**, **611**, **648-1**, **694-1** and **918**. However, in **4**, **8**, **118**, **516**, **537**, **543**, **559-2**, **584-3**, **598-1**, **694-1**, **700**, **918**, **1066-2**, **1066-3**, **1079**, **1079-2**, **1081**, **1126-3**, **1149-1** and **1154** the copyists simply wrote over the current letters. While we might expect that this was a more crude method of deleting and substituting text, if we compare the levels of professionalism suggested by the Categories of handwriting, in fact only four (**537**, **918**, **1079-2** Pl. 11, **1154** Pl. 21) of these twenty MSS belong to the non-professional Categories 3 / 3^{+}, and six (**4**, **118**, **584-3**, **598-1** Pl. 9, **700**, **1081**) are from Category 2^{-}. The other ten MSS were assigned to the professional Categories 2 – 1.

Letters were also cancelled by means of a single (/) or double (//) oblique stroke, as in **8**, **109**, **303**, **331**, **406**, **428**, **482**, **543**, **548,** **557**, **559**, **584-3**, **611**, **648-1**, **654-2**, **655-1**, **660**, **672** (both / and // occur), **678**, **686-1**, **694-1**, **902**, **914**, **1036-1**, **1081** and **1154**. A horizontal stroke could perform the same function, as in **145** and **1093-1 J**. In **303**

there are lines drawn right around a word, in order to cancel it. In **406** the incorrect words are boxed around with hook-like symbols, while in **648-1** a hatched border is used; in **654-1** a ring of S-shaped symbols serves the same purpose. Another device was a superior and/or inferior *makron* placed above and/or below the letter(s) to be omitted, as appears in **61-1**, **109**, **426**, **559-2** and **678**.

iii. Insertion of text

Sometimes a copyist needed to insert quite large sections of the text that had been omitted, as in **315**. The discussion above about the anchor and the *diplê* indicated the most common strategy; but sometimes the correction occurs in the lower margin apparently without any sign to alert the reader (in **65**, **700** *m*.2?). On the other hand, the corrected text is often simply placed above the line of writing, perhaps in smaller script, especially if it is only a few letters, as in **4**, **8**, **13**, **15-1**, **19-1**, **32**, **52**, **61-1**, **67**, **85-1**, **109**, **118**, **143**, **145**, **170-1**, **223-1**, **293**, **303**, **317-1**, **355-1**, **356**, **360**, **372**, **397**, **406**, **426**, **428**, **451**, **482**, **492**, **501-1**, **509-1**, **516**, **537**, **539**?, **543**, **548**, **550**, **557**, **559**, **559-2**, **584-3**, **595**, **598-1**, **604-1**, **606**, **611**, **611-1**, **648-1**, **654-1**, **654-2**, **655-1**, **660**, **665**, **666-1**, **672**, **678**, **686-1**, **694-1**, **698-2**, **700**, **704-1**, **844**, **892-7**, **1036-1**, **1066-3**, **1066-6**, **1071**, **1074**, **1078**, **1079**, **1146-3**, **1154**, **1160**, **1178** and **1188-1**. Even single letters are corrected in this manner: note especially **46 J**, **61-1** and **174**. Sometimes the corrections are simply written in the side margin, as appears in **4**, **15-1**, **19-1**, **67**, **426**, **548**, **648-1**, **654-1**, **679**?, **698-2**, **1064**, **1067** and **1071**. Occasionally letters were awkwardly squeezed in between those already written, as in **548** and **694-1**. In **426** the copyist has indicated that words should be transposed by using a double oblique stroke (//) at the beginning and a single one (/) at the end of the wording.

c. *Implications*

In order to draw any implications from the data presented above, a number of points should be made about the manner in which corrections occur in the MSS on my database.

First, a number of MSS (**75**, **505**, **573**, **611**, **698-2**) show that the corrections were made by the writer during the process of writing itself, which I infer means that these MSS were copied by professional scribes. The correction has been methodical in **689**. Self-correction in the course of copying a MS seems to have been the preserve of

trained scribes. If we compare the (largely confirmed) list of MSS copied by non-professional writers in Fig. 6.12 (Ch. 6, §6.12c), none of these MSS are listed in the non-professional Categories 3 / 3^{+}; all are in the professional Categories 2^{-} – 1. These results endorse once more, in a small way, the assignment of MSS presented in §4.4 (and subsequent Figures listing MSS copied non-professionally).

Second, while MSS such as **689** have been corrected systematically, many MSS show that mistakes were often missed so that checking and correction was not comprehensive, as is especially evident in **295**, **315** (*m.*1), **428**, **486**, **537**, **548**, **557**, **585**, **661**, **672**, **692**, **693**, **696**. The idiosyncratic 'exchanges' in **1066-6** (OY:ѠN, Y:N) are probably simply mistakes. However, of these thirteen MSS, only five (**537**, **548**, **557**, **672**, **693**) are in Categories 3 / 3^{+}; the other seven were assigned to Categories 2^{-} – 1, that is, were professionally produced. It follows that (unsurprisingly) even professional scribes could leave errors uncorrected, and therefore that the presence of uncorrected errors is not an infallible indication of a lack of professionalism on the part of the copyists.

Third, in contradistinction to professional copyists failing to detect errors, there are MSS which were copied by an untrained writer who has inserted corrections. In my database these MSS are in Categories 3 (**539**?, **892-7**, **902**, **914**, **1078**, **1079-2** Pl. 11) and 3^{+} (**844**, **1154** Pl. 21, **1178**). Corrections occur in a variety of forms in MSS in Categories 3 (**482**, **548**, **557**, **559**, **918**) and 3^{+} (**537**, **672**, **1154**). Predictably, corrections were not the preserve of professional scribes. However, many MSS show that careless errors were corrected, as in **4**, **7**, **28**, **55-1 J**, **56 J**, **87-2**, **88-1**, **121**, **136**, **181**, **308**, **315**, **331**, **336**, **342-1**, **362-1**, **372**, **378**, **403**, **495**, **511**, **521-1**, **559**, **565**, **569**, **578**, **579**, **584-3**, **585**, **593**, **595**, **599**, **605**, **626**, **648-1**, **661**, **672**, **674**, **677**, **691**, **692**, **693**, **694**, **694-1**, **710**, **710-1**, **849**, **863+864**, **918-4**, **949**, **952**, **953**, **968**, **1036**, **1037-5**, **1065**, **1065-1**, **1069**, **1077**, **1080**, **1150-4**, **1156**, **1159**. Of these sixty-three MSS, nineteen are in Categories 3 (**87-2**, **136**, **559**, **569**, **849**, **953**, **968**, **1065-1** Pl. 22, **1080**) and 3^{+} (**308** Pl. 34, **378**, **511**, **672**, **677**, **693**, **710-1**, **863+864**, **918-4**, **1150-4**). This shows that correction of careless errors was something which the non-professional writers were aware was important, even if they were not as aware as professional scribes were and did not execute them as comprehensively. If, then, we take the listing

of MSS in Fig. 6.12 as largely confirmed, the other forty-four of the sixty-three MSS were copied by professional scribes (Categories 2^{-} – 1). However, since correction of careless errors was not universal, it follows that their mere occurrence is not a sure guide to the professionalism of the writer responsible for their production, however indicative it might be in general.

It is patent from this data that there was a considerable variety of ways in which copyists indicated both the need for correction and also what the correct reading should be. All of these correction methods are known from MSS of other literary works copied by professional scribes.[12] As professionals, they would not have thought of doing anything else. The presence of these devices in Christian MSS shows an awareness of current conventions on the part of the copyists and a willingness to conform to them.[13] It seems that those who copied the Christian MSS were in the habit of using these methods in other contexts, and hence were professional scribes. It follows that ***those MSS with corrections indicated in any of these ways should be regarded as probably copied by scribes, rather than by non-professional writers***. Although the data here cited needs to be used with caution, we have seen that, *in most instances*, it does apply in the case of the use of critical signs and corrections made in the course of writing a MS.

McNamee has suggested that there was 'an approved canon' of correction signs, and indicates that it was current in scriptoria at Oxyrhynchus and elsewhere.[14] Yet, granting that there may have been a generally accepted set of standard correction signs which thus demonstrate a habitual professional concern to produce an accurate copy, it would be anachronistic to speak of 'scriptoria' since, as we have seen in §3.3e.ii.ζ, the word 'scriptorium' is not a useful one for this period.[15] The most that can be said about groups of scribes working together is that there may well have been a loose collaboration between them; but anything more formal is open to considerable doubt in this period. A 'tradition' of commonly used signs and methods need not imply an organised setting for the reproduction of texts.

[12] Turner, *GMAW*, 14-16.
[13] Hurtado, *Earliest Christian Artifacts*, 185-89 reviews briefly the variety of errors and corrections in Christian MSS.
[14] McNamee, *Sigla and Select Marginalia*, 24.
[15] Johnson, *Bookrolls*, 159 suggests what varieties of copying might have been done by a 'scribal shop,' but does not refer to scriptoria.

Fig. 7.3 below shows the distribution by century start-dates and content Groups of the MSS with critical signs or corrections made by the first hands, the scribes who copied the MSS. Numbers in bold type indicate the total number of MSS in that field. Those MSS with more than one entry in my *Catalogue of MSS* have been counted each time they have a code number, so that their presence in their proper Group can be registered. The only MSS with corrections from II BC to I AD occur in Group A (**46 J**, **55-1 J** and **56 J**, all in I BC) and Group I (**1093-1 J**, in I BC), not all with corrections made by *m.*1. No MSS in II BC – I AD contain critical signs.

Figure 7.3 **Numbers of MSS containing critical signs or corrections (by content Groups)**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*Total*
II AD	7	5	1	2	-	-	-	1	1	-	17
	16	**10**	**5**	**4**				**2**	**4**		**41**
III	15	19	6	11	-	6	5	2	4	-	68
	51	**53**	**12**	**24**		**15**	**5**	**2**	**22**		**184**
IV	24	15	9	14	3	12	4	4	6	1	92
	91	**53**	**22**	**26**	**4**	**42**	**9**	**7**	**19**	**2**	**275**
Total	46	39	16	27	3	18	9	7	11	1	*177*
	158	**116**	**39**	**54**	**4**	**57**	**14**	**11**	**45**	**2**	***500***

Most of the MSS not listed as containing critical signs or corrections are fragmentary or short, so it should not surprise us not to find corrections in every MS. Hence, even though at first sight the totals above appear to be low (177/500) and in themselves yield small proportions in most fields, they should be taken as evidence of a quite regular practice of correction and the less frequent use of critical signs. It is difficult to trace any trends in the usage of critical signs or corrections; but it is evident that a small proportion of MSS in most Groups contain them – a testimony to a concern for accuracy, whatever may have given rise to that concern. With regard to the central issue of this thesis, ***the presence of corrections (especially for careless errors) and particularly the use of critical signs to indicate them, has been seen to be consistent for the most part with the hand of a professional scribe – and their absence with that of a non-professional writer***.

7.3 **Marginal notes and musical notation**

Here we examine marginal notes by *m.*1 which are not concerned with corrections. See Table 25 in Vol. 2, App. 3 for a detailed list of MSS with marginal notes and musical notation.

First, some MSS, such as **254**, have marginal glosses of uncertain relevance. In **234-1**, which contains portions of the acrostic Psalm 145 (144), the names of the Hebrew letters occur in the left margin. In **15-1** *m*.1 (scribe A) inserted brief synopses in the upper margin in the NT book of Acts. In **548** the marginal notes (ΠΕΡΙ . . .) focus on topics addressed in the text, with some possible Coptic influence, and probably show that the copyist wished to include his own explanations of the Greek. The notes inserted by *m.*1 show come bilingual control, but their style is consistent with his quite irregular hand in the text of the MS, the hand of someone probably not at home in Greek and not a professional scribe. In **599** there are notes of clarification in the margin, and there is a short marginal addition in **1067**. The margins of **284** contain some contemporary glosses, mostly in Coptic, but since they are not by the original scribe they are not of the same order of relevance. Thus, the number of MSS with marginal glosses clearly in the hand of the original copyist(s) is small. If we again take the classification of MSS in Ch. 4 (§4.4) and Fig. 6.12 as largely confirmed, the skill of the copyists who included marginal notes is varied. These six MSS – omitting **284** – are assigned to Category 3 (**548**), Category 3^+ (**1067**), Category 2 (**234-1**, **254**), Category 2^+ (**599**) and Category 1 (**15-1** *m*.1). Thus, ***the small number of such notes and their diversity reveal little about the professionalism of the copyist***.

Second, **962** is quite a different case, since it contains musical notation possibly in the hand of the original writer. Besides the notes, five signs are used: (1) a superior *makron* (above notes assigned as long); (2) a curved stroke or a hyphen (below notes as legato); (3) a symbol like a half-circle (in the same line as musical notes), denoting a rest; (4) a colon (sometimes in front of the note); and (5) a single point (above the notes).[16] This is a unique papyrus amongst the early Christian MSS since it shows musical notation, and it is written in a neat hand demonstrating professional training. Its production needs to be seen, however, not so much in the context of Christian texts as of papyri with musical notation, such as *P.Oxy.* 25.2436r, *P.Cair.Zen.* 4.59533, *P.Berl.* inv. 6870v, *P.Oslo* inv. 1413, and perhaps the rare inscriptions with such notation. Its melody and 'ornamentation' may be seen as having developed from late

[16] A.S. Hunt, *P.Oxy.* 1.15, pp. 22-23.

Greek models,[17] and this would be consistent with a higher level of educational attainment, which confirms its assignment to handwriting Category 2.

7.4 **Decorations and illustrations**

A small number of MSS, such as **631-2**, include drawings or illustrations, and some contain ornate decoration such as the *coronis* etc. (e.g. **30-1**, *Codex Vaticanus*). However, we will confine this study to the decorations and illustrations of the original copyists and contemporary hands, as far as possible, ignoring the various embellishments added over later centuries. See Table 26 in Vol. 2, App. 3 for a list of MSS with details of decorations and illustrations.

In Group A many of the decorations are more or less elaborate section dividers. So, in **15-1** *m*.1, *m*.2 and *m*.3 (scribes A, B and D) each has his own distinctive forms of the *coronis* at the end of books or large sections (cf. Pl. 25).[18] In **30-1** *m*.1 and *m*.2 (scribes A and B) use various forms of the *coronis* in conjunction with a colophon at the end of each book, and some decorations around the titles.[19] The staurogram (to be discussed further in §7.10o) appears in a variety of forms; in **84** it occurs at the head of the sheet, marking the beginning of the Psalm. In the school text **136** there is a staurogram at the beginning of most pages and a cross at the beginning and end of page 9. The cross is clearly a Christian symbol in this papyrus, used instead of the staurogram, although this shape had a different significance in other papyri and was not necessarily indicative of a Christian context.[20] In **195** there is a series of seven asterisks at the top of the page, similarly signalling a beginning. Crosses are sometimes used at the beginning or end of sections, such as in **136**, **220**, **247-2** and **276**. In poetic texts, especially the Psalms, there are some MSS with ornamental line-fillers at the end of each Psalm, such as in **91-1**. The *diplê* is used in **118**, sometimes in the form of the *diplê obelismenê* with various extensions (>, >—, or >——, etc.); or *dicolon* (:) or double *dicola* (::) are used. Another mark signalling the end of one

[17] M.L. West, *Ancient Greek Music* (Oxford: Clarendon, 1992) 324-26, No. 51. Cf. A.D. Barker, 'Music,' *OCD*[3], 1011.

[18] Milne, Skeat, *Scribes and Correctors*, 22-29 discuss the various characteristics of the three scribes which they postulate for the codex, especially on the basis of the distinctive designs of the colophons. Cf. Jongkind, *Scribal Habits*, 39-59.

[19] Milne, Skeat, *Scribes and Correctors*, 87-90 similarly discuss the hands evident in *Codex Vaticanus* on the basis of various characteristics, once again including the colophons.

[20] McNamee, *Sigla and Select Marginalia*, 23 notes that a shape resembling a cross (┼) was 'common at the top left of a column of writing, sometimes to delimit the area to receive writing.'

Psalm and beginning of another is the use of a 'herringbone' pattern, composed of a series of *diplai* often with a line through them, under them, or extending from them, such as in **138**, **227-1**. In **238** various forms of an extended ornate *paragraphos* are used, along with a series of small semi-circles. In **254** there is a box design composed of ornamental forms around the title of the next major section (beginning of Proverbs 10). In these MSS most of these ornamental features are designed to alert the reader to the beginning and end of sections of the text.

In Group B a cross is written at the beginning of some items. **345** has a line with a series of inverted semi-circles above it, which serves to divide sections. There are ornamental lines in **359** on the title page (as borders) and between the Greek and Coptic texts (see Pl. 36, p. 11), and similar lines in **366** (after a dominical saying). The staurogram is used in the text at the end of an interpretative comment in **441**. In **548+557** some letters have quite elaborate ornamental (curled) lines at the beginning and end of individual NT letters, with the *coronis* at the end of 1 Peter and lines as a box around the subscription of 2 Peter, as also for the letter of Jude. Again, apart from the distinctive use of the staurogram as a representation, the decorations are mainly in the form of elaborate markers of divisions in the text.

In Group C **569** has an ornamental line at the beginning of the work, and **578**+**579**+**677** has a herringbone pattern of ornamental lines and *coronis* as well as a subscription at the end of the works included. In **593** a *diplê obelismenê* is used before a saying of Jesus (mostly before ΛΕΓΕΙ ΙΗCΟΥC). **611** contains ornamental bars and crescents, as well as lines of small decorations.

In Group D various decorations signal the end of sections, such as a row of *diplai* and horizontal dashes in **642**, asterisks and marks forming boxes around subscriptions and titles in **648-1**, a line of *diplai* and a mark like open scissors facing left in **688**, and the herringbone-patterned line at the foot of the column in **695**. Small decorations appear in **681**, and actual drawings in **631-2**.
No MSS in Group E have such features.

In Group F there are some symbols apparently designating the beginning or end of sections, although often in more elaborate form than MSS in other Groups. These

include a series of *diplai* and dashes in **722**, crosses at the beginning of **739** and **967**, an ornamental border and crosses at the end in **847**, decorative borders and ornamental hooks at the end of one work and beginning of another (including a Coptic cross, series of double and triple *diplai*, one series of about ten *diplai*, wavy lines and other symbols) in **863+864**, a rectangular ornamental piece with intertwined bands in **891**, a cross at the beginning of **892-7**, and a staurogram (with A and ω, and ⳨ with the bowl of the P open a little at the bottom) at the beginning of **849**. In **918** staurograms mark beginnings and ends, and an ornamental row of intertwined lines at the end. In **948-3** a staurogram occurs at the head of the page, and in **971** there is an initial cross, with staurograms (and KYPIE below) and horizontal lines afterwards. There are similar decorative lines at top and bottom in **1037-4**, and possible crosses at line end in **1037-5**, and a christogram and other symbols in **1050**.

In this Group we also encounter many more true symbols and some drawings – hardly a surprise since a number of these texts are amulets. There are magical signs including asterisks in **902**. In **918-3** three gammate crosses appear with three other symbols and magical ABΛANAΘANABΛA gradually reducing down the page by removing the first letter. There are a number of magical signs in **948**. In **951** there are two pairs of A and ω in the final line (one with a cross in between and the other with ⳨ in between), IXΘYC at the end, and XMΓ at the top of the page. In **968** there is the magical word (BOTPYEIΔωC) gradually reduced line-by-line to symbolise diminution of fever, and in **996-1 J** a number of magical symbols and drawings. In this group of MSS the decoration is often more elaborate, including magical symbols and drawings. Evidently, these were written not just to transmit a text, and there is no necessary correlation with the professionalism of their production. In fact, the level of professionalism (in terms of regular features of textual reproduction) is not high in many of these texts. Taking §4.4 and Fig. 6.12 as a basis, only six MSS (**722** Pl. 19, **891**, **948-3**, **951**, **1037-4**, **1037-5**) out of twenty in Group F are *not* in Categories $3 / 3^{+}$: four (**722**, **948-3**, **951**, **1037-5**) in the borderline Category 2^{-}, one (**891**) in Category 2^{+}, and one (**1037-4**) in Category 1.

The only MS of note in Group G is **1071**, which has horizontal lines right across the column, some magical symbols and numerous series of repeated letters, crescents,

words and letters laid out in columns, many superior *makra* over words and small symbols, lines forming tables with series of repeated letters inside and around, and a number of magical symbols. All of this is expected in a religious astronomical-magical text, although since it is also more 'literary' than some others and includes a large amount of material, there is a degree of professionalism in the layout of the symbols which is consonant with this more 'literary' purpose. This is consistent with its earlier assignment to handwriting Category 2^{+}. We will note this MS in relation to other matters bearing on the professionalism of its production.

In Group H (magical texts) many of the same features appear. There are numerous magical symbols, tables and pictures, and repeated letters in **1075**, **1078**, **1079**, **1080**, **1081**. **1076** has a line across the foot of the papyrus; and there are also herringbone lines (as section dividers?) in **1078**. Only two (**1078**, **1080**) are in Category 3^{+}, and none in Category 3.

In Group I one coronis (or some other marginal marking) appears in **1093-1 J**, while in **1177** some words are surrounded by ornamental lines and points. Both are in Category 1^{-}.
MSS in Group J have no such decorations.

From the above review it is clear that a substantial proportion of the decorative features are actually elaborate section markers, executed with various degrees of expertise and complexity. They vary from being quite sophisticated and professional (such as in **15-1** Pl. 25, **30-1**) to being sketchy and non-professional. Other MSS contain a small number of signs which signal the Christian content of the MS. However, we have also had cause to notice that true 'illustration' is included in some MSS, sometimes quite profusely and mostly in view of the fact that the words or figures form part of a magical text, where pictures no less than words were seen as having intrinsic power. This does not relate to the matter of the professionalism of the production of the MSS, except that if they were intended to preserve lengthy magical texts, then they seem to have been written for more than temporary use, and hence by a professional hand. Thus, ***apart from section dividers, the presence of decorations and illustrations often goes with non-professional production; but there is no firm***

link between the two except that the majority of MSS in Group F show a non-professional hand, as would be expected.

7.5 **Stichometric counts**

We know that professional scribes who copied or produced MSS for a fee were paid according to the quality of their writing and the number of lines copied (cf. Ch. 2, §2.3b.iii). Sometimes they wrote a tally of the number of *stichoi* on the MS itself, often with superior and/or inferior *makra*. However, the count of *stichoi* could serve a number of other purposes, such as being a record of the length of a book, guarding against later addition or removal of material, or locating citations by marking every 50 lines.[21] Whatever the reason for the inclusion of *stichoi* counts in individual MSS, they are sure signs that a professional scribe has done the copying.[22] Thus, Turner records that, among papyri with stichometric counts, *P.Oxy*. 6.852 (Euripides, *Hypsipyle*; II/III) is unique in not being 'commercially' produced, since it is written on the back of a documentary roll.[23] It appears to be the exception that proves the rule. Even so, while the somewhat untidy hand in *P.Oxy*. 6.852 may indicate a non-professional writer, other factors would need to be considered, because using a previously written-on roll might only mean that the commissioner supplied (or the scribe used) the only papyrus that was available at the time.

Among the MSS on my database only a few contain such stichometric counts. They all seem to indicate a record of the number of lines for the copyist's payment; and if there are no other countervailing factors, they are indications of a professional copyist having produced the MS. In fact, the handwriting and other aspects of these show that they are all professional productions. Such counts appear with superior and inferior *makra* in **15-1** at the end of most Pauline letters, apparently written by *m*.1 (Scribe A). In **30-1** there are stichometric counts in the margins of 1-4 Kingdoms and Isaiah. The first editors of **284** suggested that the subscription to this high quality papyrus codex (Ē ΟΛΟΚ^{o}) means '5 holokottonoi,' either as the cost of writing or the sale price; and on this basis they suggested that it was the product of 'a regular Greek scriptorium,'

[21] Metzger, *Manuscripts*, 38-39.
[22] Turner, *Greek Papyri*, 90, 94-95.
[23] Turner, *GMAW*, 16, and No. 31.

that is, not a Christian one.[24] However, since we have had occasion to doubt the existence of 'scriptoria' in formal terms in our period (see Ch. 3, §3.3e.ii.ζ), the inclusion of a stichometric count or a price for writing a MS by no means establishes the existence of scriptoria; but it is a reasonable supposition that the writer was a professional scribe, whether Christian or not.

There are also stichometric counts in **497** at the end of each letter, where these are extant. In **648-1**, *P.Bodm.* XXIX (*Vision of Dorotheos*), a part of the *Bodmer Codex of Visions*, the letters IΘ appear with superior and inferior *makron* (as well as an S-shaped mark to left and right) on the left of the words ΤΕΛΟC ΤΗC ΟΡΑCΕΩC, which are also encircled by a decorative border of S-shaped marks. While the first editors took IΘ as an abbreviation for I(ΗCΟΥC) Θ(ΕΟC),[25] it was more plausibly suggested by later editors that this was a reference to the number of previous lines on the page.[26] This is the most likely suggestion, despite the placement of these letters close to the subscription, within the writing space rather than in the margin, and with ornamentation around them, and despite the irregularity of the handwriting. Accordingly, this MS remains in the professional Category 2⁻. It may even be that the letters were copied from the exemplar as part of the text, without the copyist knowing what their original intention was – although this is, as always, unknowable.

The handwriting of the other MSS with ***stichometric counts*** confirms the suggestion that they ***were added by professional scribes, probably in order to calculate the payment due***, but perhaps at times to record the number of lines in a work (or section of a work), or even in order to pass on a tradition that recorded that number of lines. Thus, for the first four MSS cited above (**15-1**, **30-1**, **284**, **497**), the professionalism of their production is reinforced by the fact that they include the stichometric count; and **648-1** is probably to be viewed likewise. The assignment of these MSS to Category 2⁻ (**648-1**), Category 1⁻ (**497**) and Category 1 (**15-1** Pl. 25, **30-1**) is thus confirmed.

[24] Sanders, Schmidt, *Minor Prophets*, 19-24.
[25] A. Hurst, O. Reverdin, J. Rudhardt, *P.Bodm.* XXIX, 77.
[26] R. Kasser, G. Cavallo, J. van Haelst, 'Nouvelle description du codex des visions,' in A. Carlini, L. Giaccone, *P.Bodm. XXXVIII*, 125, n. 42.

7.6 **Accuracy of textual transmission**

In his recently published work, Royse valuably discusses in great detail the singular readings in six NT MSS, in an attempt to describe the scribal habits of their copyists.[27] The present thesis aims at a different goal: to provide greater clarity of the terminology ('professional scribe'), along with an assessment of the role of such scribes in the production of early Christian MSS. In this study I have not endeavoured to address the use of harmonisation to remote parallel readings as a means of discovering the Christian conviction of the copyists.[28] It may be more difficult to do this than appears at first sight: for example, Royse notes that five of the singular readings in **426** '*may* have arisen' (my italics) in this way.[29] The intention of the present section in my thesis is to establish from the MSS in my database whether uncorrected errors are a pointer to lack of scribal professionalism.

All MSS which are not an author's autograph were necessarily derived from an exemplar by visual copying (cf. Ch. 3, §3.2a).[30] So, errors contained in the exemplar might be carried forward and preserved, or the copyist might insert his own errors in the process of copying. The following section takes note of relevant observations about the accuracy of the copying process that are not covered elsewhere (such as in §§7.2, 7.3 above) and that bear on the professionalism of the copyist; but it is beyond the scope of the present investigation to attempt to trace the textual affinities of the MSS with other major texts or posited textual traditions. The MSS not mentioned below in Fig. 7.4 may be presumed to be accurate and careful copies on the whole. A selection of information about textual affinities garnered from editors is presented in a provisional way in Table 27 in Vol. 2, App. 3.

In Group A some mistakes are due to copying an exemplar where letters looked similar. Cursive ligatures in the exemplar of **4** *may* have caused errors either by reading two linked letters as one or one as two. Hence, the copyist may not be entirely responsible for all of the orthographic idiosyncrasies of the MS. Further, if

[27] Royse, *Scribal Habits* offers detailed treatment of **371**, **406**, **426**, **497**, **548+557** and **565**.
[28] 'Remote parallel readings' are readings from parallel passages in other works, such as another Gospel with a parallel passage to the one under review in a given Gospel MS.
[29] Royse, ibid., 536.
[30] I have noted no certain examples of MSS on my database copied by dictation. In fact, numerous MSS bear the signs of having been copied visually, since the errors are clearly due to haplography or to omission of a consistent number of letters (such as formed the normal length of a line).

abbreviations occurred in the exemplar, the copyist may have interpreted them wrongly, and thus created errors.[31] **4** also has errors which are probably due to sounding out letters wrongly, such as ΞC:KC and KX:X. **10** has an idiosyncratic text and a tendency to linguistic smoothing, which suggests some interference on the part of the copyist, although perhaps this already existed in his exemplar. Some MSS (**12**, **51 J**, **61-1**, **134-1**, **145**, **182-1**, **247-2**) contain simple copying errors which were not corrected. Others (**14**, **36-3**, **44**, **49 J**, **51 J**, **52**, **55**, **65**, **81-1**, **165**, **180**, **182-1**, **222-2**, **270**, **303**, **315**, **316**, **317-1**) have only a small number of singular readings. More numerous singular readings appear in **67** (later corrected by *m*.2), **118** (with some nonsense readings), **254**, **275** and **304**. A number of additions and omissions appear in **77-2 J**, and there are numerous variants in **252**, **255** and **263** (the last also with many omissions). There appears to be some 'unconscious revision' on the part of the bilingual scribe in **57 J**, where his obvious knowledge of the Hebrew version seems to have influenced the Greek text.[32] In **13** a space for KYPIOC was left (once) when applied to God and this was inserted by *m*.2, which suggests the planned involvement of at least these two writers. Thus, those MSS that show a high degree of singular readings in the text are **67**, **118**, **254**, **275**, **304**, and those with quite a number of copying errors are **77-2 J**, **252**, **255**, and **263**. Only in these Christian MSS (**67**, **118**, **252**, **254**, **255**, **263**, **275**, **304**), then, may we suggest some laxity in the copying process, and hence a lower degree of professionalism on the part of the copyist.

Some 'errors' have been attributed to a mishearing of what was being dictated to a copyist but, as we have noted earlier (Ch. 3, §3.2a), it would be difficult to distinguish this from the copyist himself mis-repeating what he himself read from his exemplar. The errors in **15-1** are to be ascribed to such factors as these. In that MS, *m*.3 (Scribe D) reflects the orthography of other literary papyri, but *m*.1 (Scribe A) much less so, and *m*.2 (Scribe B) even less. This might suggest a higher level of professionalism on the part of *m*.3, less for *m*.1, and even less for *m*.2; but from their handwriting it is clear that all were professional scribes.

[31] Sanders, Schmidt, *Minor Prophets*, 244-47. They plausibly suggest that many of the obvious 'errors' in **4** are due to the character of the exemplar.
[32] J.W. Wevers, 'The earliest witness to the LXX Deuteronomy,' *CBQ* 39 (1977) 240-44, here 244.

In Group B many MSS contain simple copying errors. **357** is an inaccurate copy (including errors by homoioteleuton), as are **442-1**, **473-1**, **538-1**, **543**, **547**, **547-1**. **426** has many careless errors (mostly corrected, probably by *m*.1 and the contemporary *m*.2), as do **548**, **557** and **558**. The text of **554** contains some curious corruptions of the text. MSS with a few singular readings are **351**, **355-1** (and some other errors, perhaps due to carelessness), **357**, **360**, **367**, **462-1**, **505**, **511**, **522**, **551**, **557** and **558**. A few MSS contain numerous singular errors: **342-1** (trivial mistakes), **372**, **422**, **482** and **537**. **371** is clearly copied by phrase (rather than by letter or word), which would suggest a highly experienced copyist who made 'few obvious errors.'[33] **403** and **406** are notable for having been copied accurately. Hence, those MSS in Group B probably copied by an untrained writer are **342-1**, **351**, **355-1**, **357**, **360**, **367**, **372**, **422**, **426**, **462-1**, **482**, **505**, **511**, **522**, **537**, **548**, **557**, **551**, **554**, **557** and **558**.

In Group C there are a few MSS of which to take note, including **569** (with some previously unknown material, possibly transmitted faithfully from the exemplar) and **573** (with a very corrupt text). **599** contains some careless abbreviations. Errors seem to show that the copyist of **578** was often inattentive, and that he understood his text imperfectly, so that letters and even syllables, such as in CAPK⟨IN⟩OC and ⟨KA⟩TAΞOYCIN, are omitted.[34] By way of comparison, even stonemasons could make gross errors when carving inscriptions.[35]

In Group D there are some inaccuracies in **623**; and **642** contains some material not present in later MSS. **657** has a distinctive text, but may only reflect the fluid tradition for the text of Hermas in the early centuries; **672** has numerous errors, many of which have gone uncorrected. **674** has numerous careless errors, even though the hand indicates that the copyist was a professional. Some MSS (**659**, **667-1**, **683-1** and **688**) have a number of copyist's errors. While a few are clearly copied accurately (**660**, **661** and **663**), **666-1** has a number of singular readings; in contrast, **667** has instances of non-standard word order, and is prone to omissions. In **678** OTEI appears for OΨEI, and TH occurs for ΓH, perhaps due to writing quickly or incomplete letters by the

[33] See Royse, *Scribal Habits*, 103-97, quotation from 197.
[34] C. Bonner, H.C. Youtie, *The Last Chapters of Enoch in Greek* (London: Christophers, 1937) 17.
[35] Cf. G.H.R. Horsley, R.A. Kearsley, 'Another boundary stone between Tymbrianassos and Sagalassos in Pisidia,' *ZPE* 121 (1998) 123-29; re-ed. in *IBurdurMus* 336.

copyist, or deriving from the exemplar. Some errors are clearly due to carelessness in **677** (e.g. TA MEN EΘNOC).

In Group E there is a large number of omissions of letters or even syllables in **710** (e.g. TI:TIC, TAI:TAΞIC).[36] Here corruptions are more frequent toward the end of the MS, perhaps due to the scribe becoming tired of his task or rushing to finish, although perhaps some are faithfully carried forward from the exemplar since the hand is clearly practised.[37]

In Group F **879** is not copied accurately, and **967** has instances of haplography, as well as a quotation that appears to be mixed up. Some letters are omitted in **849** (e.g. P), **895** (EIC), and **996-1 J** (CE). There is a misspelt abbreviation in **892-7** (ΑΠΟΛΗC for ΑΠΟΛΕCΗC); and N is inserted wrongly in **1035** (ΑΡΧΗ{N}C), although this is linguistically plausible.
Group G has **1065-1** with some Greek words differing from the Coptic which used Greek words, but there is nothing to be learnt about accuracy of copying from this.
In Group H **1074** is badly copied.
There is no relevance in discussing Group I because, as unknown texts, there is no way of assessing their accuracy.
Nor is there anything to be said about MSS in Group J.

This brief survey of Groups C-J highlights MSS (**569**, **573**, **578**, **599**, **623**, **642**, **657**, **659**, **666-1**, **667**, **667-1**, **672**, **674**, **677**, **683-1**, **688**, **710**, **879**, **892-7**, **1074**), which contain a number of errors on the part of the original copyists, and thus may well indicate a lesser degree of professionalism on their part. However, we should draw such a conclusion with caution, and take other factors into account before we do so, since **674**, for example, was clearly copied by a professional scribe, and yet includes a range of mistakes.

However, the MSS that show a degree of error consistent with a low level of professionalism are listed as follows (Fig. 7.4), omitting Groups G, I and J, which have no representative MSS:

[36] The first of these might be an example of gender confusion.
[37] V. Martin, *P.Bodm.* XX, 11-12.

Figure 7.4 **MSS with significant levels of singular readings or uncorrected errors**

Group A	**67**, **77-2 J**, **118**, **252**, **254**, **255**, **263**, **275**, **304** (9)
Group B	**342-1**, **351**, **355-1**, **357**, **360**, **367**, **372**, **422**, **426** (Pl. 4), **462-1**, **482**, **505**, **511**, **522**, **537**, **548**, **551**, **554**, **557**, **558** (20)
Group C	**569**, **573**, **578**, **599** (4)
Group D	**623**, **642**, **657**, **659**, **666-1**, **667**, **667-1**, **672**, **674**, **677**, **683-1**, **688** (12)
Group E	**710** (1)
Group F	**879**, **892-7** (2)
Group H	**1074** (1)

If we now compare the handwriting Categories assigned to these MSS in §4.4 (from Fig. 4.3 to Fig. 4.8) and Fig. 6.12, no clear conclusion presents itself. Only sixteen of forty-nine MSS in this list were assigned to Categories 3 (**255**, **482**, **548**, **554**, **557**, **569**, **667**, **892-7**) or 3^{+} (**252**, **511**, **522**, **537**, **558**, **657**, **672**, **677**), so ***there appears to be little correlation in general between singular readings or uncorrected errors and the level of professionalism of the copyist***. Indeed, thirty-three of the forty-nine are from the professional Categories $2^{-} - 1$. It seems, on the basis of the available evidence, that even professional scribes could create (or transmit) singular readings and uncorrected errors.

7.7 **Linguistic features**

In this section we will examine a range of linguistic features in the MSS on my database, in order to assess if they have any bearing on the issue of the professionalism of the copyists. At first sight, there might appear to be an obvious relationship, because 'poor' orthography, for example, might be expected to correlate with defective writing style. It should be asked, however, if orthographic variety reflecting current phonology, or indeed morphologically 'non-standard' forms, can be taken as a mark of a low level of education on the part of the copyist. Modern Western assumptions about orthographic and grammatical 'correctness' may not be applicable to Graeco-Roman antiquity, especially at the turn of the era when Greek was in such linguistic flux. Further, even if linguistic fluidity in Greek at that time were a pointer to a lack of educational attainment, does it follow that a low level of education implies a lack of scribal expertise?

On reflection, it would seem that being able to produce an accurate copy, with whatever orthographic and morphological peculiarities might be involved, does *not* necessarily imply that a scribe was well educated. Accurate reproduction of a text does not always depend on knowing the meaning of a text and copying it using the

orthography of V–IV BC. The correlation between scribal professionalism and 'standard' orthography and morphology is not a simple one, and will be discussed at the end of this section, after we have examined some of the more unusual aspects of the MSS on my database. With these questions in mind, we will consider the MSS from the point of view of their phonology/orthography and morphology. Two preliminary points relevant to this topic and to others examined in this study should be made before the analysis proceeds.

First, in a more fragmentary MS there may be little opportunity to observe its peculiarities, while in more fully preserved MSS these will be amply represented and able to be studied in some detail. Further, it may be that a copyist was merely transcribing his exemplar faithfully, which would then give no indication of his own ability in this area – unless he was working mindlessly, seeing obvious errors but not correcting them. As well, as with almost any MS, mistakes in individual letters are made, and we will see that some of these were corrected at the time of copying or later on, but sometimes not at all. It is rarely possible to account for these 'mistakes.' As well, it should be remembered that in these matters, as in many others involving the hand-written production and reproduction of texts in antiquity, usage was hardly ever uniform, even in one MS or by one scribe. These limitations should be kept in mind in the following discussion.

Second, in the period covered by my investigation major shifts had already begun to occur in phonology, morphology and syntax.[38] Semantics, too, reflected the major political and social factors in the Eastern Mediterranean as a result of Alexander's bringing Greek culture and language into contact with other languages, and Greek being established as the *lingua franca* of the Mediterranean. The response by a highly educated elite to much of this change was given expression in the Atticistic reaction which was visible from the late first century AD, and was itself one linguistic – and also ideological – aspect of the Second Sophistic. All these and other linguistic features are represented in the texts which comprise my database, and in their own

[38] Gignac, *Grammar of the Greek Papyri* (2 vols) reviews the phonological and morphological phenomena in the papyri. Cf. E. Mayser, *Grammatik der griechischen Papyri aus der Ptolemäerzeit* (6 vols; Berlin: de Gruyter, 1906-38; new ed. of vol. i.I by H. Schmoll, 1970); S.-T. Teodorsson, *The Phonology of Ptolemaic Koine* (*SGLG* 36; Gothenburg: University of Gothenburg, 1977); id., *The Phonology of Attic in the Hellenistic Period* (*SGLG* 40; Gothenburg: University of Gothenburg, 1978).

small way illustrate how vibrant the Greek language was across approximately half a millennium.

There are a number of linguistic features that could be examined in this study, but we have confined our focus to phonological/orthographic and morphological matters. In the following discussion, the first letters before the colon are those that appear in the papyrus, and the letters after the colon are the 'standard' (classical) spelling. Some of the differences referred to reflect the fact that the copyist was more at home in Coptic than in Greek, so that bilingual interference may be occurring; and the MSS in which this is so will be noted toward the end of this section. See Table 28 in Vol. 2, App. 3 for a detailed, although not exhaustive, list of MSS with their orthographic and other linguistic features, including some which were common.

a. *Phonology and orthography*

Under this heading we will treat linguistic features that relate to pronunciation and its reflection in orthography. As is well known, changes in pronunciation were taking place during this period, so that different vowels (or vowel combinations) came to be pronounced alike, and then spellings which gave any of the alternatives were perceived as 'correct,' or at least not 'incorrect.' Most of the MSS on our database reflect the changes in pronunciation that were taking place, seen especially in vowel exchanges (itacism being one particularly common manifestation), which were a standard feature of many MSS written in this period. We will note only those that include unexpected orthography.

Unusual vowel exchanges occur in **56 J** (Ω:ΩY), **285 J** (AY:A), **331** (AY:Ω), **490** (Ω:H) and **921** (I:O). **678** has a number of apparent itacisms, although they may be explained otherwise, such as by loss of the augment (e.g. ETOIMACI⟨N⟩: HTOIMAZEN), confusion of indicative with subjunctive moods (e.g. ΔIHΓHCHTAI: -ECETAI), as well as fluctuation in the spelling of proper names (e.g. IEPHMIAC: IEPEMIAC) – and this certainly applies to more than this one MS. **336**, **498** and **1150-2** are largely free of itacisms, and in **284[+636]** itacisms are corrected, which might indicate more educated copyists. In **677** some older forms, such as ΞYMΦOPA,

occur. Indeed, **600-1** has a case of Atticism (ΓΙΓΝѠCKѠ), just as ΓΙΓΓΝѠC[KO..] occurs in **891**, these two thus exhibiting a degree of orthographic revisionism.

Uncommon (and sometimes odd) consonant interchanges appear in **331** (M:B, B:Λ), **599** (Θ:Π) and **996-1 J** (Φ:T). Metathesis occurs in **4** (TOΔE:ΔOTE), and uncommon gemination in **4** (AA:A), **179** (ΓΓ:Γ) and **891** (ΓΓ:Γ, cited just above). While CCC:CC in **118** is understandable by gemination of sigma, it must have looked strange to the reader. **3** might show 'careless' orthography, as would suit the possibility that it is a writing exercise.[39] The uncommon form ICCTPAHΛ occurs in **473-1**. Pronunciation of consonants has also been affected, such as the loss of the Π sound (ΛHMCH: ΛHMΨH, AKATAΛIMTON:AKATAΛHMΠTON), and the inclusion of an extra sound (EXΘNOYC:EΘNOYC) in **678**.

308 is an instructive case (see Pl. 34). In his discussion of this text van Haelst suggests that the 'irregular' orthography evident in this MS, together with the poor quality of the papyrus and the cursive hand, gives a reasonable indication that the copyist was not a highly skilled scribe – indeed, not a professional scribe at all. He also concludes that the MS was executed hurriedly, 'avec les moyens du bord' (i.e. 'with the means available,' implying that there was room for error as the conditions were not ideal), by a non-professional scribe, and destined for private use.[40] His conclusion with regard to the scribe is based not simply on the character of the orthography, but on other factors as well, without which such a conclusion would be less persuasive. In a similar way, Wasserman describes **558** in these terms: 'The extraordinary format, the strange spelling, the remarkable lay-out and the irregular hand' convey the impression of an untrained writer.[41] In the *Koine* period orthography alone is no sure guide to the level of professionalism of the writer. The only exceptions in my database are **600-1**, **891** and **1150-2**, where Atticistic orthography is consistent with their classification in handwriting Categories 2 / 2^+ (see Figs 4.5, 4.7, 4.8). These three MSS and the professionalism of their writers will be revisited after

[39] Aland, *Repertorium* 1, 360. H.A. Musurillo, 'Early Christian economy. A reconsideration of *P.Amherst* 3 (a) (= Wilcken, Chrest. 126),' *CE* 61 (1956) 124-34 suggests that it is an amulet. Rahlfs, Fraenkel, *Verzeichnis*, 260 propose that the fact that it is an individual leaf, as well as having careless spelling, shows private use, perhaps serving a study purpose of some kind.
[40] J. van Haelst, 'Deux nouveaux fragments de Jérémie,' *RechPap* 1 (1961) 116.
[41] Wasserman, *Epistle of Jude*, 53.

morphological features in my database MSS have been considered. Some Atticistic forms in **677**, classified in handwriting Category 3^{+}, might suggest a more professional hand, but may well stem from the exemplar.

b. *Morphology and selected syntactic features*

Here we examine any examples of unusual morphology and some syntactic features, in order to see if there are any patterns which indicate the level of professionalism. The congruence of cases is not always maintained in **220**, while in **224** N is omitted at the end of ΔΟΥΛΩΝ, although perhaps this is simply an error. In **315** (*m*.2) the text of Daniel and Esther exhibits a range of peculiarities in orthography and grammar, which might indicate far less skill by the scribe in this respect than other copyists. The genitive is used for the accusative case in one instance in **426**. Further, the number of apparent 'errors', even by contemporary standards, seems to show a high degree of carelessness on the part of the copyist of **593**. There are some unexpected cases (e.g. ΤΟΥC ΗΜΑΡΤΗΚΟΤΕC) in **667** and peculiarities with the use of prepositions (e.g. ΥΠΟ with accusative for point of time) in **677**. Some confusion of verb and pronoun endings occurs in **739** (MOI:ME), the accusative ΚΑΘΗΜΕΡΙΝΟΝ is used for the genitive in **918-3**, and the dative ΤΗ ΨΥΧΗ for the genitive in **967** (although use of the dative was in decline).

On the other hand, there is some Atticistic influence in **30-2** with the Attic future CΥΜΒΙΒῶ. In **331** both ΓΙΓΝΩCΚΩ and ΓΙΓΝΟΜΑΙ occur. Some Attic forms are preferred to *Koine* forms in **694-1** (e.g. ΜΕΓΑΛΥΝΘΕΙΗ).

Before we discuss the implications of this brief survey of phonology/orthography and morphology, it should be noted that some MSS exhibit bilingual interference indicating that they were copied by a writer more at home with Coptic than with Greek, or at least that the copyist was familiar with Coptic. These cases include **91-1**,[42] **331**, **548**,[43] **578**, **677**, **918**, **971**, and **1035** ([A]ΡΧΗ{N}C). This last example is confirmed by the four Coptic lines at the end of the MS. In Fig. 6.12 five (**548**, **677**, **918**, **971**, **1035**) out of these seven MSS were assigned to Categories 3 / 3^{+} for

[42] A. Pietersma, *Two Manuscripts of the Greek Psalter in the Chester Beatty Library Dublin* (Rome: Biblical Institute Press, 1978) 8, n. 1.

[43] See Testuz, *P.Bodm.* VII–IX, 32 for a review of characteristics showing that a native speaker of Coptic was writing a Greek text.

handwriting, so that their lower linguistic ability (in Greek) might well have been a factor in their lower standard of writing it.[44]

What conclusions can be drawn on the basis of the brief selection of examples given above? *First*, despite a large number of MSS showing variations in orthography and morphology that were current in I–IV AD, only a few exhibit genuine linguistic peculiarities. Therefore, it follows that ***for the majority of MSS on my database, the distinction between professional scribe and non-professional writer will not be evident from an analysis of linguistic attainment***. As suggested above, accurate and regular reproduction of a text may have little to do with the educational standard of the copyist and his knowledge of what was perceived by some as 'correct' spelling and grammar. Hence, a copyist might produce an accurate copy of a text, and indeed even a copy in calligraphic form, but have little sensitivity to 'correct' orthographic and morphological forms. Of course, no education at all would almost guarantee obvious mistakes on the part of the copyist; but it appears that the spelling and grammar evident in a MS is of rather less consequence than might at first sight have been assumed.

Second, of the ten MSS mentioned above that show few signs of itacism or contain Atticistic forms (**30-2**, **284**, **331**, **336**, **498**, **600-1**, **677**, **694-1**, **891**, **1150-2**), all except **677** were originally listed in §4.4 (see Fig. 4.3 – Fig. 4.8) as being copied by professional scribes (in fact, in handwriting Categories 2 – 1). It follows that ***less itacism and some Atticistic forms are generally signs of a professional scribe***. But it should also be noted that of the twenty-six MSS listed above as containing unusual elements in orthography or morphology, leaving aside those with Coptic influence, only ten (**220**, **308** Pl. 34, **490**, **558**, **667**, **677**, **739**, **918-3**, **967**, **996-1 J**) were listed in Fig. 6.12 as having been copied by non-professional writers. So, more than half of the MSS listed with atypical linguistic features were probably copied by professional scribes. This shows that ***the presence of 'uncommon' orthography or morphology is no sure guide to the hand of a non-professional writer***. Or, rather, the terms 'uncommon' etc. are not properly applicable to these features, and occur because of a modern, anachronistic way of viewing the texts. Even some of the most professional

[44] On a deacon in early IV AD who was illiterate (in Greek), but *may* have been literate in Coptic see *NewDocs* 1.121-24, esp. 124; G.W. Clarke, 'An illiterate lector?' *ZPE* 57 (1984) 103.

scribes reflect some of these characteristics in the MSS they copied (see e.g. **56 J**, **179**, **285 J**, **331**, **426**).[45]

For the present investigation, then, these linguistic aspects cannot properly be used to assess the level of professionalism involved in the production of the MSS on my database. The only exceptions are that those copyists more familiar with Coptic than with Greek were non-professional (in Greek) on the whole, and those MSS reflecting some Atticism (and fewer itacisms) have been generally copied by professional scribes.

7.8 **Abbreviations**

Many of the MSS on my database contain abbreviations of various kinds, as do most of the inscriptions and papyri from the first four centuries AD.[46] Besides the use of *nomina sacra*, which will be discussed in §7.10 below, there are a number of common and not-so-common abbreviations that also appear. Full details are given in Table 29 in Vol. 2, App. 3.

The most common abbreviation that occurs is the omission of N at line end marked by a superior *makron* over the previous vowel. It is inserted (by mistake) when the N is present in **55**, **548** and **686-1**; and in **548** the omission of N is indicated in this way, even though the word continues on the next line. In **554** N is omitted in the middle of a line, probably through carelessness, as also in **902** in the middle of a line for the omission of N as the last letter of ΘΕ$\bar{\omega}$(N) and ΠΑΝΤ$\bar{\omega}$(N). In **356** a final M is unusually indicated once in this way.

Occasionally, a superior *makron* marks the omission of one or more letters, whether mid-word or at the end of a word, as is especially notable in **4** (where A, H, I, M, N, P, C, Y, and ω are all treated like this at times). In **610** a *makron* may represent the omission of IC at the end of a line.

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[45] See Pl. 4 for the first page of **426**.

[46] On abbreviations in inscriptions and papyri in general see A.N. Oikonomides (compiler), *Abbreviations in Greek Inscriptions, Papyri, Manuscripts, and early Printed Books – A Manual Compiled by Al. N. Oikonomides from Monographs by Avi-Yonah, Kenyon, Allen, Ostermann and Giegengack* (Chicago: Ares, 1974). Cf. J. O'Callaghan, 'Les abreviatures en els papirs grecs del N.T.,' in Janeras (ed.), *Miscellània papirològica Ramon Roca-Puig*, 241-45.

Another common abbreviation is the use of 'KAI compendium' in one of its various forms,[47] since the abbreviation of AI is a common feature in literary papyri and its use in KAI is just one example of that.[48] In **263-1** KAI is abbreviated even though a part of another word, and in **600-1** KA appears for KAI at line end as one example of KAI compendium. In **67** -AI is abbreviated at line end in a number of words, and in **331** -ΘAI and -TAI have the -AI abbreviated.

Sometimes MOY or COY are abbreviated, such as in **15-1** and **170-1**, and MOY in **133** and **599**, here again probably showing the apocopation of a syllable (-OY).

Apart from page, column or quire numbers, or Eusebian section numbers (in **394**), numbers are also often represented with the appropriate letter or letters, together with a superior *makron* or similar mark – although this might not count (strictly speaking) as an 'abbreviation.' In **559-2** an apostrophe after a letter standing for a number indicates that the number is actually a multiple of one thousand. In **678** cardinal numbers are abbreviated with letters, but ordinal numbers are not. In **118** the *makra* are superior and/or inferior (sometimes included erroneously), and in **284**, **331**, **336** and **403** there is a small space before and after.

In **52** X is written above P for EKATONTAPXOC. Sometimes EI' is written for EIΠEN or EIΠAN, as in **87-2**, **710** and **710-1**,[49] and in **648** EI' stands for EICIN. Sometimes ΔIA or ΔIAΨ stands for ΔIAΨAΛMA in Psalm headings, such as in **133** and **181**. The last few letters of some words are suspended without any *makron* or similar mark in **152-1**; and in **692** suspensions are indicated with an upstroke at the end of the word. In **286** the Greek words that are provided with Coptic translations and paraphrases are often abbreviated, as might be expected for a glossary. AΛ' appears for AΛΛA in **497**. KAI seems to stand for K(YPI)AI in **902**, but it may represent K(YPI)E (with the common vowel exchange AI:E). In **967** ωHΛ seem to be a Coptic abbreviation. In **1066-6** ΠPOC— or ΠPOC== appears for ΠPOCKYNω

[47] This is a frequent abbreviation in various forms on inscriptions as well, where KE (often in ligature) = KAI.
[48] On KAI compendium see McNamee, *Abbreviations*, 45-46 for the various forms and Part II, E. (p. 117) on the regular abbreviation of –AI.
[49] The abbreviations in **710** and **710-1** are normal for transcripts of legal proceedings, which these papyri portray in the case of those tried for their Christian faith.

ΚΑΙ ΔΟΞΑΖω, which occurs frequently in that MS. A letter with superior *makron* is given in **1154** as sufficient indication of the name of a speaker, which was perhaps written in full in an earlier part of the papyrus that is now lost. In fact, this might have taken its cue from copies of Greek drama and, if so, would be another instance where a professional scribe would know what to do on the basis of copying literary texts. Some of these abbreviations are simply idiosyncratic, but perfectly understandable in a context where it was common for abbreviations of all kinds to be used.

There is a small group of abbreviations that bear some similarity to the *nomina sacra* treated in §7.10 below. In **34-1** ΑΑΡ (without a *makron*) stands for ΑΑΡω̅Ν. There is a *makron* over ΑΙΜΑ once in **497**, but this is not an abbreviation so it is not clear why the *makron* is present. ΛΟ(ΓΟC) appears with a large Λ over a small Ο in **580**+**1074**, probably simply an abbreviation. In **589** ΠΕΤ(ΡΟΥ) occurs without a *makron*; and ΒΑ(CΙ)ΛΕΥC[Ι], Η[CΑC] (for ΗCΑΙΑC), Μω̅(ΥCΗC), ΠΡΟΦ(ΗΤ)ΑC and ΕΠΡΟΦ(ΗΤΕΥ)CΕΝ appear in **586**. ΑΠΟCΤΟΛ(ΟC) occurs in **648** but as an abbreviation not a *nomen sacrum*, as the short *makron* at the end of the word shows. ΑΒΡ(ΑΑ)Μ appears with a superior *makron* in **678**. There is a *makron* over each letter of ΙΧΘΥC in **862**, although this is more an acronym than a contraction. In **966** ΒΑ occurs with a *makron*, probably for ΒΑCΙΛΕΥC, a shorter form than in **586** noted above.

The examples cited here show that some abbreviations were quite common, although mostly not used consistently, but that sometimes *makra* or abbreviations were used in error. Some MSS show an irregularity indicating a lack of skill or care in copying, while others show the application of an abbreviation more widely than was common. However, it is also true that ***the use of certain abbreviations, such as ΚΑΙ compendium, shows an awareness of a common convention and a conformity to it, which in turn would imply a degree of training and thus professionalism.*** Where no such abbreviations occur, we may not presume a lack of training; but where they are used idiosyncratically, we may infer a lack of training and professionalism. This yields a short list of MSS which possibly show such a lack of expertise (**4**, **55**, **118**, **263-1**, **356**, **497**, **548**, **554**, **610**, **648**, **686-1**, **902**, **967**). However, if we compare this list to Fig. 6.12 as largely confirmed, only four (**548**, **554**, **902**, **967**) of the thirteen are

assigned so far to the non-professional Categories 3 / 3^{+} for handwriting. So ***mistakes in abbreviations or the use of uncommon abbreviations were possible even for professional scribes; and therefore the use of such abbreviations, however unusual, cannot be used to determine the level of professionalism employed to copy a MS***.

7.9 **The *Tetragrammaton***

The Hebrew Divine Name (יהוה) is treated in various ways in a number of the Jewish MSS in my database. The use of this name, or its translation or transliteration, may provide some evidence for the professionalism with which those MSS were produced. It may also show us how we can definitely differentiate whether the copyists of certain MSS were Jewish or Christian by conviction. For these two reasons, we now turn to an analysis of the use of the *Tetragrammaton* or its equivalent in the MSS studied here.

In the majority of Christian MSS in Group A (OT) the Divine Name is rendered by KYPIOC, mostly as a *nomen sacrum* (i.e. a form of KC), such as in **4** and **7**. However, sometimes it is given as ΘEOC (mostly as one form of ΘC), such as in **11**, **195**, and **286**. In **48-1** the simple Divine Name in the Hebrew of Lev 19.18 is rendered by the full phrase K]C O ΘC YMѠN, perhaps due to assimilation to this use in a nearby passage (vv. 31-32), although much of the reading in the latter is reconstructed in the papyrus and the whole phrase may simply be the result of a fuller reading in the exemplar. The Divine Name is rendered by KC CABAѠΘ in **295**, again perhaps simply an idiosyncratic reading. In **15** it is possible that space was left for the Divine Name, or there was a space in the exemplar, which the scribe of **15** faithfully transmitted. **46 J** has a space before and after the name, which always appears as IAѠ, an apparent phonetic equivalent to the Hebrew Name. In **56 J** the copyist left a space (with a high point at the beginning) and another hand has written in the Divine Name in Hebrew characters (although he was not entirely certain how to do so). The *Tetragrammaton* was inserted in Old Hebrew script (but left to right) in **167 J**, **275-1 J** and **285 J** (here also in different Hebrew letter forms by another hand).

On the basis of the way in which the copyists deal with the Divine Name, it has been suggested that two other OT MSS are Jewish.[50] In **5** (2nd half III AD) two *yodhs* (both in the form of a Z) with a horizontal line through the middle of each serve for the Divine Name. There is an example of the practice of a second hand writing the Divine Name (here KYPIOC) with a different 'pen' from the rest of the text in **13** (II–III AD). However, we cannot be certain that these two MSS are Jewish on this basis alone, since Jewish strands within early Christianity certainly existed throughout the period under review, as we noted in Ch. 1 (§1.4a.viii). Hence, they may only reflect current practice in Jewish-Christian groups, which did not fade away as early or as completely everywhere as is often envisaged. Such Jewish practices may well have lingered within these communities where the OT text was viewed as sacred and text reproduction was highly conservative or professionally exact. If **5** is a Christian MS, and the use of the *nomen sacrum* ΘC attests this, it is the only such example of an attempt to write something resembling Hebrew characters in a Christian MS. Its dating in III AD lends support to this ascription because by then the Jews in Egypt were far less visible owing to the Roman reaction to their revolt under Trajan. In this thesis, then, both **5** and **13** are taken as Christian MSS.

In Groups B-J one amulet (**721**) used the phrase KYPIE CABAωΘ, which does not necessarily indicate a Jewish origin; it may even come from a syncretistic environment. A number of magical papyri also have references to the God of Israel in various forms, such as IAω and AΔωNAI in **733-2**, IAω with CABAωΘ in **948**, IEAω (E above A) with CABAωΘ in **1075**, IAω in **1078** and **1079-2**, and IAω, AΔωNAI and CABAωΘ in **1080**. In **1136** Biblical Hebrew names are transcribed into Greek, with their etymological interpretation given in Greek, except for IAω or Iω. Many of these magical or semi-magical papyri make use of the Divine Name of the God of Israel, but this does not confirm a Jewish provenance. In **1074** (IV) the *Tetragrammaton* is written as ΠΙΠΤ (line 1984) perhaps as a misunderstanding, since some MSS (e.g. *Codex Marchalianus*, VI AD) do use ΠΙΠΠ for the Hebrew Divine name due to its resemblance to the Hebrew יהוה.[51]

[50] Treu, 'Bedeutung,' 142 assigns **5** and **13** to a Jewish tradition, while Roberts, *Manuscript*, 77 suggests a Christian background (although a Jewish exemplar) for **5** but a Jewish origin for **13**.
[51] Metzger, *Manuscripts*, 35 lists some other examples. See also pp. 94-95 on *Codex Marchalianus.*

In sum, the MSS mentioned above which make some use of a form of the *Tetragrammaton* in Greek were mostly Jewish, with the exception of **5** and a small number of magical papyri or Gnostic or Manichaean papyri, and one unidentified text (**1136**). The other Groups do not contain any instances of the *Tetragrammaton*, but instead largely employ *nomina sacra*, for a discussion of which see §7.10 below. ***The use of the Tetragrammaton in the MSS on my database, then, does not appear to be relevant to an assessment of the professionalism with which Christian MSS were copied***, so we will leave this matter to one side in the present study.

7.10 ***Nomina sacra***

One of the most distinctive features of Christian MSS, both Greek and Latin, is the occurrence of special abbreviations for certain words that were viewed as important in the religious outlook of those wanting them copied or to whom they belonged. Since the time of Traube, they have been known as *nomina sacra*, because the core items on the list are abbreviations of ΘΕΟC, ΚΥΡΙΟC, ΙΗCΟΥC, ΧΡΙCΤΟC, and ΠΝΕΥΜΑ.[52] The other words similarly shortened are ΑΝΘΡΩΠΟC, ΠΑΤΗΡ, ΥΙΟC, ΙCΡΑΗΛ, ΟΥΡΑΝΟC, CΩΤΗΡ and ΔΑΥΙΔ, along with a few others that are also rarely abridged in a consistent manner. Usually, they occur with a superior *makron* above the word or a major part of it. So distinctive is this set of abbreviations that even small MS fragments containing part of one have been confidently claimed to mark that MS as Christian – and rightly so.

Yet not everything about *nomina sacra* is agreed, by far. The phenomenon is one of the most frequently debated elements in the palaeography of early (and later) Christian MSS. There is no intention here to take up every aspect of the occurrence of

[52] The literature on *nomina sacra* is extensive, of which the following deserve mention: L. Traube, *Nomina sacra: Versuch einer Geschichte der christlichen Kürzung* (Munich: Beck, 1907); A.H.R.E. Paap, *Nomina Sacra in the Greek Papyri of the First Five Centuries A.D.* (Leiden: Brill, 1959); J. O'Callaghan, '*Nomina Sacra' in Papyris Graecis saeculi III Neotestamentariis* (Rome: Biblical Institute, 1970); id., 'Consideraciones sobre los '*nomina sacra*' en los papiros griegos del Nuevo Testamento (del siglo IV al VIII)' in *PapCongr*. XIII (1974) 315-20; F. Bedodi, 'I "*nomina sacra*" nei papyri greci veterotestamentari precristiani,' *StudPap* 13 (1974) 89-103; S. Jankowski, 'I '*nomina sacra*' nei papyri dei LXX (secoli II e III d.C.)' *StudPap* 16 (1977) 81-116; É. de Strycker, 'Notes sur l'abréviation des *nomina sacra* dans les manuscrits hagiographiques grecs,' in K. Treu (ed.), *Studia Codicologica* (Berlin: Akademie, 1977) 461-67; A. Millard, 'Ancient abbreviations and the *nomina sacra*,' in C. Eyre et al. (eds), *The Unbroken Reed: Studies in the Culture and Heritage of Ancient Egypt in Honour of A.F. Shore* (London: Egypt Exploration Society, 1994) 221-26; L.W. Hurtado, 'The origin of the *nomina sacra*: a proposal,' *JBL* 117 (1998) 655-73; Hurtado, 'Earliest evidence,' 271-288; id., *Earliest Christian Artifacts*, 95-134; Charlesworth, 'Consensus standardisation.'

these words in the papyri. My purpose is more circumscribed, to fit in with the goal of this thesis. In recording those MSS which include *nomina sacra* and analysing their use of them, my aim is to address two issues.

First, does their occurrence contribute in any way to an assessment of the degree of professionalism of the copyists of these MSS? We will examine this issue by observing three kinds of evidence:

– the presence of *nomina sacra* as well as the full forms of those words in the same MS;
– the variety of forms of a *nomen sacrum* in the same MS; and
– idiosyncratic forms.

Whether any of these might betray the hand of a non-professional copyist will be the question for us to address.

Second, we will offer an assessment of the assumption that the use of *nomina sacra* in a MS is a sure sign that the copyist was a Christian by conviction. This issue is central to this thesis, since we are investigating whether there was a development of scribal professional '*in* early Christian circles,' or whether Christians made use of the expertise of others at various times. The presence of *nomina sacra* is almost the only way of coming to such a conclusion about the religious convictions of the copyists of the MSS on my database, aside from the influence of remote parallel readings which are not treated here (cf. §7.6 above). As a part of this analysis, we will also examine whether they occur in any OT MSS that can definitely be assigned to a Jewish background.

We will examine the various *nomina sacra* in turn, beginning with those core items which were the major terms abbreviated in this way. For every *nomen sacrum* we will present the results in each of the content Groups. Although only the nominative case form is usually referred to, the reader should note that all other case forms have been looked at in the MSS; but they only receive mention if there is something particularly in need of discussion. We will not record those MSS that contain *only* the full form of these words, since this is irrelevant to the present investigation, however useful it would be for other purposes to document the frequency of their occurrence in Christian MSS until IV AD.

Some preliminaries, briefly. Some MSS do not contain any instances of the *nomina sacra* (e.g. **655-1**); some MSS only contain a few (e.g. **696**). This depends on the genre of the text, as well as on the state of preservation of the MS. Second, when restorations of more than one letter are involved, the entry will be given in square brackets (e.g. [**504**]), which are also used for the *nomina sacra* themselves (e.g. ΠΝ[ΟC] for ΠΝ(ΕΥΜΑΤ)[ΟC]), where confusion may otherwise arise. Uncertainty about the occurrence of the *nomen sacrum* in view is indicated by a question mark. In each Figure, the number of MSS containing the relevant *nomen sacrum* is provided after the century indication, together with the total number of MSS for that century after a slash. Where a large number of MSS are involved, Figures presenting the relevant MSS and total usages of *nomina sacra* are given before a discussion of their distinctive features in content Groups. 'Inconsistency' in use refers to the employment of the full form of a word as well its *nomen sacrum* in a MS. Variation in form will be noted as well. Dates are given in their century start-dates. The following discussion is thought to be sufficiently full so as to obviate the provision of details in an accompanying Table in Vol. 2. Tallies include each MS by the same hand in the same Group.[53]

a. *ΘΕΟC*

The common *nomen sacrum* for ΘΕΟC was the biliteral ΘC in one of its case forms, mostly in the singular (ΘC, ΘΕ, ΘΝ, ΘΥ, ΘΩ).

Figure 7.5 **MSS with ΘΕΟC as *nomen sacrum* (Group A)**

II (6/16)	*III* (24/51)	*IV* (33/91)
52, **76**, **118**, **174**, **304**, **315**	**4**, **5**, **7**, **30-2**, **36-1**, **48-1**, **75**, **81-1**, **82**, **99**, **109**, **165**, **182-1**, **238**, **254**, **263+605**, **264+265**, **284**, **286**, **293**, **298**, **303**, **317-1**	**3+536**, **8**, **11**, **15-1**, **19-1**, **21**, **27**, **30-1**, **31**, **31-1**, [**32**], **34-1**, **48-2**, **87-2+710-1**, **117**, **120**, **131**, **133**, **134-1**, **136**, **145**, **148-1**, **152-1**, **168**, **170-1**, **180**, **181**, **195**, **222-2**, **272**, **289**, **297**, **323+1083**

In Group A (Fig. 7.5) Jewish MSS make no use of this *nomen sacrum*. The *nomina sacra* are not used consistently in some MSS from II AD, so that, while the plural is not normally abbreviated, **315** *m*.2 used the full form for the plural including both ΘΝ and ΘΩΝ for ΘΕΩΝ. **148** (IV) also uses ΘΝ for ΘΕΩΝ. Inconsistency in using *nomina sacra* also appears in MSS from III (**4**, **109**, **303**) and IV (**319**, **148**?, **181**).

[53] A plus sign (+) is used to indicate that MSS form part of the one codex, or Code numbers refer to different part of the one MS. Hence they are counted in the tally for a Group, if they belong to that Group. If a MS forms part of a different Group, it is not counted in the tally for that Group.

Figure 7.6 **MSS with ΘEOC as *nomen sacrum* (Group B)**

II (4/10)	*III* (29/53)	*IV* (30/53)
336+403, **406**, **426**	**371**, **428**, **430-1**, [**467-1**], **473-1**, **485**, **488**, **492**, **495**, **497**, **498**, **501-1**, **521-1**, **522**, **524**, **526**, **528**, **534**, **536**, **536-1**, **537**, **547**, **547-1**, **548**, **555**, **557**, **559**, **559-2**, **565**	**331+597**, **345**, **353**, **359**, **367**, **386-1**, **394**, **397**, **415**, **428-1**, [**451**], **477**, **479**, **482**, **490**, **494**, **504**, **505**, **509-1**, **514-1**, [**516**], **538-1**, [**539**], [**542**], **550**, **551**, **554**, **562**, **563**, **565-1**

In Group B (Fig. 7.6) there is inconsistency in the use of the *nomen sacrum* in MSS from II (**406**), III (unusual form ΘEѠ used along with the more common forms in **548+557**) and IV AD (plural forms in **331+597**). In **554** (IV) the form XΘC occurs (along with ΘC); but it is probably a hybrid of XC and ΘC, and most likely a mistake for ΘC since that is the reading in other MSS. In **548** ΘY appears not to have a superior *makron* on one occasion.

In Group C ΘEOC occurs as a *nomen sacrum* in MSS from II (2/5: **586**, **594**), III (7/12: **569**, **599**, **603**, **605**+**263**, [**607**+**608**], **611**) and IV AD (9/22: **579**, **580**, **582**, **584-3**, **597**+**331**, **600-1**, **604**, **606**, [**611-1**]). In **584-3** the unusual forms ΘOC and ΘOY occur along with the full form.

Figure 7.7 **MSS with ΘEOC as *nomen sacrum* (Group D)**

II (2/4)	*III* (13/24)	*IV* (21/26)
667-1, **671**	**624**+**269**, **636**+**284**, **660**, **662**, **668**, **672**+**1141-1**, **683-1**, **691**, **694**, **694-3**, **695**, **696**, **700**	**623**?, **626**, **627**, **630-1**, **648**, **654-1**, **658-1**, **659**, **661**, **663**, **664**, **667**, **677**, **678**, [**679**], **686-1**, **689**+**690**, **692**, **693**, **698-2**+**263-1**

In Group D (Fig. 7.7) the full form occurs along with the *nomen sacrum* in three MSS from IV AD (**626**, **677**, **678**), with the unusual Θ without a *makron* (but with a high point) in **626**. The *makron* is missing in some cases in MSS from III (**660**) and IV AD (**648**).

In Group E the *nomen sacrum* occurs in MSS from IV AD (**704-1**, **710**) (2/4). In **710** (IV) the biliteral form is written when the prefect refers to the God of Phileas, showing the Christianising of the court proceedings as they were reworked for a hagiographical purpose.

In Group F MSS with ΘEOC as *nomen sacrum* come from III (3/15: **1035**, **1036**, **1037-5**) and IV AD (15/42: **772**, **774-5**, **844**, **863**+**864**, **879**, **891**, **892-2**, **902**, **918-4**, **953**, **955**, **966-1**, **1037-4**, [**1050**]). The full form occurs along with the *nomen sacrum*

in MSS from III (**1035**) and IV AD (**862**+**864**, **891**, **1002**). Occasionally there is no *makron* over the *nomen sacrum* in **1036** (III) and **955** (IV).

In Group G the *nomen sacrum* appears in MSS from III (1/5: **1066-6**) and IV AD (2/9: **1064**, **1070**). In **1071** the *makron* occurs over the full form ΘEOC.

In Group H this *nomen sacrum* is only used in two MSS from IV AD (2/7: **1074**, **1075**), but in none from II or III AD. However, the full form occurs as well as the *nomen sacrum* in **1075** (IV).

In Group I this *nomen sacrum* occurs in MSS from II (1/4: **1176-1**), III (8/22: **1121**, **1136**, **1146-3**, **1151**, **1152**, **1156**, **1158**, **1178**) and IV AD (8/19: **1091**, **1126-3**, **1127**, **1147**, **1157**, **1159**, **1160**, **1188-1**). The full form occurs with the *nomen sacrum* in **1091** (IV).
No forms of this *nomen sacrum* appear in Group J.

Thus, with regard to the *nomen sacrum* for ΘEOC, those MSS that used the *nomen sacrum* for the plural are **148**, **315** *m.*2 and **331+597**, this being notable because it would normally refer to the 'gods' of the nations. The MSS which contain instances of *nomina sacra* without a *makron* will be noted at the end of this section, and their significance discussed there. The following MSS contain unusual forms, or show a significant irregularity in the use of full and shortened forms of ΘEOC in the one MS, or unusual forms, which may be consistent with a lack of professionalism: in Group A (**4**, **109**, **148**, **181**, **303**, **315** *m.*2, **319**), Group B (**406**, **548+557**, **331+597**), Group C (**584-3**), Group D (**626**, **648**, **660**, **677**, **678**), Group F (**862**+**864**, **891**, **955**, **1002**, **1035**, **1036**), Group G (**1067-1**, **1071**), Group H (**1075**) and Group I (**1091**) – a total of twenty-nine MSS. If we remove those MSS containing the full forms along with this *nomen sacrum*, the thirteen MSS remaining are **148**, **315**, **331+597**, **548+557**, **584-3**, **626**, **648**, **660**, **955**, **1036** and **1071**.[54] The reason for this restricted list will be explained at the end of this whole section (see §7.10q), when the results for all the *nomina sacra* are analysed and their implications discussed.

[54] In the summary lists of MSS at the end of each sub-section, tallies simply count the total numbers of MSS.

b. *KYPIOC*

The most common *nomen sacrum* for KYPIOC was the biliteral KC in one of its case forms, usually in the singular (KC, KE, KN, KY, Kω). There was some fluidity, with some MSS using a triliteral form (KOC, etc.).

Figure 7.8 **MSS with KYPIOC as *nomen sacrum* (Group A)**

II (10/16)	*III* (33/51)	*IV* (60/91)
33, **47-1**, **52**, **61-1**, **76**, **112-1**, **118**, **179**, **304**, **315**	**4**, **7**, **14**, **30-2**, [**36-1**], **40**, **42**, **43**, **44**, **62**, **75**, **77-1**, **85-1**, **92**, **99**, **101**, **109**, **125**, **182-1**, **238**, **238-1**, **254**, [**273-2**], **275**, **284**, **293**, **295**, **298**, **300**, **303**, **314**, **317-1**, **318**	**8**, [**10**], **15-1**, **19-1**, **30-1**, **31**, **31-1**, **32**, **34-1**, **39**, **48-2**, **55**, **61**, **64-1**, **65**, **66**, **67**, **87-2**, **90**, **91-1**, [**112-2**], **120**, **131**, **133**, **134-1**, **136**, **138**, **142**, **143**, **145**, **148-1**, **168**, **170-1**, **180**, **181**, **195**, **205**, **211-2**, **214**, **220**, **222-2**, **223-1**, **234-1**, **239**, **239-2**, **246-1**, **247-2**, **272**, **276-1**, **282**, **289**, **291**, **297**, **299**, **301**, **305**, **307-1**, **308**, **316**, **323**

In Group A (Fig. 7.8) no Jewish MSS make use of KYPIOC as a *nomen sacrum*. The full form occurs along with the *nomen sacrum* in MSS from III (**303**, **318**) and IV AD (**19-1**, **170-1**, **239**). Some uses of the *nomen sacrum* seem to be 'profane,' that is, used to refer to people who were not seen in divine terms, in MSS from III (**4**, **7**) and IV AD (**8**, **66**, **67**). Triliteral forms occur in **43** (KPC, KPY) (III), and the triliteral along with the biliteral form in **318** (KON) (III).

Figure 7.9 **MSS with KYPIOC as *nomen sacrum* (Group B)**

II (4/10)	*III* (25/53)	*IV* (17/53)
336+403, **406**, **426**,	**332**, **356**, **371**, **374**, **380**, [**426-1**], [**473-1**], [**485**], **495**, **497**, **498**, [**501-1**], **521-1**, **522**, **526**, **528**, **537**, **547**, **547-1**, **548+557**, **555**, **558**, **559-2**, **565**	**331**, **345**, **355-1**, [**359**], **366**, **378**, **415**, **451**, [**467-2**], **477**, **479**, **490**, **496**, **504-1**, **505**, **516**, **565-1**

In Group B (Fig. 7.9) the full form occurs along with the *nomen sacrum* in MSS from II (**406**, **426**), III (**356**, **548+557**) and IV AD (**331**).

In Group C this *nomen sacrum* appears in MSS from II (2/5: **586**, **598-1**), III (3/12: **569**, **599**, **611**) and IV AD (10/22: **578+579**, **584-3**, **597**+**331**, **600-1**, **604-1**, **606**, **607**+**608**, **611-1**). The common biliteral forms occur along with the triliteral form KPC in **611** (III) and KON in **569** (III). KOC occurs in **584-3** (IV) as the only form.

In Group D the MSS with KYPIOC as *nomen sacrum* are from III (12/24: **624**, **636**+**269**, **659-1**, **660**, **662**, **664-1**, [**668**], **672**+**1141-1**, **682**, **688**, **691**, **695**) and IV AD (13/26: **627**, **648**, **654-1**, **658-1**, [**659**], **661**, **663**, **664**, **667**, **677**, **678**, **679**, **693**). The triliteral form KOY occurs (along with KC and the occasional lack of a superior

makron on the shorter form) in **660** (III). The *makron* is also absent on occasion in **664** (IV).
In Group E K[N] is restored in **710** (IV: 1/4).

In Group F no Jewish MSS use this *nomen sacrum* (see **911 J**), but it appears in MSS from III (1/15: **1037-1**) and IV AD (15/42: **772**, **863**+**864**, **891**, **918-4**, **918**, **918-1**, **948-3**, **949-2**, **966**, **967**, **971**, **998**, **1002**, **1037-4**). The full form occurs with KC in **864** (IV). Although it has been suggested that **966** is a Jewish MS,[55] the occurrence of the *nomen sacrum* KE (as well as ΘC) is against it.

In Group G the only MS with this *nomen sacrum* is **1064** (IV: 1/9), and there is none from III.
In Group H only **1074** and **1080-1** (IV: 2/7) use KC, and none earlier.
In Group I only MSS from II (2/4: **1150-3**, **1130**) and III AD (2/22: **1190-1**, **1142-5**) have KC, but MSS from IV must have had it too. The *makron* is missing once in **1142-5** (III).
There are no MSS in Group J with this *nomen sacrum*.

Thus, the MSS with significant irregularity in their use of KYPIOC as a *nomen sacrum* are in Group A (**4**, **7**, **8**, **19-1**, **66**, **67**, **170-1**, **239**, **303**, **318**), Group B (**331**, **356**, **406**, **426**, **548+557**), Group C (**569, 611**), Group D (**660**, **664**), Group F (**864**) and Group I (**1142-5**) – a total of twenty-two MSS. If we remove those MSS with inconsistency of use, the list is reduced to **4**, **7**, **8**, **66**, **67**, **318**, **569**, **611**, **660**, **664** and **1142-5** – eleven MSS.

c. *IHCOYC*
A common abbreviation for IHCOYC (always in the singular, and referring to Joshua or Jesus)[56] was one of the biliteral forms IC, IN, IY. Some triliteral forms also occur (IHC, IHN, IHY), and these will be noted below.

[55] G.D. Kilpatrick, 'Dura-Europos: the parchments and the papyri,' *GRBS* 5 (1964) 222, n. 14.
[56] The occurrences of *nomina sacra* for IHCOYC referring to Joshua should be counted as examples of 'profane use,' since they do not refer to Jesus.

In Group A this *nomen sacrum* does not occur in Jewish MSS, but does occur in Christian MSS from II (1/16: **52**) and IV AD (3/91: **15-1**, **30-1**, **195**), but none from III AD. Nevertheless, we can be confident that it must have been used in III, since it was used in II and IV AD; even a pool of 51 MSS *may* be unrepresentative. Triliteral forms occur in MSS from II AD (**52** with biliteral forms as well; **61-1**). The full form occurs with the *nomen sacrum* in **15-1**, but only rarely.

Figure 7.10 **MSS with IHCOYC as *nomen sacrum* (Group B)**

II (6/10)	*III* (30/53)	*IV* (16/53)
336+403, **406**, **426**, [**462**], **462-1**?	**332**, **356**, [**360**], **371**, **416-1**, **422**, **426-1**, **428**, **430-1**, **444**, **448**, **459**, **461-2**, **462-2**, [**467-1**], **467-2**, **473**, **485**, **492**, **495**, **497**, **522**, **524**, [**528**], **537**, **548**+ **557**, **558**, **559**, **565**	**331**, **353**, **359**, **378**, [**379**], **386-1**, **396**, **397**, **415**, **428-1**, **436**, **451**, **477**, **490**, **516**, [**554**]

In Group B (Fig. 7.10) the full forms of IHCOYC occur along with the *nomen sacrum* in **356** (III, biliteral and triliteral forms). Triliteral forms occur in MSS from III (**371**, **416-1**, **422**, **428**, **430-1**, **448**, **461-2**, **473-1**, **485**, **558**) and IV AD (**378**, **428-1**, **467-2**, **490**, [**554**]), and these occur together with biliteral forms in MSS from II AD (**406**), III (**459**, **497**, **548**) and IV AD (**396**, **436**).

In Group C this *nomen sacrum* appears in MSS from II (2/5; **586**, **594**), III (7/12, **579**, **587-1**, **587**, **593**, **599**, [**608**], **611**) and IV AD (6/22; **597**, **604**, **606**, **607**+**608**, **611-1**). The triliteral form occurs in MSS from III (**593**, [**608**], **611**) and IV AD (**604**, **607**+**608**), and the triliteral form occurs along with the biliteral form in **611-1** (IV). The unusual biliteral form (IH) occurs in **586** (II AD), as well as **587** (III) and **587-1** (III). IHYC occurs (as does the biliteral form) in **599** (III).

In Group D this *nomen sacrum* occurs in MSS from II (1/4; **671**), III (6/24; **682**, **688**, **691**, **694-3**, **699**, **700**) and IV AD (4/26; **678**, **689+690**, **693**). The uncommon IHYC occurs (as does the biliteral form) in **678** (IV).
In Group E this *nomen sacrum* occurs as the triliteral form in **710** (II: 1/4).

In Group F this *nomen sacrum* appears in MSS from III (3/15: **722**, **1035**, **1036**) and IV AD (13/42: **772**, **844**, **863**+**864**, **879**, **892-7**, **891-1**, **902**, **918-1**, **948-3**, **953**, **998**, **1037-4**). The triliteral form occurs in **902** (IV), **1035** (III) and **1037-4** (IV). The full form occurs along with the biliteral form in **722** (III). The unusual biliteral form IH occurs in **918-1** (IV), and the biliteral form appears without a *makron* in **948-3** (IV).

There are no MSS with this *nomen sacrum* in Groups G or H.

In Group I it occurs in MSS from II (1/4: **1130**), III (4/22: **1145**, **1151**, **1154**, **1136**) and IV AD (2/19: **1160**, **1159**).
In Group J **1224** (IV: 1/2) has IC.

Therefore, the MSS with significant irregularity in their use of IHCOYC are from Group A (**52**), Group B (**356**, **396**, **406**, **436**, **459**, **497**, **548**), Group C (**586**, **587**, **587-1**, **599**, **611-1**), Group D (**678**) and Group F (**722**, **918-1**, **948-3**) – a total of seventeen MSS. If we remove the one MS that uses both full forms and *nomina sacra*, or the triliteral forms alone, this list is reduced by one (**356**) to sixteen.

d. *XPICTOC*

Common forms of the *nomen sacrum* for XPICTOC were always in the singular and consist of XC, XN, XY, and Xω; but the longer triliteral forms (XPC, XPN, XPY and XPω) are not uncommon, and will be noted where they occur. Due to the prevalence of itacism, XPHCTOC will be counted as equivalent to XPICTOC, unless there are clear indications that this is not what was intended.

In Group A this *nomen sacrum* occurs in MSS from II (1/16: **118**) and IV AD (6/91: **15-1**, **30-1**, **66**, **67**, **133**, **181**), with the triliteral forms in **118**. In **133** (IV) the biliteral XC occurs for the adjective XPHCTOC, where the writer has presumably wrongly taken the word as a reference to Christ (with *Koine* orthography), although perhaps with good reason since it occurs in the sentence [ΓΕΥCACΘΕ ΚΑΙ ΙΔΕΤΕ] ΟΤΙ ΧΡΗCΤΟC Ο ΚΥΡΙΟC.

Figure 7.11 **MSS with XPICTOC as *nomen sacrum* (Group B)**

II (4/10)	*III* (21/53)	*IV* (9/53)
336+403, **406**, **426**	**332**, **371**, **430-1**, **473**, **485**, **492**, **495**, **497**, **498**, **501-1**, **521-1**, **522**, **524**, **528**, **537**, **548+557**, **555**, **558**, **559+44**, **565**	**331**, **397**, **490**, **505**, **509-1**, **516**, **550**, [**554**], **565-1**

In Group B (Fig. 7.11) the triliteral forms occur in MSS from III (**430-1**, **473**, **485**, **521-1**, **548**+**557**, **555**, **558**) and IV AD (**490**, [**516**], **565-1**). Both triliteral and biliteral forms occur in **497** (III), while biliteral forms occur in MSS from III (**498**, **537**) and IV AD (**550**). In **548** the adjective XPHCTOC is once mistakenly treated as a *nomen*

sacrum and written as XPC. In **554** (IV) the form XΘC occurs (probably as a hybrid of XC and ΘC, and most likely a mistake for ΘC), and in **371** (III) the adjective [XPA]NOYC occurs as an abbreviation for the cognate XPICTIANOYC. In **345** (IV) XPYCTOY occurs in full, the error in spelling possibly carried forward by the copyist from the examplar, and not being made a *nomen sacrum* because of the Y.

In Group C XPICTOC appears as a *nomen sacrum* in MSS from III (4/12: **599**, **607**+**608**, **611**) and IV AD (4/22: **597**+**331**, **604-1**, **606**, **611-1**), but none from II AD. The triliteral form is used in MSS from III (**599**, **608**+**607**, **611**) and IV AD (**604-1**, **611-1**), while in **606** (IV) both biliteral and triliteral forms occur.

In Group D this *nomen sacrum* is used in MSS from II (1/4: **671**), III (5/24: **681**, **682**, **688**, **694-3**, **700**) and IV AD (7/26: **677**, **678**, **679**, **689**+**690**, **694-1**, **693**). The triliteral form is used in **681** (III), and both biliteral and triliteral forms (as well as the full form) are used in **678** (IV).
There are no MSS in Group E which use this *nomen sacrum*.

In Group F XPICTOC appears as a *nomen sacrum* in MSS from III (3/15: **722**, **1035**, **1036**) and IV AD (11/42: **844**, **862+863**+**864**, **879**, **891-1**, **892-7**?, **902**, **918-1**, **953**, **998**), but not **911 J** from I AD. The triliteral form is used in MSS from IV (**902**, **1037-4**), and both biliteral and triliteral forms occur in **862**+**863**+**864** (IV), along with XPHCTOC in full. It is possible that the latter was in the copyist's exemplar, and he did not use the *nomen sacrum* because of the orthography, but (as for **648-1** above) the frequency of the H:I vowel exchange makes this less likely than for XPYCTOY in **345** in Group B above. In **722** (III) the full form occurs along with XY. The use of XC is infrequent (in comparison to the full form) in **892-7**. Idiosyncratic forms of this *nomen sacrum* are the four-letter XPHC in **1035** (III) and X (for XY) in **998** (IV).

In Group G only **1066-1** (III: 1/5) has this *nomen sacrum* (in the triliteral form), and there are no instances in MSS from IV AD.
In Group H there are no MSS with this *nomen sacrum*.
In Group I a few MSS from III (3/22: **1159**, **1152**, **1156**) and IV AD (1/19: **1148**) contain this *nomen sacrum*, with **1156** using the triliteral form.
No MSS in Group J contain the *nomen sacrum* for XPICTOC.

Therefore, the MSS with significant irregularity in their use of XPICTOC are from Group A (**133**), Group B (**497**, **548)**, Group C (**606**), Group D (**678**) and Group F (**722**, **862+863+864**, **892-7**, **998**, **1035**) – twelve MSS. Removing the two MSS which alone show inconsistency of usage or a biliteral (or triliteral) system (**722**, **892-7**), this list is reduced to ten.

e. *ΠΝΕΥΜΑ*

When used for the divine (Holy) 'Spirit' the common forms of *nomina sacra* for ΠΝΕΥΜΑ were ΠΝΑ, ΠΝC (or ΠΝΟC), ΠΝΙ; but this *nomen sacrum* also appears idiosyncratically in the plural for 'spirits,' and thus in some different forms, which will be noted below.

In Group A the MSS with ΠΝΕΥΜΑ as *nomen sacrum* are from II (4/16: **52**, **118**, **174**, **315**), III (11/51: **4**, **7**, **75**, **238**, **263**+**605**, **264**+**265**, [**275**], **284**, **293**, **317-1**) and IV AD (9/91: **15-1**, **19-1**, **30-1**, **133**, **152-1**, **170-1**, **263-1+698-2**, **289**, **291**). No Jewish MSS contain this *nomen sacrum*. The full form occurs (along with ΠΝΑ) in **263** (III). The plural is abbreviated as a profane use in some MSS of II AD: ΠΝΑΤ$\bar{\omega}$Ν in **52**, ΠCΙΝ in **118**, and ΠΝΑ (for ΠΝΕΥΜΑΤΑ) in **315** along with the full form by *m*.2. The full form appears with the *nomen sacrum* in **15-1** (IV) and **30-1** (IV), but very rarely, and the *nomen sacrum* (in its compounds) in a variety of forms.

In Group B MSS with ΠΝΕΥΜΑ as *nomen sacrum* are from II (4/10: **336**+**403**, **406**, **426**), III (15/53: **332**, **336-1**, **371**, **428**, **430-1**, **473-1**, **485**, **493-1**, **497**, **522**, **537**, **547**, **548**, **565**), and IV AD (13/53: **331**, **378**, **386-1**, **477**, **478**, **479**, **482**, **490**, [**504**], **505**, **539**, **561**, **562**). The four-letter ΠΝΟC occurs (as does ΠΝΙ) in **336** (II AD), and Π[ΝΟC] in **504** (IV). As for the plural, ΠΝΤΑ occurs in **485** (III) and ΠΝ$\bar{\omega}$Ν in **497** (along with the shortened form of adjectives, ΠΝΚΟC, ΠΝΙΚΟΝ, ΠΝΚΟΝ, whose form was presumably influenced by the *nomen sacrum*, but whose meaning should probably have precluded the term being used for them). The idiosyncratic forms (ΠΝΤΙ, ΠΝΑΙ) and adjectival forms (ΠΝΑ[ΤΙΚΟC], ΠΝΑ[ΤΙΚΑC]) occur (along with ΠΝΙ) in **548**+**557** (III).

In Group C ΠΝΕΥΜΑ occurs as a *nomen sacrum* in MSS from III (3/12: **599**, **605**+**263**, **611**) and IV AD (8/22: **578**, **597**, [**600-1**], **604-1**, **606**, **607**+**608**, **610**), but not II AD. The full form of the singular occurs with ΠΝΑ in **605** (III), while ΠΝΑΤѠΝ and ΠΝΙΚΗΝ appear in **597** (IV) and ΠΝΤΑ (with ΠΝΑ) in **604-1**.

In Group D this *nomen sacrum* occurs in MSS from III (4/24: **660**, **672**, **682**, **694-3**) and IV AD (10/26: **642**, **654-1**, **658-1**, **661**, **677**, **678**, **689**+**690**, **694-1**, **693**), but not II AD. The full form occurs with ΠΝΑ in **677** (III), while the full ΠΝΕΥΜΑΤΙ occurs with ΠΝΕC (a scribal error for ΠΝΕΥΜΑΤΟC?) and ΠΝΑ in **678** (IV). The forms ΠΝΟC, ΠΝΚΟC and ΠΝΚΑ occur in **693** (IV). ΠΝΚѠΝ and ΠΚѠC occur in **694-3** (III), although the latter has little context to guide us in its interpretation as a shortened form of ΠΝΕΥΜΑΤΙΚΟC (with Ѡ:O interchange) or ΠΝΕΥΜΑΤΙΚѠC. ΠΝΚΗ and ΠΝΚΗC occur in **694** (III). The *nomen sacrum* ΠΝΑ is used (without *makron*) for both singular and plural in **660** (III). It appears that ΠΝ is used alone in **672** (III) and the form ΠΝѠ[Ν] occurs in **654-1** (III).

In Group E only **710** has the *nomen sacrum* (IV: 1/4).
In Group F MSS in IV AD use this *nomen sacrum* (8/42: **772**, **864**, **879**, **891-1**?,[57] **918-4**, **953**, **1002**, **1037-4**), but not I or III AD. In **1002** (IV) the full forms ΠΝΕΥΜΑ and ΠΝΕΥΜΑΤΑ occur along with ΠΝΑ.
In Group G only two MSS from IV AD (2/9: **1066-3**, **1066-2**) have this *nomen sacrum*, and none from III AD.
No MSS in Group H use it.
In Group I MSS from III (1/22: Π]ΝΑ **1133**) and IV AD (2/19: [**1149-2**], **1159**) use the *nomen sacrum*. The form ΠΝΟC occurs in **1159** (IV).
In Group J only **1224** (IV) has this *nomen sacrum*.

Thus, the MSS with significant irregularity in use of ΠΝΕΥΜΑ are from Group A (**52**, **118**, **263**, **315** *m*.2), Group B (**485**, **497**, **548**+**557**), Group C (**597**, **604-1**, **605**), Group D (**654-1**, **660**, **672**, **677**, **678**, **693**, **694**, **694-3**) and Group F (**1002**) – a total of twenty MSS. Removing the four MSS that include both full forms and this *nomen*

[57] In **891-1** the part of the papyrus with the possible *nomen sacrum* is quite damaged, so that it is difficult to confirm its presence, as I have found by autopsy.

sacrum (**263**, **605**, **677**, **1002**), but retaining the MSS that use it in the plural, reduces the list to sixteen.

f. *ΑΝΘΡ ѠΠΟC*

Common forms of contraction for ΑΝΘΡѠΠΟC were ΑΝΟC, ΑΝΟΝ, ΑΝΟΥ, ΑΝѠ, and (in the plural) ΑΝΟΙ, ΑΝΟΥC, ΑΝѠΝ, ΑΝΟΙC. Other forms will be noted below.

In Group A no Jewish MSS contain this *nomen sacrum*. The MSS with ΑΝΘΡѠΠΟC as *nomen sacrum* are from II (3/16: **33**?,[58] **52**, **118**), III (9/51: **109**, **238**, **254**, **263**, **264**+**265**, **275**, **284**, **314**) and IV AD (17/91: **15-1**, **19-1**, **30-1**, **34-1**, **48-2**, **67**, **112-2**, **133**, **142**, **143**, **170-1**, **211-2**, **282**, **289**, **299**, **307-1**, **316**). In **118** (II AD) the common forms occur, as does the idiosyncratic ΑΝΠΟΥC. **264** (III) has no *makron* above ΑΝΟΥ once. ΑΝΘΡѠΠΟC occurs in full in **263** (III), as well as in the common contracted forms and the longer ΑΝΠΟC (the copyist using quite a variety of *nomina sacra* for this word). The full form also appears in **109** (IV) along with the unusual ΑΝΠΝ. In **307-1** (IV) ΑΝΘC seems to have been written as the beginning of the full form, and then with the C to complete a *nomen sacrum*; or, it may reflect some experimentation, as with other similar examples cited below.

In Group B the MSS with ΑΝΘΡѠΠΟC as *nomen sacrum* come from II (2/10: **406**, **426**), III (6/53: **422**, **459**, **497**, **557**, **559-2**, **565**) and IV AD (15/53: **331**, [**342-1**], **351**, **353**, **361**, [**368**], **386-1**, **394**, **477**, **479**, **482**, **494**, **504**, **505**, **563**). In **565** (III) the unusual form ΑΘΝ (= ΑΝΘΡѠΠѠΝ) occurs; and in **353** ΑΟΥ appears for ΑΝΟΥ.

In Group C the *nomen sacrum* occurs in MSS from II (1/5: **594**), III (2/12: **605**+**263**, **611**) and IV AD (2/22: **584-3**, **585**). In **605** (III) the full form occurs along with ΑΝΟC, as well as ΑΝΠΟC, ΑΝΘΝ, ΑΝΘΠΝ, ΑΝΘΠѠ, ΑΝΠΥ (and ΑΝΠΟΥ). In

[58] Rahlfs, Fraenkel, *Verzeichnis*, 139 suggest that the restored full forms in the ed. pr. are too long, and hence that probably ΑΝΟC should be read in two instances.

611 ANΠC and ANNѠN occur.[59] In **584-3** the unusual forms ANΘΠѠ and AN[Θ(PѠ)Π- occur as well as the full form.

In Group D MSS with this *nomen sacrum* are from III (3/24: [**665**], **694**, **700**) and IV AD (8/26: **627**, **654-1**, **658-1**, **677**, **678**, **694-1**, **693**, **698-2**+**263-1**). In **694** (III) forms of ANΠOC occur (as well as ANѠ), and in **677** (IV) ANOC occurs with ANC and the full form. In **678** (IV) the full form occurs along with ANC, ANΘC, AΘC, AΘOC, AΘѠN (accusative singular, presumably due to the interchange Ѡ:O), genitive plural as ANΘѠN, ANΘN and AΘN; and (dative plural) ANΘIC. In **698-2** (IV) the full form is used along with ANOC (sometimes without a *makron*).
There are no MSS from Group E which use this *nomen sacrum*.

In Group F only MSS from IV AD (2/42: **879**, **892-2**) use this *nomen sacrum*, and none from I or III AD. In **879** (IV) the form ANΘY is used along with ANOYC.
In Group G MSS from III (3/5: **1066-6**, **1065-1**, **1065**) and IV AD (1/9: **1066-2**) make use of this *nomen sacrum*.
No MSS in Group H have this *nomen sacrum*.
Only two MSS in Group I have this *nomen sacrum* – **1151** (III: 1/22) and **1160** (IV: 1/19). In **1151** the idiosyncratic ANΘPΠ[occurs, although there is some debate about this reading.
No MSS in Group J (0/2) use this *nomen sacrum*.

Therefore, the MSS with significant irregularity or idiosyncrasy in their use of ANΘPѠΠOC are from Group A (**109**, **118**, **263**, **264**, **307-1**), Group B (**353**, **565**), Group C (**584-3**, **605**, **611**), Group D (**677**, **678**, **694**, **698-2**), Group F (**879**) and Group I (**1151**) – a total of sixteen MSS. The list without those MSS containing full forms along with *nomina sacra* comprises the same sixteen MSS.

g. *ΠATHP*
The common contractions as *nomina sacra* for ΠATHP were ΠHP, ΠPA, ΠEP, ΠPC, ΠPI, and similar plural forms; other different forms will be noted below.

[59] It is of note, however, that in the latter the second N has a point above it (by *m*.1), presumably to indicate that it was written by mistake. Cf. Testuz, *P.Bodm.* X, 44 (note on l. 2).

In Group A no Jewish MSS make use of this *nomen sacrum*. It occurs in Christian MSS from II (2/16: **52**, **118**), III (3/51: **43**, **62**, **254**) and IV AD (9/91: **15-1**, **19-1**, **27**, **30-1**, **31**, **65**, **67**, **133**, **311-1**). In **52** (II AD) the forms ΠΡ and ΠΤC occur. The full form is used along with the *nomen sacrum* in **118** (II AD; with ΠΡC, ΠΡOC) and **254** (III). In **19-1** (IV) *m*.1 consistently uses ΠΗΡ, while *m*.2 uses the biliteral ΠΡ.

In Group B this *nomen sacrum* has instances in MSS from II (2/10: **406**, **426**), III (13/53: **360**, **380**, **428**, [**442-1**], **448**, **459**, **461-1**, **473-1**, **497**, **548+557**, **555**, **565**) and IV AD (8/53: **331**, [**345**], **353**, **359**, **436**, **490**, **516**, **561**). In **406** and **426** the short form ΠΡ occurs together with the triliteral ΠΗΡ, which is evidence of a variety of use in the early period. The short forms ΠΡ and ΠC occur in **360** (III) (with ΠΡC etc.), **428** (III), [**442-1**] (III), and (with ΠΗΡ and the unusual form ΠΑΡΙ) in **497** (III). **548**+**557** (III) contain the forms ΠΤΡΑ, ΠΑΡ and ΠΡC as well as others, while **555** (III) has the form ΠΑΡC. **359** (IV) made use of ΠΡ as well as ΠΗΡ (and also the full form in the latter), and **345** appears to have also used the short form ΠΡ.

In Group C this *nomen sacrum* appears in MSS from II (2/5: **586**, **594**), III (3/12: **594**, **599**, **611**) and IV AD (2/22: **578**, **611-1**). In **594** (II) ΠΡΑ occurs as well as the abbreviated ΠΡΙΔΙ (for ΠΑΤΡΙΔΙ), the latter a kind of mistake of a different order from the plural of KC or ΘC.

In Group D this *nomen sacrum* occurs in MSS from III (3/24: [**660**], **672**+**1141-1**, **681**) and IV AD (8/26: **627**, **648**, **654-1**, **677**, **678**, **689**, **690**?, **694-1**), but not in those from II AD. In **672** (III) the uncommon biliteral forms (ΠΡ, ΠΙ, ΠΑ) occur, as well as the full forms. The full form occurs in **677** (IV) along with the biliteral *nomen sacrum*. In **678** (IV) the full form occurs along with the triliteral forms and ΠΤΡΝ.
No MSS in Group E contain this *nomen sacrum*.

In Group F this *nomen sacrum* appears in MSS from IV AD (5/42: **864**, **879**, **892-6**, **918-1**, **1037-4**), but none from I or III AD. In **864** (IV) the full form is used along with ΠΡC, as also in **1037-4** (IV). In **879** (IV) the biliteral ΠΑ occurs as well as the triliteral form.

In Group G this *nomen sacrum* occurs in MSS from III (2/5: **1064**, **1066-6**) and IV AD (3/9: **1066-2**, **1066-3**, **1066-5**). In **1064** both biliteral and triliteral forms occur, and in **1066-5** there is no *makron*.
There are no MSS in Group H with this *nomen sacrum*.

In Group I MSS from III (1/22: **1151**) and IV AD (3/19: **1149-2**, **1160**, **1159**) make use of it, and the unusual form ΠΤΡ occurs in **1149-2** (IV).
No MSS in Group J contain this *nomen sacrum*.

Thus, the MSS with significant irregularity in use of ΠΑΤΗΡ are from Group A (**52**, **118**, **254**), Group B (**345**, **359**, **360**, **406**, **426**, **497**, **548+557**, **555**), Group C (**594**), Group D (**672**, **677**, **678**), Group F (**864**, **879**, **1037-4**), Group G (**1064**, **1066-5**) and Group I (**1149-2**) – a total of twenty-two MSS. Removing those MSS containing a mixture of full forms and *nomina sacra* (**118**, **254**, **677**, **864**, **1037-4**) reduces this list to seventeen.

h. *ΥΙΟC*
The *nomina sacra* for ΥΙΟC were ΥC, ΥΥ, ΥΝ, ΥѠ, and some plurals. Only uncommon forms will be noted below.

In Group A this *nomen sacrum* appears only in MSS from IV AD (5/91: **15-1**, **19-1**, **30-1**, **67**, **282**).

In Group B ΥΙΟC occurs as a *nomen sacrum* in MSS from II (2/10: **406**, **426**), III (6/53: **332**, **336-1**, **360**, **371**, **497**, **555**) and IV AD (4/53: **331**+**597**, **359**, **490**, **554**). The biliteral form occurs with the full ΥΙΕ in **371** (III). In **497** (III) both biliteral and triliteral forms (ΥΙC, ΥΙΥ, ΥΙΝ) occur.
No MSS in Group C contain this *nomen sacrum*.

In Group D this *nomen sacrum* appears in MSS from III (3/24: **660**, **672**, **696**) and IV AD (6/26: **648**, **654-1**, **678**, **689**+**690**, **694-1**), but not from II AD. In **660** (III) triliteral forms occur as well as full forms, and in **654-1** (IV) biliteral forms occur with the full form, while in **677** (IV) biliteral and triliteral forms occur along with the full form. In

672 (III) biliteral forms occur along with triliteral. The full form occurs with biliteral forms and the uncommon forms YIC and YIN in **678** (IV).
There are no instances of this *nomen sacrum* in Groups E-J.

Thus, the MSS with significant irregularity in use of YIOC are from Group B (**371**, **497**) and Group D (**654-1**, **660**, **672**, **677**, **678**) – seven MSS. The reduced list without those MSS showing inconsistency of usage is **497**, **672**, **677** and **678** – four MSS.

i. *ICPAHΛ*
Common forms of the *nomen sacrum* ICPAHΛ were IHΛ, ICΛ and ICHΛ; other forms will be noted below. As usual, contractions are rarely carried out with complete consistency throughout a complete MS.

In Group A no Jewish MSS contain this *nomen sacrum*. It does occur in Christian MSS from II (2/16: **52**, **118**), III (6/51: **42**, **263**+**605**, **284**+**636**, [**303**], **317-1**, **318**) and IV AD (16/91: **15-1**, **19-1**, **30-1**, **31-1**, **32**, **34-1**, **48-2**, [**48**], [**61**], **65**, **67**, **68**, **133**, **211-2**, **282**, **316**). However, in **303** (III) the form I[HΛ] occurs as well as the full form. In **317-1** (III) the forms IΛ, HΛ and IHΛ occur, and in **65** (IV) the forms IHΛ and IΛ appear. In **19-1** (IV) the forms IHΛ and ICHΛ are used, as they are in **15-1** (IV). In **32** IHΛ lacks a *makron* once.

In Group B this *nomen sacrum* appears in MSS from II (1/10: **406**), III (1/53: **559-2**) and IV AD (2/53: **331**+**597**, **479**). In **473-1** (III) the uncommon form ICCTPAHΛ occurs (although the first two letters are slightly uncertain because the papyrus is damaged, and the doubling might simply have occurred by gemination), while in **331** the form ICPΛ occurs along with IHΛ.

In Group C this *nomen sacrum* occurs in MSS from III (3/12: **599**, **605**, **611**) and IV AD (3/22: **600**, **600-1 606**). In **599** (III) the form ICHΛ occurs with IHΛ, and in **605** (III) and **600-1** (IV) ICΛ occurs. In **611** (III) the form ICPΛ occurs along with ICPHΛ.

In Group D this *nomen sacrum* occurs only in **677** (IV: 1/26) as ICΛ, IHΛ and ICPΛ. It also contains ICΛ˙PAHΛITIΔOC, the latter resulting from the copyist writing the

common *nomen sacrum* with a high point to cancel the final Λ before continuing with the correct adjectival form (without deleting the Λ). In fact, the superior *makron* is written above the first three letters, but not above the remaining letters of the whole word, probably showing the copyist's initial intention to write the regular *nomen sacrum*, but it was then extended into the adjectival form. He apparently realised that the *nomen sacrum* was not applicable in this case.
There are no instances of this *nomen sacrum* in Groups E-H or Group J.

In Group F the uncommon full form ICTPAHΛ occurs (with *makron*) in **1002** (IV: 1/42).
In Group I **1156** (III: 1/22) contains this *nomen sacrum*.

Therefore, the MSS with significant irregularity in use of ICPAHΛ are from Group A (**15-1**, **19-1**, **32**, **65**, **303**, **317-1**), Group B (**331**, **473-1**), Group C (**599**, **611**), Group D (**677**) and Group F (**1002**) – a total of twelve MSS. The reduced list comprises **32**, **65**, **317-1**, **331**, **599**, **611**, **677** and **1002** – eight MSS.

j. *OYPANOC*
Common forms of this *nomen sacrum* were OYNOC, OYNON, OYNOY, OYNOIC, and OYNOYC, and others will be noted below. It may be that this word came to qualify as a *nomen sacrum*, since it was sometimes used as a euphemism for 'God' in the NT (e.g. Matt 4:17; Luke 15:18).

In Group A MSS from III (3/51: **92**, [**254**], **275**?) and IV AD (3/91: **15-1**, **30-1**, **195**) have instances of this *nomen sacrum*, but no Christian MSS from II AD or any Jewish MSS contain it.
In Group B it appears in MSS from III (2/53: [**473-1**], **559-2**) and IV AD (2/53: [**542**], **561**). The full form occurs with the *nomen sacrum* in **561** (IV).
In Group C it appears in [**607**+**608**] (IV: 2/22), but not in MSS from II or III AD.
This *nomen sacrum* occurs in Group D only in MSS from IV AD (4/26: **627**, **648**, **654-1**, **678**). Both full form and *nomina sacra* appear in **654-1** (IV). The forms OYN (accusative singular) and OYPN (genitive plural) occur along with more usual forms and some full forms in **678** (IV).
There are no MSS with this *nomen sacrum* in Groups E or G-J.

In Group F it occurs in **863** (IV) and **966-1** (IV).

Thus, the MSS with significant irregularity in use of OYPANOC are from Group B (**561**) and Group D (**654-1**, **678**). The reduced list contains **678** alone.

k. *CѠTHP*

Nomina sacra for CѠTHP occur rarely. In Group A this *nomen sacrum* occurs in two MSS from IV (**15-1**, **30-1**), with the forms CѠP, CTC, CTI in **15-1**. No MSS in Group B contain this *nomen sacrum*. Only **585** (IV) in Group C has it (CѠP). There are no instances of this *nomen sacrum* in Groups D or E, but in Group F **998** (IV) has CPC. There are no instances in Groups G or H, while in Group I only two MSS from IV contain it: the unusual CѠPC in **1093** and CѠP in **1159**. No instances occur in Group J.

Thus, the only MS with significant irregularity in use of CѠTHP is from Group I (**1093**), which also serves as the only member of the reduced list.

l. *ΔAYIΔ*

Common forms of this *nomen sacrum* were ΔAΔ and ΔΔ, often both within the one MS, and other forms will be noted below. There seems to be no reason that the name of David is dealt with in this way, while Abraham, Moses, or Mary etc. are not. Perhaps the practice of thus abbreviating David's name began because he ranked as an ancestor of Jesus; yet Mary's name is not dealt with in a similar way.[60] It may simply be that the frequency of David's name, either in the OT and NT, or in those parts of them that were in common use in early Christian circles, served to add it to the list of common abbreviations in the form of *nomina sacra*, and that brevity formed the major motive for the creation of these striking forms of abbreviation. Perhaps its occurrence in the title 'Son of David' may also have been a factor, forging a link with others such as KYPIOC, IHCOYC and XPICTOC.

[60] It may be that only male persons were deemed appropriate for such *nomina sacra*, or perhaps Mary was not given the prominence that she was later on from IV or V AD. Or, it may be due to there having been another 'Mary' with whom the name might be confused.

In Group A there are no Jewish MSS with this *nomen sacrum*. Only Christian MSS from IV AD (5/91: **15-1**, **30-1**, **67**, **68**, **133**) contain instances of it. In **65** (IV) the full form is crossed out and written as the contracted *nomen sacrum* above the line. I have not been able to verify if the correction is written in the same hand as the previous text but, even if not, it provokes the question as to why anyone would do this. Did the copyist (or the corrector) feel that it had been written 'wrongly' in the first place, so that it stood in need of 'correction'? If so, then either the copyist or the corrector viewed the *nomina sacra* as a system to be followed, whether the full form was accurate or not. On the other hand, perhaps the exemplar contained the *nomen sacrum* and the copyist gave it its full form, realised his 'mistake,' and changed it back since he wished to reproduce it exactly. This would show a level of professionalism in wishing to copy the exemplar.

Group B contains MSS with this *nomen sacrum* from III (1/53: [**473-1**]) and IV AD (2/53: **331**, **490**). In **490** ΔΑΥΔ occurs, perhaps simply a mistaken full form ΔΑΥΙΔ (with the I omitted), since there is no *makron*. This possibility is confirmed by the presence of a following apostrophe (cf. Ch. 6, §6.6), showing that the copyist saw it as a complete proper noun, rather than one of the *nomina sacra* (which never have a following apostrophe).

There are no instances of this *nomen sacrum* in MSS in Groups C or E-J.

The only instance in Group D is in **689**+**690** (IV: 2/26).

Thus, there are no MSS with any significant irregularity in their use of ΔΑΥΙΔ.

m. *MHTHP*

Common forms of this *nomen sacrum* were MP, MHP, MPC, and MPA. Other forms will be noted below.

In Group A this *nomen sacrum* occurs in MSS from II (1/16: **118**) and IV AD (3/91: **15-1**, **30-1**, **133**), although, as with IHCOYC, we can be confident that it must have occurred also in III AD. In **118** the forms MP and MPC both appear.

In Group B only **462-2** (III: 1/52) and **331** (IV: 1/53) have this *nomen sacrum*.

There are no instances of this *nomen sacrum* in Group C.

In Group D it occurs in MSS from IV AD (4/26: **627**, **678**, **689**+**690**), but not in MSS from II or III AD, although again it may be presumed that it existed earlier than IV.

The full form occurs in **678** along with *nomina sacra*. In **627** (IV) the form [MH]PN for genitive plural occurs (as well as MHP).
There are no instances in Groups E-J.
The only MSS with possibly significant irregularity in use of MHTHP are from Group D (**627**, **678**), and the reduced list comprises **627** alone due to the unusual form.

n. *IEPOYCAΛHM*
A common form of this *nomen sacrum* was IΛHM, but other forms are noted below.

In Group A there are no instances of this *nomen sacrum* in Jewish MSS; but there are instances in Christian MSS from II (2/16: **76**, **118**), III (4/51: **75**, **284**+**636**, **284**, **317-1**) and IV AD (4/91: **15-1**, **30-1**, **133**, **305**). The full form occurs along with the *nomen sacrum* in **75** (III). In **284** (III) the unusual form IHΛHM occurs along with IΛHM, but contracted forms only occur from Zechariah 9 onwards, the reason for which is not apparent. In **15-1** (IV) the form IEΛM occurs along with the more common IΛHM.
In Group B this *nomen sacrum* occurs in MSS from II (1/10: **406**), III (1/53: **505-1**) and IV AD (2/53: **479**, **482**). In **501-1** (III) the form IΛΛHM appears to have been written, but the first two letters are uncertain.
In Group C only **579** (IV: 1/22) has instances of this *nomen sacrum*, where the uncommon form IHM occurs.
In Group D only **678** (IV: 1/26) contains instances of this *nomen sacrum*, with the following forms: IYΛM, IEΛM, IYCΛM and IHM.
No instances of this *nomen sacrum* occur in Groups E-J.
It is significant to note that all of these forms presuppose the Hebrew spelling rather than the Graecised form IEPOCOΛYMA, perhaps due to a felt link with the former on the part of those who began to use this *nomen sacrum*.

Therefore, MSS with significant irregularity in use of IEPOYCAΛHM are from Group A (**15-1**, **75**, **284**), Group B (**501-1**?), Group C (**579**) and Group D (**678**) – six MSS. The reduced list comprises **284**, **501-1**?, **579** and **678** – four MSS.

o. *CTAYPOC, CTAYPOѠ*

Forms of these *nomina sacra* were quite varied, using either an abbreviated form of the noun or verb, or perhaps a form of the staurogram such as ⳩ (although this latter may not count as a genuine *nomen sacrum* since it is not an abbreviation in letters with a superior *makron*). The use of the staurogram has been touched on above (see §7.4), but it is relevant to deal with it in greater detail here because it seems to alternate with forms of the *nomen sacrum* for *CTAYPOC* and *CTAYPOѠ*. Unusual forms will be noted below.[61]

The only MS in Group A with this *nomen sacrum* is **15-1**, where the full form occurs as well.

In Group B it occurs in MSS from II (2/10: **406**, **426**) and III AD (4/53: **371**, **473-1**, **497**, **565**), and as C⳩Y in **397** IV AD (1/53). There is often a mixture of full forms and forms that use the staurogram, listed as follows. In **406** (II) the forms CTPON and C⳩ON occur along with C⳩ѠΘHNAI and ECTPѠCAN. In **426** (II) the forms C⳩OY, [C]⳩Ѡ, C⳩ON, C⳩Ѡ[CѠ], C⳩ATE, C⳩ΘH, EC⳩AN, EC⳩ΘH occur. In **371** (III) the forms C⳩N and C⳩NA[I] appear; in **462-2** [EC⳩A]N occurs, and in **473-1** (III) the form is [EC⳩ѠCATE]. The forms in **497** (III) are CTPOC, CTPOY, CTOY, CTPѠ, CTPN, ANACTPEC, CYNECTPAI, ECTPAI, ECTAN, ECTPAN, ECTN, ECTP, while the very idiosyncratic form in **565** (III) is ECTPѠ (= ECTAYPѠΘH).

There are no instances of this *nomen sacrum* in Groups C, E, G, H and J.

In Group D **648** (IV) has a single example, C⳩OY (genitive singular), and **690** includes the word EC⳩ѠMENON with superior *makron* over the staurogram.

In Group F only three MSS from IV have instances: CѠΘENTOC in **864**, CTAY⳩ (with cross-stroke slightly oblique) in **949-1**, and CPC in **998**. **918** contains some instances of the staurogram by itself.

[61] See Hurtado, *Earliest Christian Artifacts*, 135-54 for a useful discussion of the origin, function, meaning and significance of the staurogram. My focus here is on the forms and what they may imply about the professionalism of the copyists.

In Group I **1152** (III) has the idiosyncratic form ECTPNOC (= ECTAYPѠMENOC).[62]

Thus, the MSS with significant irregularity in their use of the *nomina sacra* for the noun and verb are from Group A (**15-1**), Group B (**406**, **497**, **565**), Group D (**648**) and Group I (**1152**) – a total of six MSS. However, it is difficult to know if any of these were idiosyncratic in view of the great variety of forms that existed for this particular *nomen sacrum*; but we can reduce the list of notable MSS to **565** and **1152**, due to their very uncommon usages.

p. *Other abbreviations*

A number of other abbreviations occur, which can be compared more usefully with the *nomina sacra* than with other more mundane abbreviations discussed above in §7.8. These will be noted here along with any significance they may have for our investigation.

In Group A ΘPA occurs as well as the full form ΘYΓATEPA in **62** (III).

In Group B [EINH] in **131** (IV) is probably to be restored for EIPHNH in view of the surviving *makron*, and thus an idiosyncratic *nomen sacrum*. The form K(OC)MOY occurs in **505** (IV), and ΔY(NA)MI appears for the dative singular noun in **548**+**557** (III).

Groups C, E-H, and J have no such cases.

In Group D **678** has a superior makron over A and Ѡ in TO A KAI TO Ѡ for a divine title like a *nomen sacrum*.

In Group I the unusual K(OC)MON appears in **1126-6** (IV).

These probably simply show that abbreviating of words was done by some writers, of which a few cases remain in extant MSS, all in III-IV. That is, the use of an abbreviation does not necessarily confer on it the status of a *nomen sacrum*. It does not bear strongly on the issue of scribal professionalism, but probably shows that various abbreviations were employed at different times. Since only some of them became common later on, it appears that the practice of abbreviating words was largely confined to the range of common *nomina sacra* and the symbolic *staurogram*.

[62] For a short note on this form see *Repertorium*, II, 518-19, n. 1.

As a final note in this section on abbreviations, the following is a list of those MSS that include *nomina sacra* but omit the superior *makron*, at least occasionally: ΘΕΟC (**548**, **626**, **648**, **660**, **955**, **1036**), ΚΥΡΙΟC (**660**, **664**, **1142-5**), ΙΗCΟΥC (**948-3**), ΠΝΕΥΜΑ (**660**), ΠΑΤΗΡ (**1066-5**), ΑΝΘΡѠΠΟC (**264**, **698-2**) and ΙCΡΑΗΛ (**32**). There is also one case where the full form ΙCΤΡΑΗΛ (with added T) actually has a *makron* (**1002**). This betrays either carelessness on the part of the writer, or the exemplar having the 'error,' or perhaps a lack of concern to be consistent on the part of the copyist. It should be observed that **660** appears three times above, since it lacks the *makron* for at least one case of each of three *nomina sacra*; but since the handwriting is of good scribal quality, this shows that the use of *nomina sacra* was quite flexible, even to the extent of occasionally missing the superior *makron* as a sure mark of their presence.

q. *Implications*

With regard to the use of the *nomina sacra* in the MSS in my database, it may be observed that this manner of abbreviation was never followed with total consistency, either in form or in usage. Biliteral, triliteral, and longer forms of some *nomina sacra* occur in single MSS, and full forms of the words occur along with the abbreviated *nomina sacra* in a large number of MSS as well. A small number of MSS contain cognate forms of the *nomina sacra*, such as adjectives, which contain the abbreviations carried over (sometimes with the superior *makron* over the contracted part of the word only). However, a central core of words early became commonly abbreviated, others less commonly so. That central core consisted of words used with greater frequency, and perhaps also seen as more important, namely the divine names (ΘΕΟC, ΙΗCΟΥC, ΚΥΡΙΟC, ΠΝΕΥΜΑ, ΧΡΙCΤΟC) and words associated with 'cross' (CΤΑΥΡΟC). Less frequent, probably showing that they were less central, were other associated words (ΑΝΘΡѠΠΟC, ΔΑΥΙΔ, ΙΕΡΟΥCΑΛΗΜ, ΙCΡΑΗΛ, ΜΗΤΗΡ, ΟΥΡΑΝΟC, ΠΑΤΗΡ, CѠΤΗΡ, ΥΙΟC). Far less commonly, other words (e.g. ΕΙΡΗΝΗ, ΚΟCΜΟC) were also abbreviated by association, but never formed a part of the central core or the more peripheral group, and perhaps never had the status of *nomina sacra* in the minds of those who used them.

At the end of each subsection above we have noted those MSS which contain *nomina sacra* along with their full forms, or a mixture of forms (biliteral and triliteral) or idiosyncratic ones. Then a more restricted list was provided, omitting those MSS that include only *nomina sacra* and full forms in the one MS. What implications do these have with regard to the professionalism with which a MS was produced? The recent presentation of results for *Codex Sinaiticus* (**15-1**, Pl. 25) by Jongkind is useful here, since this MS is very extensive and includes material by a small number of different copyists, all of whom were professional scribes and copied to a calligraphic standard.[63]

First, it should be observed that, even in this highly professionally produced MS, each of the *nomina sacra* occurs in a variety of forms.[64] It is true that there is a standard range of forms for those central items, almost without variation in being biliteral or triliteral or whatever is the appropriate number of letters. So, for example, there is almost no occurrence of triliteral forms for IHCOYC or KYPIOC. Further, the fact that the words in the core list were inserted almost universally must also be a reflection of the high level of scribal professionalism involved. However, there is some variation in the *nomina sacra* for the other terms.

Second, Jongkind's study shows that in this MS the *nomina sacra* are used for a number of words (ΘEOC, IHCOYC, KYPIOC, ΠNEYMA, ΠNEYMATIKOC, XPICTOC) in a very high proportion of cases (98-100%), but the other *nomina sacra* occur in much lower proportions.[65] This reinforces the suggestion that those words mentioned first were the central words to which this convention was applied; but it also shows that there could be a wide range of inconsistency in usage in the case of the others. If even a very professional MS, such as *Codex Sinaiticus*, can be written with a mixture of *nomina sacra* and their full forms in those *nomina sacra* not listed just above, this criterion cannot be used to distinguish non-professional MSS in the case of those words. Thus, the more restricted second list is appropriate for those words, rather than the initial list in each subsection.

[63] See Jongkind, *Scribal Habits of Codex Sinaiticus*, 61-84 on the *nomina sacra* in that MS.
[64] Jongkind, ibid., 64-67.
[65] Jongkind, ibid., 67-68.

If a professionally produced MS like *Codex Sinaiticus* can achieve almost complete uniformity in including the *nomina sacra* of the central items listed above, it might be expected that other professional MSS would do the same. Hence, those MSS which do not attain that kind of consistency of inclusion should at least be considered as possibly copied by a non-professional writer. For the central items in our list, then, variation in the use of *nomina sacra* and their *plene* forms can be seen as a possible indicator of an untrained writer being responsible for the MS; so the first list which includes this criterion has some credibility in the case of the central items.

Consistency in abbreviation does not establish that the copyist was a professional writer. In contrast, idiosyncratic abbreviations *may* be a criterion to assign a MS to a non-professional writer; but even here the list should be treated as suggestive only, and in need of comparison with other *nomina sacra* in the same MS, as well as other features examined in this study. In the Conclusion to this chapter (§7.11) we will compare the summary data appearing below (Fig. 7.12), which is gathered from those lists at the end of each subsection above, with the list of MSS provided at the end of Ch. 6 (Fig. 6.12).

In line with the second point made above, Fig. 7.12 takes into account the fuller lists of MSS at the end of §7.10a-e above together with the reduced lists in §7.10f-o. There are no MSS in Groups E or J.

Figure 7.12 **MSS with significant variation or idiosyncrasies of form in *nomina sacra***

Group A	**4**, **7**, **8**, **19-1**, **32**, **43**, **52**, **65**, **66**, **67**, **75**, **109**, **118**, **133**, **148**, **170-1**, **181**, **239**, **263**, **264**, **284**, **303**, **307-1**, **315** (*m.*2), **317-1**, **318**, **319**
Group B	**331+597**, **345**, **353**, **356**, **359**, **360**, **371**, **396**, **406**, **426**, **436**, **459**, **479**, **485**, **497**, **501-1**?, **548+557**, **554**, **555**, **565**
Group C	**569**, **579**, **584-3**, **586**, **587**, **587-1**, **594**, **597**, **599**, **604-1**, **605**, **606**, **611**, **611-1**
Group D	**626**, **627**, **648**, **654-1**, **660**, **664**, **672**, **677**, **678**, **693**, **694**, **698-2**
Group F	**722**, **862+863+864**, **879**, **891**, **892-7**, **918-1**, **948-3**, **955**, **998**, **1002**, **1035**, **1036**
Group G	**1064**, **1066-5**, **1067-1**, **1071**
Group H	**1075**
Group I	**1091**, **1093**, **1142-5**, **1149-2**, **1151**, **1152**

We are now in a position to consider whether the use of *nomina sacra* (including the staurogram) in a MS is a clear sign that the copyist was a Christian by conviction.[66] At first sight, this appears to be a reasonable conclusion, since the *nomina sacra* were only ever used in Christian MSS, and were never used in Jewish or any other MSS. Thus, the 'system' might be seen as something with which only Christian writers would have been familiar. However, it is also entirely to be expected that, once a *nomen sacrum* had been used at a particular point in a copy of a text, subsequent copyists of that MS would simply imitate what was on their exemplar. In this way, the haphazard use of *nomina sacra* could simply have grown as copies continued to be made and the custom of using such *nomina sacra* grew in popularity and consistency, with only minimal or no input from the person having the copy made or the copyist himself. Charlesworth concludes that there was a decision made to standardise the forms for the core group of *nomina sacra*, and that this was communicated among a number of early Christian communities. Then a second round of standardisation took place for less central items.[67] Yet, the fact that MSS were copied from exemplars and then became exemplars in turn – and so on in a sequence – may cause that suggestion to be re-evaluated, since the possibility that scribes reproduced their exemplar with its *nomina sacra*, rather than creating *nomina sacra* as they went, means that it is not easy to determine the role of each copyist. The copyist's task was to reproduce what he was presented with, and if it contained *nomina sacra* they would be copied – and perhaps on occasion their use extended. This would go some way to explain the lack of uniformity in their use (and perhaps also in their form) in Christian MSS from II to IV AD.

An instructive parallel to the copying of *nomina sacra* in Christian MSS is the reproduction of certain magical papyri, some of which are in my database, since they often contain a range of 'extra-textual' aspects. That is, apart from the words of the text to be copied, there are also other symbols, signs and marks, which presumably a copyist would have been expected to reproduce. For example, the two extensive magical papyri, **1071** (*P.Lugd.Bat. II W*) and **1079** (*P.Lugd.Bat. II V*), contain a host of such features, including superior *makra*, symbols, signs (*diplê* etc.), letters repeated

[66] Royse, *Scriba Habits*, 28-29 offers a brief but useful review of opinions about the faith and professionalism of the copyists of NT MSS. He also discusses (pp. 499-503) the scribe of **426**, where the occurrence of *nomina sacra* and the staurogram are taken to indicate that he was a Christian.
[67] Charlesworth, 'Consensus standardization,' 30-32.

in sequence, as well as stylised layout not in fully written lines of text, and even diagrams. What was a copyist to do in the face of such variety? Whether a professional scribe or not, surely he would feel obligated to reproduce this text as it was presented to him, including the diverse 'extra-textual' elements. In a similar way, a copyist presented with a text which included a selection of *nomina sacra* would surely have felt obligated to include them in the copy which he was making. He may even have felt that he had the freedom to increase their number by adding some, although we can be less certain about this. This example serves to reinforce the point made above that, as far as we know, copyists in antiquity, whether with greater or lesser amounts of skill, endeavoured to copy their exemplar; in the case of Christian MSS this included the use of a number of *nomina sacra*.

Further, it is relevant to observe a similar phenomenon, where scribes were commissioned to produce documents of various kinds and may not have been familiar with the exact form required. For this reason, they were sometimes given templates from which to compose letters, contracts and the like.[68] Thus, the general shape of the document was provided, so that they could produce it in the required format. In an analogous way, it would seem possible that a writer, whether a professional scribe or a non-professional writer, could be given a 'template' by the person wishing the copy to be made in the form of a list of terms which should be written as *nomina sacra*. So some writers may have had such a list provided in the early period when the *nomina sacra* were being established; and again the lack of uniformity in the abbreviation as well as in usage could be explained by the fact that the lettering was never entirely fixed and the writers (whether professional or not) put them in when they could (although by no means with complete consistency). This suggestion, if valid, would rule out the apparently obvious inference that the copyist of a MS must have been a Christian by conviction if he made use of *nomina sacra*.

7.11 **Conclusion**

In this chapter we have examined the aspects of the MSS on my database that deal with writing the text. We have followed the procedure of Chs 4-6, except that the list of MSS in Fig. 6.12 has been used as a basis for comparison, taking the non-

[68] Bucking, 'On the training of documentary scribes,' 234-38.

professional status of the copyists of MSS in Categories 3 / 3^{+} as largely confirmed. Similarly, the material in Ch. 4 (from Fig. 4.3 to Fig. 4.8) has been used as the basis for noting which MSS were written by professional scribes (Categories 2^{-} – 1). The presence of a number of the features that were examined, such as line-fillers and critical signs, has confirmed that a professional copyist produced a number of those MSS. Indeed, we have noted that the use of some of these features provides evidence of an informal 'tradition' of signs or habits that must have been current in scribal circles and spilled over into Christian MSS as well. However, the absence of those features does not prove that a non-professional copyist was at work, since almost all of the features examined were never used consistently.

Thus, the levels of professionalism assigned to those MSS listed in §4.4 (see Fig. 4.3 – Fig. 4.8) have been confirmed *in general*, where data is available, although a number of the other features examined have yielded little by way of confirmation. This is due to the small number of MSS involved in some sections of this chapter, and also results from the fact that even professional scribes could, at times, include 'errors' or a degree of variety which we might have expected from non-professional writers. A list of MSS that are likely to have been copied by non-professional writers on the basis of some aspects of their use of *nomina sacra* is given in Fig. 7.12 above; and this was compared with Fig. 6.12 to see if the non-professional status of any MSS is confirmed. The resulting ***final list of those MSS*** in my database ***deemed to have been written by non-professional writers is provided in Fig. 7.13 below***, with their code-numbers in red type (previously confirmed, some re-confirmed) or blue type (newly confirmed in this chapter). A complete list of all 516 MSS in their assigned Categories of professionalism is given in Fig. S.B 3, a separate fold-out sheet in the pocket at the back of this thesis (Vol. 1).

Figure 7.13 **MSS in handwriting quality Categories 3 / 3^{+} and Category 2^{-} (consistent with features examined in Ch. 7)**

	3	*3+*	*2-*
		Group A	
II AD			**118**
III			**4**, **7**, **30**, **44** (Pl. 20), **62**, **77-1**, **81-1**, **263**, **269**, **273-2**, **286**
IV	**87-2**, **136**, **205**, **220**, **239**, **255**	**132-1**, **134-1** (Pl. 33), **246-1**, **308** (Pl. 34)	**3**, **90**, **133**, **138**, **143**, **170-1**, **195**, **239-2**, **263-1**
		Group B	
II AD			**559-1** (Pl. 8)
III	**347** (Pl. 24), **548**+**557**, **559**	**441**, **522**, **537**, **558**	**380**, **430-1**, **444**, **459**, **461-1**, **467-1**, **488**, **521-1**, **536**, **547**
IV	**345**, **359** (Pl. 36), **482**, **490**, **539**, **554**	**378**, **511**, **562**	**342-1**, **451**, **538-1**
		Group C	
II AD			**581**, **592**, **594**, **598-1** (Pl. 9)
III	**569**		**587-1**, **589**, **593**, **611**
IV			**578**, **579**, **580**, **584-1** (Pl. 31), **584-2** (Pl. 32), **584-3**, **585**, **604**
		Group D	
II AD		**657**	
III		**672**, **682**	**624**, **695**, **700**
IV	**667**	**658-1**, **677**, **693**	**626**, **648**, **648-1**, **654-1**, **661**, **698-2**
		Group E	
IV	**715-2**	**704-1**, **710-1**	
		Group F	
III	**733-2**, **968**, **1035**	**847**	**722** (Pl. 19), **1036**, **1037-5**
IV	**728**, **739**, **849**, **892-7**, **892-8**, **893**, **902**, **914**, **918**, **918-3**, **948**, **949-1**, **953**, **967**, **971**, **996-1 J**, **1050**	**844**, **862**, **863**, **864**, **918-1**, **918-4**, **949-2**, **955**	**895**, **921**, **948-3**, **951**, **1034-1**
		Group G	
III	**1065-1** (Pl. 22)		**1066-6**
IV		**1067**	
		Group H	
II AD	**1079-2** (Pl. 11)		
III			**1077**, **1081**
IV	**1073**, **1078**, **1080**		**1080-1**
		Group I	
III		**1154** (Pl. 21), **1178**	**1141-1**, **1146-3**
IV	**1091**	**1093**, **1126-6**, **1148**, **1150-4**	**1131**, **1147**, **1188-1**

At this point it should be observed that a small number of MSS assigned to Categories 3 / 3^{+} in Fig. 7.13 still remain to be confirmed as having been copied by a non-professional writer, and hence still appear in black type. There are two reasons for this. *First*, as noted earlier, many of the features examined here occur only in a limited number of MSS, and not always with a high degree of consistency. *Second*, fragmentary MSS may not exhibit irregularities or inconsistencies in the extant portion. For example, **1065-1** is clearly written in a non-professional hand (see Pl. 22) and yet, because it is broken on all sides and does not have any existing margins or

line-fillers, it has not featured in many of the sections in this chapter (or in some of the previous ones). It has no extra-textual elements such as decorations or the like, no punctuation, and little by way of readers' aids. Thus, it lacks evidence that might confirm, by an examination of the level of irregularity in these aspects, a lack of professionalism in its production. Further, it contains only one *nomen sacrum* and thus affords no opportunity to observe any idiosyncrasies. Hence, we have retained **378**, **522**, **562**, **704-1**, **710-1**, **1065-1** and **1154** in black type in Fig. 7.13, since their handwriting is a good indicator of a non-professional copyist and it is only by chance that other factors have not confirmed their initial inclusion. I have also rechecked my initial estimate of their handwriting status against plates of the MSS, and confirmed to my satisfaction that they do indeed belong to those Categories 3 / 3^{+}. For the sake of completeness, I still include in Fig. 7.13 the MSS assigned to Category 2^{-}, the quality of whose handwriting is close to that in Categories 3 / 3^{+}, but they are still in black type.

In the Summation of Part B which follows, the consequences of the list of MSS in Fig. 7.13 will be examined, including the issue of the MSS assigned to Category 2^{-}. The General Conclusion which follows as Part C, Ch. 8, will discuss further ramifications, especially in relation to other points raised in Chs 4-7, in order to address the hypothesis which gave rise to this study.

SUMMATION OF PART B

In order to assess the professionalism of the copyists responsible for the reproduction of the Christian MSS on my database, this study has focussed on a number of characteristics of those MSS. We have examined general features, physical form and handwriting quality (Ch. 4), page layout (Ch. 5), aids for readers (Ch. 6) and matters related to writing the text (Ch. 7). As a result, Fig. 7.13 at the end of the previous chapter presented a categorised list of MSS copied by non-professional writers (Categories 3 / 3^{+}), together with those which were copied by professional scribes but with less care (Category 2^{-}) than scribes applied whose MSS have been allocated to Categories 2 / 2^{+} / 1^{-} / 1 – although the dividing line between MSS in Category 3^{+} and Category 2^{-} might be difficult to confirm. A list of all MSS grouped according to their Categories is provided in Figure S.B 3 in the pocket at the back of this thesis (Vol. 1). For the present, we leave aside the MSS in Category 2^{-}, and concentrate on those assigned to Categories 3 / 3^{+}. The focus of this Summation is on the implications of that list of MSS copied by non-professional writers (rather than professional scribes) in relation to two issues – the overall proportion of MSS copied by non-professional writers, *and* whether there are any observable trends in their occurrence over the period from II to IV AD. MSS written from II BC to I AD are omitted from the discussion here, since they are all Jewish. We will discuss these issues in relation to the MSS listed in Fig. 7.13 under the headings of the content Groups.

In Group A (OT texts) there are no MSS from II AD or III AD with handwriting Categories 3 or 3^{+} assigned, so that ***only in MSS with start-dates in IV AD do such non-professional hands begin to appear***. If we look more closely at the dates assigned to the ten MSS in that group, two belong to early IV AD (**205**, **239**), four are from IV (**87-2**, **220**, **246-1**, **308** Pl. 34), and four from IV–V AD (**132-1**, **134-1** Pl. 33, **136**) or IV–VI AD (**255**). The copying of MSS by non-professional writers in Group A seems to have begun in IV AD, and did not occur in a high proportion of MSS overall (10 out of 91 with start-dates in IV AD).

In Group B (NT texts) there are again no MSS from II AD in these Categories, but eight MSS (out of fifty-three) from III AD and nine (out of fifty-three) from IV AD. More specifically, two MSS are assigned to III AD (**347** Pl. 24, **522**), three to III/IV AD (**441**, **537**, **558**), three to III–IV AD (**548**, **557**, **559**), seven to IV AD (**359** Pl. 36, **482**, **490**, **539**, **378**, **511**, **562**), one to late IV AD (**345**) and one to IV/V AD (**554**). Again, ***no extant MSS in this Group from II AD were copied by non-professional writers***; and there is only a slight increase in the number of MSS from III AD (eight MSS) to IV AD (nine MSS) in the following two centuries.

In Group C ('Apocryphal' texts) no MS comes from II AD. **569** (III–IV AD) is the only such MS out of twelve with a start-date in III AD. No MS in this Group comes from IV AD, and no trends are traceable here due to the small number of MSS involved.

In Group D (Patristic texts), which has seven MSS in Categories 3 / 3^+, only **657** comes from II/III AD (one of four with a start-date in II AD), and two MSS (**672**, **682**) of twenty-four have start-dates in III AD. **667** and **677** come from IV AD, **658-1** from IV/V AD and **693** from IV–V AD; thus only four out of twenty-six in all have start-dates in IV AD. Again, only one MS comes from II AD, and there is only a slight rise in the proportion of the MSS copied by non-professional writers for such MSS from III to IV AD.

In Group E (Hagiographic texts) one MS comes from early IV AD (**710-1**), and the other two are from IV AD (**704-1**, **715-2**). Thus, here three out of four are not professionally copied, perhaps evidence that hagiographic texts were not given the same priority as others by those who wished them copied; but all are from IV AD. However, the total number of MSS here is small, and any inferences must be tentative.

In Group F (Liturgical and private prayers) there are many more MSS classed in Categories 3 / 3^+. Of the twenty MSS in Category 3, one comes from III–IV AD (**733-2**), and two from III/IV AD (**968**, **1035**); more numerous are the MSS from IV AD (**728**, **739**, **914**, **953**, **971**), IV/V AD (**849**, **892-8**, **918-3**, **996-1 J**), IV–early V AD (**949-1**), IV–V AD (**892-7**, **893**, **948**, **967**, **1050**), and IV–VI AD (**902**, **918**). Of the

nine MSS in Category 3^+, there are MSS from III/IV AD (**847**), early IV AD (**862**, **863, 864**, **949-2**), first half of IV AD (**844**), IV AD (**918-4**), IV/V AD (**918-1**), and IV–V AD (**955**). When we note that Group F has a total of fifty-eight MSS in my database, twenty-nine of which are represented here in Categories 3 / 3^+, we may conclude that ***in comparison with all other Groups, MSS of that type were copied much more often by non-professional writers. Even here, however, none come from II AD, only four MSS have start-dates in III AD, and the other twenty-five come from IV AD. Thus, there is a perceptible trend toward the greater occurrence of such MSS in IV AD***. If we compare the proportions of MSS in Group F, there are none with start-dates in II AD, 29% (four of fourteen) of the total for III AD and 61% (twenty-five of forty-one) of those in IV AD. Thus, the data suggests that there was a notable increase in such MSS being copied by non-professional writers in IV AD, *and* that *overall* this Group of MSS was copied by such writers much more often than MSS in other Groups.

Of the two MSS in Categories 3 / 3^+ in Group G (Gnostic and Manichaean texts), **1065-1** (Pl. 22; one of five) is from III AD and **1067** (one of nine) is from IV AD. We can draw no conclusions about trends due to the small number of MSS involved.

In Group H (Magical texts) **1079-2** (Pl. 11; one of two from II AD) comes from II/III AD. No MSS (of two) come from III AD. **1080** is from the first half of IV AD, and **1073** and **1078** from IV–V AD (three of seven with start-dates in IV AD). As with Group G, no definite conclusions may be drawn here.

In Group I **1154** (Pl. 21) comes from late III AD, **1178** from III–IV AD, **1148** from early IV AD, **1126-6**, **1150-4** from IV AD, **1093** from late IV AD, and **1091** from IV–V AD. Thus, only two MSS of twenty-one with start-dates in III AD and five MSS of twenty with start-dates in IV AD are on this list. The only observable trend is that more MSS appear to have been copied by non-professionals from III–IV AD; but as this is a random collection of unidentified Christian texts, little can be concluded from this.

No results are possible for Group J.

In Fig. S.B 1 below the above results are now given in terms of the number of Christian MSS in century start-dates and content Groups, first with the number of MSS and (after the slash) the total number of MSS for that set; and then this proportion as a percentage correct to a whole number. A dash indicates that no information is available. Tallies here do not include Jewish MSS.

Figure S.B 1 **Numbers of MSS in handwriting quality Categories 3 / 3^{+}**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*
II AD	0/16 0%	0/10 0%	0/5 0%	1/4 25%	-	-	-	1/2 50%	0/4 0%	-
III AD	0/51 0%	8/53 15%	1/12 8%	2/24 8%	-	4/14 29%	1/5 20%	0/2 0%	2/22 9%	-
IV AD	10/91 11%	9/53 17%	0/22 0%	4/26 15%	3/4 75%	24/41 59%	1/9 11%	3/7 50%	5/19 26%	-/2
Total	10/158 6%	17/116 15%	1/39 3%	7/54 13%	3/4 75%	28/55 51%	2/14 14%	4/11 36%	7/45 16%	-/2

Thus, in view of the numbers of MSS and proportions recorded in Fig. S.B 1, the implications of the list of MSS in Fig. 7.13 for the two issues raised at the beginning of this Summation may be reviewed here.

First, with regard to the proportion of extant MSS written by non-professional writers, in any Group there are very few such MSS with start-dates in II AD. From III AD the percentage increases, but all are at or below 15% except for Groups F (29%) and G (20%), although the small total number of MSS in Group G for III AD precludes drawing a firm inference from that result. Group F stands out as having a high number of MSS written by non-professional hands, as we would expect for 'liturgical and private prayers,' many of which are amulets. From IV AD the proportion increases again, except for Groups C and G. All the others increase but, with the exception of Groups E and H (both with too few total MSS to take into account), the only Groups with a proportion above 20% are Groups F (60%) and I (26%). Thus, if we set aside results for Group I, since it is a miscellany of unknown texts, as well as the Groups where the totals are too few to be significant (including Group G in III AD), only Group F stands out as having a percentage of MSS written (or copied) by non-professional hands higher than 20% for any set of MSS with a start-date in II–IV AD. The overall totals reinforce this conclusion, if we again set aside Groups E (too few MSS), I (random collection) and J (no results). The only exception is Group H which, although it only has 11 MSS in all, is significant since some of those are of substantial

size and, as magical texts, have at least conceptual links to those in Group F. Therefore, with the qualifications made above with regard to statistically insignificant Groups, the proportion of MSS written by non-professional writers is quite small ($\leq$ 17%) for all sets of MSS in their Groups, except for Groups F and G (and H). The ramifications of this will be discussed at greater length in the General Conclusion in Part C, Ch. 8.

Second, are there any observable trends within individual Groups? There is an obvious steadiness or increase in proportions from II to III AD in all Groups, except for Groups D and H. These latter two may be discounted due to the small number of MSS involved (esp. for II AD). From III to IV AD there is an increase in proportions in all Groups except for Groups C and G. If we set aside Groups E and H (too few MSS), as well as Group I (random collection), only Groups A (0-11%), D (8-15%) and F (29-59%) show a marked increase in the proportion of MSS copied by non-professional writers, while the proportion in Group B rises slightly (15-17%). Group C drops to having no such MSS (8-0%), but that is only caused by one less MS, so to speak of a decline is meaningless. Again, the implications of this result will be discussed at greater length in the General Conclusion in Part C.

There remain two caveats to make at this point.
First, some of the MS entries noted above come from the same codex (namely **87-2**+**710-1**, **246-1**+**949-2**, **548**+**557**+**569**, **862**+**863**+**864**). However, there are only a small number of them, so our conclusions should not be greatly affected.

Second, I have distinguished between Category 3^{+} and Category 2^{-} in handwriting; and we have not yet addressed the issue of how definite this distinction is, or what effect it might have if there are some MSS in either Category that actually belong in the other. I suggest that the distinction is possible and plausible, despite not being absolutely hard-and-fast (see Ch. 2, §2.3), and that the list of MSS in both Categories in Fig. 7.13 is correct *in general*. However, what difference would it make to the above results if some of the MSS in Category 2^{-} actually belonged to Category 3^{+}, or *vice versa*? Let us take the extreme case of putting all the MSS in Category 2^{-} into Category 3^{+}, and examine how this would affect the results presented above. Fig. S.B 2 below presents the tallies for the numbers of MSS in terms of their start-

dates and content Groups, now including those in Category 2⁻ with those in Categories 3 / 3⁺. Again, a dash indicates that no information is available.

Figure S.B 2 **Numbers of MSS in handwriting quality Categories 3 / 3⁺ and Category 2⁻**

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*
II AD	1/16 6%	1/10 10%	4/5 80%	1/4 25%	-	-	-	1/2 50%	0/4 0%	-
III AD	11/51 22%	18/53 34%	5/12 42%	5/24 21%	-	7/14 50%	2/5 40%	1/2 50%	4/22 18%	-
IV AD	19/91 21%	12/53 23%	8/22 36%	10/26 38%	3/4 75%	29/41 71%	1/9 11%	4/7 57%	8/19 47%	-/2
Total	31/158 20%	31/116 27%	17/39 44%	16/54 30%	3/4 75%	37/55 67%	3/14 21%	6/11 56%	12/45 27%	-/2

Obviously, the numbers of MSS increase in most cases, since an extra 78 MSS have been included. In terms of the proportions of MSS compared to the total number in each set, the percentages are higher in most cases because more MSS have been included. However, proportions are still very small in II AD in most cases, with higher results only occurring in sets of 5 MSS or less. In III AD, setting aside Groups G and H (too few MSS) and I (a random collection), Group F again has the highest (50%), although Group C comes close (42%). All others range from 21% to 34%. In IV AD, percentages become more diverse; but leaving aside Groups E (too few MSS) and I (random collection), Groups F (71%) and H (57%) stand out as higher, with the remaining Groups ranging from 11% to 38%. The totals reflect a similar trend, with Groups F (67%) and H (56%) standing out well above the others (which range from 20% to 44%), again leaving aside Group E (too few MSS). Thus, disregarding MSS in Group C from II AD, Groups E and H as possibly atypical sets (due to the small samples), as well as Group I (as a random collection), the proportions for sets of MSS in their Groups are all between 6% and 42%, except for Group F (50-71%). Since there must be a rise in proportions with the addition of the extra 78 MSS (out of 498, not including the Jewish MSS), it is not surprising that proportions in Groups A, B, D and G have risen by about 20% (from a maximum of 17% to one of 40%). The general pattern of proportions being mostly well below 50% is maintained, with the proportion of MSS in Group F still the highest by far and somewhat higher than in the previous list.

So, on the basis of this 'extreme case' scenario of moving all MSS in Category 2⁻ into Category 3⁺, proportions mostly rise, as we would expect, but not by more than

c. 20% in Groups with a significant sample. Since this is an extreme case, however, if only a few MSS from Category 2^{-} are to be assigned to Category 3^{+} instead, the difference would be small. Indeed, it is possible that some MSS assigned to Category 3^{+} might belong conversely to Category 2^{-}, so that the difference is likely to be negligible.

With regard to any trends in the occurrence of such MSS, again the percentages stay steady or increase from II AD to III AD, except for Groups C and D. In IV AD, the proportions contain some rises (Groups D, F, H, I) and some falls (Groups A, B, C, G) from III AD. Thus, the picture of trends is somewhat different from the trends seen when only MSS in Categories 3 / 3^{+} were counted, where proportions in all Groups rose from III to IV AD, except for Group C and the statistically insignificant Group G. It seems, then, that the pattern of trends in the number of MSS copied by non-professional writers would change somewhat, if we were to include all the MSS assigned to handwriting Category 2^{-}.

However, the trends in our second set of results can be viewed differently, if they are classified in terms of whether the previous trend stays the same (Group E), becomes more pronounced (Groups C, D, F, G, H and I), or is reversed (Groups A and B). The first two of these sets are not surprising in view of the inclusion of extra MSS – and Group E has no more – but the third requires some discussion. Suffice it to say, that higher proportions are again not surprising, as the trend in Group A went from a rise of 0-11% to a fall of 22-21% and in Group B from a rise of 15-17% to a fall of 33-23%. But the inclusion of the extra MSS has reversed the trends in both Groups. Even here, however, Group A moved from a sharp increase to a slight fall, and Group B moved from a slight increase to a sharp fall. So the reversal of trends is not as great as it might seem at first sight. Again, since this is an extreme supposition, it is reasonable to suggest that, if only a few MSS were wrongly assigned (either way), then the difference in trends would be slight indeed. On the other hand, if our classification is correct (as in Fig. S.B 1), then the evidence as it stands merely shows that from III AD unskilled or careless scribes began to copy MSS in Group A more than they had done before, and this continued into (and no doubt beyond) IV AD. The same occurred in the case of MSS in Group B, although the number fell in IV AD. In both cases, the proportions stay low in IV (11% for Group A, 17% for Group B) because

there is a great increase in MSS in Category 1^{-} and (especially) the calligraphic Category 1.

Therefore, although I affirm the validity of the distinction made earlier between the MSS in handwriting Categories 3^{+} and 2^{-}, if we *were* to take the extreme case of including all the latter MSS in with the former (i.e., in all those copied by non-professional writers), apart from necessarily increasing the total proportions by about 20%, the only real anomaly created would be to reverse the trends observed in Groups A and B to a small degree. The fact that this 'extreme case' scenario is the only material difference between the two sets of results (as in Figs S.B 1 and S.B 2) offers some reassurance that, even if the exact dividing line between Category 3^{+} and Category 2^{-} is difficult to define, the overall results obtained in this categorisation of the MSS on my database should not be appreciably affected, either in terms of proportions or trends.

The concluding Part C, Ch. 8, will provide a discussion of the implications of the results presented in this Summation, as well as of other results and observations made in Chs 4-7, in relation to the issues raised at the beginning of this thesis. For this purpose Fig. S.B 3, the complete list of MSS in their assigned Categories of professionalism, is provided as a separate fold-out sheet in the pocket at the back of Vol. 1 of this thesis, since the Conclusion will need to take account of *all* the MSS in my database, not just those written by untrained writers.

PART C:

GENERAL CONCLUSION

Chapter 8
EVALUATION OF THE HYPOTHESIS

This study began by referring to the widely-held assumption that the early Christians' reproduction of their texts was largely an 'in-house' affair, and by implication a private and non-professional matter on the whole. Others have suggested that a number of Christian MSS were produced by trained scribes, especially in Christian 'scriptoria,' from at least the second century AD. According to the hypothesis which formed the stimulus for this study, there were three stages in the use that was made by early Christian communities of the services of professional scribes as copyists of their texts. First, copies of their works would have been 'commissioned locally by a congregation on an *ad hoc* basis from established scriptoria.' Second, Christians gradually set up their own scriptoria, producing 'in-house' copies 'with growing proficiency.' Third, in the fourth century these Christian copying-centres developed into 'highly professional scriptoria which set great store not only by accuracy but also by aesthetic appeal.'[1]

In Part A, which provided the preliminary undergirding and broader context for the detailed Part B, after the introductory Ch. 1 which explained the goal and method, this thesis first of all offered a definition of relevant terms and discussion of certain issues in Chs 2-3. The purpose of this was that my analysis of scribal professionalism would be conducted on the basis of a broader understanding of the realities of writing and reading, of trained scribes and ordinary writers, as well as of writing styles, in the context of the Roman Imperial period (I–IV AD). In particular, the distinction between different kinds of writers (professional scribes and non-professional writers) and different writings styles (documentary hands and book hands) was clarified, as well as the spectrum between professional and non-professional writers. A basic list of characteristics by which to discern the hand of a non-professional writer was formulated. The widespread assumption of the existence of scriptoria as early as II AD was challenged.

[1] Horsley, 'Classical MSS,' 74-76 (all three quotations).

In Part B (Chs 4-7) the thesis presented my analysis of all extant, non-documentary Christian MSS whose start-dates are in II–IV AD, in order to assess the above hypothesis and to examine what can be ascertained about the use made of professional scribes in early Christian circles. The 516 MSS in my database were analysed on the basis of their numerous, diverse characteristics. Where possible and appropriate, aspects of the Jewish MSS in my database and some other MSS in Greek have been drawn in by way of comparison. In this concluding chapter I will briefly review the research undertaken and conclusions reached, drawing on the Summation of Part B but also discussing other matters raised in consequence of the findings in Chs 4-7.

My aim in the thesis has been to assess from different angles whether the Christian MSS in my database were written by trained scribes or by non-professional writers. The means by which this was accomplished was to establish which MSS were *not* written by scribes. This seemed the most reliable way of dealing with the data because the irregularities common to ordinary writers are more easily seen than the regularities customary among scribes. Drawing on Johnson's three Categories of handwriting, at the end of Ch. 4 (in Fig. 4.18) I established a provisional list of MSS produced by non-professional writers (in handwriting Categories 3 / 3^{+}), based on the MSS noted in Ch. 4 (§4.4, Fig. 4.3 – Fig. 4.8). The 'less skilled or careless' professional Category 2^{-} was also included for the sake of comparison. This process was repeated in Chs 5 and 6, each time refining further the interim list of Ch. 4; and in Ch. 6 (Fig. 6.12) a largely confirmed list of MSS was provided. Ch. 7 then proceeded on the general assumption that these MSS were correctly categorised, and checked degrees of consistency for the features examined in that chapter with the list in Fig. 6.12. A final list of non-professional MSS was established in Ch. 7 (Fig. 7.13), and in the Summation of Part B this was analysed and some observations made. On the basis of Fig. S.B 3, which tabulates the handwriting Categories of all 516 MSS except six for which no assessment has been possible, it remains now to consider the further ramifications of these observations with respect to the scribal professionalism evident in the MSS in my database. This will then form a basis on which both to offer an assessment of the original hypothesis and to suggest a model of the use made of trained scribes by early Christian communities.

Before offering my final conclusions, it is as well to recall again the limitations of the data used in this thesis, as referred to in Ch. 1 (§1.4c). The data that is presented and analysed here comprises the Greek MSS of Christian (and Jewish) texts that are available today. Few of these MSS are complete copies of texts, and features of them that are discussed are thus attested in limited ways. Hence, results as to frequency of occurrence are dependent on the portions of MSS that were preserved, discovered and edited in modern times. Indeed, some of those features were only applied intermittently in the first place. The analysis presented and conclusions arrived at in this thesis should be seen in this light. And yet the consistency of the analysis across a range of aspects of the MSS in my database shows that the conclusions are valid; and the following observations are offered on this basis. Further, Egypt is the only area where this research can be tested, because of the wealth of papyrus finds and the relative paucity of comparable finds elsewhere (inscriptions allow us to test other questions, but not often scribal professionalism); and in general what emerges from the data unearthed in Egypt may be said to hold good for the Roman Mediterranean region in the Imperial period where Greek was the dominant language.

8.1 **Scribal professionalism**

The basis on which this research has proceeded has been to note that most writing (and especially copying) of MSS in the early Roman Imperial period was done by professional scribes in a range of settings, from libraries and 'bookshops' to government offices; and this included individuals who performed their craft of writing for a living. Thus, they were called upon to compose and copy all sorts of texts, both 'literary' and 'documentary,' in a range of styles and to certain standards. Of course, the finished MS was affected by a number of factors which are not open to modern scrutiny, such as the physical circumstances of the writer or his bodily and psychological state when he was writing; so we cannot take note of these. We have suggested that the normal means by which texts were reproduced was by visual copying, since there is little evidence that it was done by dictation, let alone dictation to groups of scribes in order to multiply copies with greater rapidity. It has also been shown that the most that can be suggested about cooperation amongst scribes in this period is a loose collaboration, since there is no evidence for the existence of organised 'scriptoria' for the production or reproduction of texts.

We have also seen that, along with a range of qualitative standards to which texts were copied, there was an array of levels of skill or commitment on the part of scribes, and this has been reflected in the distinction between handwriting Category 1 (highly professional – calligraphic) and Category 2 (professional but not calligraphic), as well as the more skilled and less skilled within those Categories. The hand of non-professional (occasional) writers was classed as less skilled than the hands evident in Category 2^{-}. Therefore, it was necessary to develop criteria by which to distinguish the hand of non-professional writers (Categories 3 / 3^{+}) from that of scribes (see Ch. 2, §2.3f); and this was the major basis on which Chs 4-7 proceeded to examine features of the MSS. These criteria concerned certain features of MSS which were examined to see if they had any part to play in establishing the list of MSS copied by non-professional writers. Some of these were found to be relevant (such as the fact that only scribes wrote book hand, or the presence of pagination), but a number (the presence of corrections by the same or a contemporaneous hand, for instance) offered little material relevant to confirm the status of the writer of the MSS one way or the other. Other features were consistent with the fact that a non-professional writer had produced the MS. Each section of every chapter reviewed a feature of the MSS, as far as the data allowed; and in a cumulative progression the final list of MSS copied by non-professional writers in Fig. 7.13 was established. The Summation of Part B discussed the validity of this list and some of its initial implications; and Fig. S.B 3 was provided so that all 516 MSS could be seen in their assigned handwriting Categories. Some final inferences are now drawn from the data presented there.

The *first* point that follows from Fig. S.B 1 (and Fig. S.B 3) is that the overwhelming majority of Christian MSS were copied by trained scribes. In II AD, the proportion of MSS copied by non-professional writers (Categories 3 / 3^{+}) is very small indeed. In III AD, in Groups with significant numbers, the proportions are mostly less than 16%, except for Groups F and G (see below). This should certainly cast doubt on the widespread assumption that on the whole Christian MSS were copied by unskilled writers, and what this may have implied about the accurate transmission of the texts from the earliest period we can examine. The inclusion of stichometric counts in some MSS is also a sure sign of a trained scribe having been the copyist. It is true that, as Roberts suggested, many of them show the hand of scribes accustomed to producing documents; and not many in II AD show a calligraphic hand – although there are

more in III AD. Nevertheless, they still show the skill of a trained scribe. Indeed, in IV AD the proportion of MSS in Categories 1^{-} / 1 rises markedly, which probably shows that after the conversion of Constantine there were many more very capable scribes called upon (or volunteering their services) to copy Christian texts.

My research has shown how the MSS are consistent with this in a number of ways. For example, it was observed in Ch. 4 (§4.3) that whole 'works' (or 'books') were normally copied by one hand, and that this showed that the copying of Christian texts was not done piecemeal, with different people taking on the reproduction of different bits and pieces of these books. It is true that some codices show more than one scribe to have been at work; but this occurs generally in the larger codices of IV AD, and even then whole 'books' were normally copied by one writer. Or again, the fact that the sizes of Christian MSS are generally within the normal range of MSS for this period (Ch. 4, §4.7) is consistent with the widespread use of trained scribes. Other features examined in Ch. 6 which show scribal 'traditions' of copying in many Christian MSS are the inclusion of readers' helps such as *paragraphoi*, punctuation, *diaeresis*, apostrophe, etc., as well as the use of line-fillers and critical signs like the *diplê*. This is consistent with the suggestion that the writers of most Christian MSS were also readers, since both reading and writing were learnt together. They were interrelated (though not identical) skills, and the way in which MSS were copied had in view – at least implicitly – the nature of the reading task, and assumed that readers would be writers as well.

It should also be remembered that certain kinds of texts generally show the hand of a professional scribe, and others that of an ordinary writer. The sole MS with musical notation in my database (**962**) point to a trained scribe, as we would expect. On the other hand, MSS containing a pastiche of short quotations are often written by ordinary writers. This leads to my *second* point, that these 'kinds' of texts can be seen as different 'genres' of texts, which appear in this study as content Groups. It should be added that some Groups, of course, are not formally one 'genre' of texts. Yet the NT papyri in Group B, for example, are texts of one kind owing, in no small part, to the great store which the Christians set by them. What can be said about the implications of Fig. S.B 1 (and Fig. S.B 3) in terms of proportions of MSS in these Groups that were copied by trained scribes? Group I, being a mixed group of

unknown texts, is generally a mixture of professional and non-professional hands. This is evident in the various sections of Chs 4-7, where the results for this Group often differ in a random manner from those of other Groups. They contribute to certain aspects of this study by way of comparison but, due to their disparate nature, their categorisation in terms of professionalism has little to tell us. Group J is similar: little is known about the two MSS in that Group due to their being lost. They, too, cannot form a part of this final analysis. Group E (four hagiographic texts) can only play a minor part in this analysis due to its small size; but it may be observed, at least, that the available sample of texts shows a wide range of professionalism (from Category 3^+ to Category 1), with three of the four MSS in Categories 3 / 3^+, indicating a varied but generally lower level of reproduction – and perhaps then a lower estimate of the importance of those texts.

However, more can be said about the other Groups, particularly as we remember that the texts included in the MSS vary in their genre and hence 'literary level.' In the discussion of Fig. S.B 1 in the Summation of Part B, it was observed that Group F stands out significantly from the rest as having a high proportion of MSS copied by non-professional writers. It also shows an increase in this proportion from III to IV AD. The reason for this is not hard to find, since this Group consists of 'liturgical and private prayers,' a good number of which are amulets. It should not surprise us to find that many of these were written by ordinary writers, because they were likely not to have been 'copied' at all, but rather 'composed' for a particular person in a specific situation. Thus, they were not 'literary' texts, and their mode of production reflects that to a high degree. Finally, we may note here a MS which, although later (VI-VII AD) than the period being considered, and therefore not taken into account for my discussions, was originally destined to be part of a codex of the Gospel of John; but it seems to have been scrapped and put to another use as an amulet by the scribe.[2] Hence, while its final use was as an amulet, its form would reflect its intended status as a 'literary' text. This instance is mentioned because there must have been other similar cases in the period which is my focus; and this would imply that any assertions made about Group F should be rather more nuanced.

[2] Horsley, 'Reconstructing a Biblical codex,' 473-81.

While it might be thought that Group H has similarities with Group F, since it contains magical texts and amulets have a 'magical' aspect to them, texts in Group H are much more deliberate and not tied to specific persons and circumstances in the same way. For this reason, it is not surprising that Group H has some similarities with the proportions for Group F (see Fig. S.B 1), and some also with formal texts to be recited in public (see Ch. 6, §6.9). But the trends in the professionalism of these MSS are idiosyncratic and, coupled with its small number of MSS, Group H is accordingly liable to be irregular in its characteristics.

With respect to the matter of genre and literary level, there are certain comments to be made about the remaining Groups (A–D). It was noted in Ch. 6 (§6.9) that Group C (Apocryphal texts) showed signs of being written with a lower average leading (see Fig. 6.9b), and so perhaps not written for use in a context of public recital. It was suggested there that this may have been a sign that these texts were perceived as having a lower level of significance than those in Groups A, B and D. This suggestion may now need to be tempered in light of the fact that in Fig. S.B 1 Group C shows a very low proportion of MSS copied by ordinary writers. In reality, the tally of nil MSS (of twenty-two) from Group C in IV AD is not very different from four (of twenty-six) from Group D in IV AD, given the accidents of preservation and discovery.

It was observed in Ch. 6 that MSS in Group D showed a slightly lower average leading than those in Groups A and B, but not as low as those in Group C; and the suggestion was made that this indicated that they were felt to be less important than those in Groups A and B. However, since the average leading was only slightly lower than in those, and higher than in all the other Groups, it also pointed to an estimation of these texts as 'orthodox,' and hence they were written in order to be read out to the faithful in public. Groups A (OT texts) and B (NT texts) thus show a more spacious layout than those in Groups C and D on average; this probably indicates an estimate of their importance in the eyes of many (if not most) early Christians, and is reflected both in the professional quality of their reproduction in general and also in their layout being more suited to public reading in particular. Thus, among the Groups that are more 'literary,' Groups A and B stand out as being copied to a 'higher' standard on average, with Group D somewhat 'lower;' Groups C, E, G and H stand lower again.

The proportion of texts copied to a calligraphic standard largely reinforces this estimate, since Fig S.B 3 shows the large number of MSS in Group A and Group B copied to a calligraphic standard, i.e. Categories 1^{-} – 1 (especially from IV AD: fifty-five for A, thirty-four for B), less in Groups C (two in III, eleven in IV) and D (seven in III, nine in IV), and the others even less.

A large number of the MSS in my database, especially those with texts in content Groups A–D (and perhaps E), may well have caused some uncertainty in the mind of scribes accustomed to copying Greek literary texts. The Christian texts may not have appeared by their content or their style to be 'literary' in the usual sense at all; but if a scribe was called upon to copy a Christian text, he may have had no recourse but to treat it as literary and to lay it out in a similar way, since it was obviously not documentary. This situation would have changed by later III AD, and certainly in IV, when more scribes were Christians by conviction, more exemplars were available, and it was more clearly perceived where Christian texts fitted between high literary texts and ephemeral documentary ones. But for II to early III AD this should make us cautious about denoting the Christian texts as 'literary,' and then drawing conclusions as to how they must have been reproduced.

Third, while the above observations and suggestions hold good in general, there are exceptions. The four school texts (**136**, **205**, **239**, **511**) show non-professional hands (Ch. 4, §4.1m), even though they occur in Groups A and B. Similarly, the seventeen MSS which include a pastiche of short quotations (**3+536**, **20**, **91-1** Pl. 29, **195**, **220**, **299**, **323+1083**, **345**, **627**, **682**, **967**, **1150-2**, **1151**, **1159**, **1225**) also show signs of being written by ordinary writers (Ch. 4, §4.1c); yet they are in Groups A, B, D, F and I. Another comparable two MSS are those which have a text used as an oracle (**441**, **1076**), which appear in Groups B and H, respectively. These serve as a warning that the observations and suggestions made above only apply broadly, and that they may not hold for every single text in the relevant Groups.

Fourth, therefore, apart from the MSS in Group F, it appears that a large percentage of Christian MSS were copied commonly by professional scribes, as the proportions noted above show, while taking account of the limitations of the available data. Indeed, a number of the MSS were copied by trained scribes to a calligraphic

standard. Even if Roberts was right to suggest that the scribes who copied them were more used to copying 'documents,' my data shows that they were still trained scribes and not simply occasional writers who turned their hand to copy MSS of personal value to themselves or their friends. This conclusion may be advanced with reasonable confidence, even though we cannot determine whether they were paid for their efforts or did their work voluntarily.

8.2 **Intersection between professionalism and faith**

In order to evaluate the original hypothesis regarding the development of 'scribal professionalism in early Christian circles,' it will be necessary to ascertain whether the MSS on my database were copied by people who were Christians by conviction. It may be that the scribes who copied Jewish Greek MSS from this period (and earlier) were mostly Jewish by faith; but even here it would be difficult to be entirely certain given the lack of firm evidence. As we have noted earlier, it is often assumed that those who copied (or wrote) early Christian MSS were Christians themselves, and thus that the whole process was very much 'in house.' The only hard evidence concerning the Christian faith of the copyists might seem to be the use of *nomina sacra* in the MSS; but even here we have had reason to be cautious about drawing such a conclusion. Indeed, in Ch. 7 (§7.10q) two reasons were given to reject this view, and they bear repeating briefly here.

First, *nomina sacra* were quite varied in form and inconsistently applied in II–IV AD (perhaps more so earlier in that period); and the best explanation for this is that they came into use haphazardly. If this is so, then subsequent copies of MSS which included them would presumably have the occurrences of *nomina sacra* reproduced, and perhaps their number expanded, if the copyist was confident enough about their usage. In this way, as MSS continued to be copied – that is, as they were used as exemplars for the 'next generation' of copies – the use of *nomina sacra* increased, but not in a systematic way. Thus, copyists would only need to copy the MS before them, in order to insert a *nomen sacrum*, and there is therefore no reason to assert that the copyist of a MS which made use of *nomina sacra* must have been a Christian by conviction, even if we admit that in the chain of MSS copied there was one copyist

who was – and it is not necessary to assume even this.[3] This stands in contrast to Roberts' view that there is enough consistency in the form of *nomina sacra* to suggest that they were put forward from 'a single centre.'[4] This study has shown that across the broad range of Christian MSS in II–IV AD the *nomina sacra* occur in a diverse array of forms, as well as being inconsistently used within any one MS. Both of these factors tell against a single authoritative origin for their use.[5]

Second, the other point made in Ch. 7 (§7.10q) was that, even if a MS did not have *nomina sacra* already, just as scribes could have access to templates or pattern books to write documents of various kinds (petitions, reports, etc.), so it is possible that some copyists were given a list of words to be abbreviated (as *nomina sacra*) and instructions about how to do so, and that they simply used these (perhaps inconsistently) as they copied the MSS concerned. This provides another reason to cast doubt on the assumption that Christian copyists *must* have been directly responsible for MSS that included *nomina sacra*.

Therefore, while there may be other ways in which to determine the Christian faith of the copyists, the presence of *nomina sacra* does not offer a firm basis for such an indication. In the case of those MSS that do not contain *nomina sacra*, there is even less certainty about the personal religious conviction of the copyist. If these arguments hold, it is not established that the majority of the early Christian MSS were copied by writers who were themselves Christians. It appears that it is impossible to be certain about whether the copyist of an early Christian MS was a Christian or not. Hence, the most reasonable assessment of the faith of the writers of Christian MSS in II–IV AD is to say that it is impossible to be certain, and therefore that there was probably a mix of copyists who *were* Christian by conviction and those who *were not*. Perhaps, after the time of Constantine there were more writers with Christian faith, but even this remains to be proven. It must always remain a possibility that the copyist of any individual MS containing a Christian text was *not* a Christian by conviction. We have allowed the assumption that because Paul dictated his letters to a trusted associate, only 'trusted associates' (viz., Christians) did the copying and transmitting in later

[3] *Pace* Charlesworth, 'Consensus standardization,' 48, n. 55.
[4] Roberts, *Manuscript*, 28. Cf. Trobisch, *First Edition of the NT*, 8-44.
[5] Hurtado, *Earliest Christian Artifacts*, 128 also concludes that there was in general a gradual and haphazard growth in the use of *nomina sacra*, despite a consistency in the use of the most central items.

generations. The supposition that readings in some NT MSS were changed to comply with the theological predilections of the copyists, with a resulting 'orthodox corruption' of the MSS,[6] would then be put in some doubt, since that supposition depends on the assumption that the copyists were Christians.

At first sight, this may seem a negative conclusion, one which is over-cautious about claiming too much from the data yielded by the MSS. However, the significance of the finding should not be lost to sight. By drawing on the services of trained copyists to have their texts reproduced, the Christians were guaranteed prompt and accurate work (for a fee, presumably); and the accuracy embedded in the copying of the texts served as *the* basis for generally very consistent texts being dispersed across the Mediterranean as Christian mobility occurred. To have ensured accurate copying from the start, rather than leave the copying task to amateur 'insiders,' laid a foundation of thoroughgoing reliability – not at a verbatim level, and certainly not at a letter-by-letter level – which, for all their diversity, MSS of II–IV AD and later attest remarkably. Indeed, this *may* connect to the recently-made observation that a distinct office of *grammateus* (*viz.* 'scribe') never developed in the Christian churches.[7]

8.3 **Stages of development?**

Finally, we have seen good reason to reject the view that the reproduction of Christian texts normally took place '*in* early Christian circles,' or (at the least) to maintain a lack of certainty that this has been proven. It has been a scholarly 'article of faith' that Christians had their texts reproduced differently from other people. It is the contention of this thesis that Christians, just like others, probably made use of the services of trained scribes on the whole, with a small proportion of exceptions being MSS mostly made for private use. The question remains whether there are any identifiable stages in the use of professional scribes in II–IV AD, and whether that became more or less common at different times. From Figs S.B 1 and S.B 3 it seems clear that there was a general increase in the use of such scribes from II to III AD and also from III to IV AD, that is, a general rise during the whole period II–IV AD. However, can anything more be said on the basis of the data presented in those Figures?

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[6] See, for example, Ehrman, *Orthodox Corruption.*

[7] This suggestion was advanced by E.A. Judge in an unpublished lecture, 'The puzzle of Christian presence in Egypt before Constantine,' given at the University of New England, NSW, on 30th July 2009, and is referred to here with his permission.

From Fig. S.B 3 it is notable that from IV AD the proportion of MSS copied to calligraphic standard (especially the upper calligraphic set, Category 1) rises dramatically in Groups A and B; and a similar but smaller rise occurs in Groups C and D. This supports the suggestion made above with respect to the importance attached to the texts in these Groups, and to the corresponding care taken and appropriate size of lettering given to the MSS that contained them for the purposes of public recitation, at least as their main function. In contrast, from IV AD Group F records a steep rise in texts copied by non-professional writers, which is also consistent with the rise in the numbers of people who professed their Christian faith openly from the time of Constantine, and who therefore wrote amulets and similar texts in a manner influenced by Christian thought and vocabulary, but with no particular skill. It is not easy to trace any patterns or trends in the other Groups.

Apart from the remarks in the previous paragraph, it seems to be impossible to make any firm judgment about whether there were trends in the professionalism of those responsible for copying early Christian MSS. Thus, the evidence does not allow us to make any firm statement about 'stages of development' in 'scribal professionalism' in the reproduction of texts in 'early Christian circles,' as originally suggested by Horsley. Further, the copying did not necessarily take place *in* 'early Christian circles' at all. It is also not clear that Christians made more or less use of professional scribes across the course of the first four centuries AD. What is clear is that certain kinds of texts were predominantly copied by non-professional writers: these were the texts that were relatively ephemeral for the Christian communities, but of specific interest to individuals and local groups as against being of fundamental interest to all groups whatever their locality. However, the majority of the texts in the content Groups examined were copied by trained scribes, 'professionals' in that sense.

8.4 **A new model**

Thus, on the basis of the investigation carried out for this thesis, the data suggests that the process by which the copying of Christian MSS progressed during II–IV AD would have been as follows. *First*, professional scribes were engaged to copy these texts from II AD (or earlier, presumably – that is, virtually from the outset). *Second*, such scribes continued this task through to IV AD. *Third*, by III AD the large increase in numbers of Christians (to which the persecutions of AD 250/1, the 270s and the

end of the third century were a reaction) means that among the large number of converts there may well have been copyists. So with the Peace of the Church in early IV AD, there were 'on hand' plenty of proficient copyists who could do the task at all sorts of levels according to the commissioner's demands. And so, by later IV AD there were scribes who were not only professionals but also had a personal interest in seeing it done well and accurately, in accord with their scribal training – as well as others, who were commissioned to copy Christian texts for payment. That there were also undoubtedly scribes who held out against the Christian current as part of the intellectual reaction against Christianity in IV and V was by then of no consequence for the transmission of the Christian texts, as there were sufficient converts capable of undertaking the task proficiently – and professionally.

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