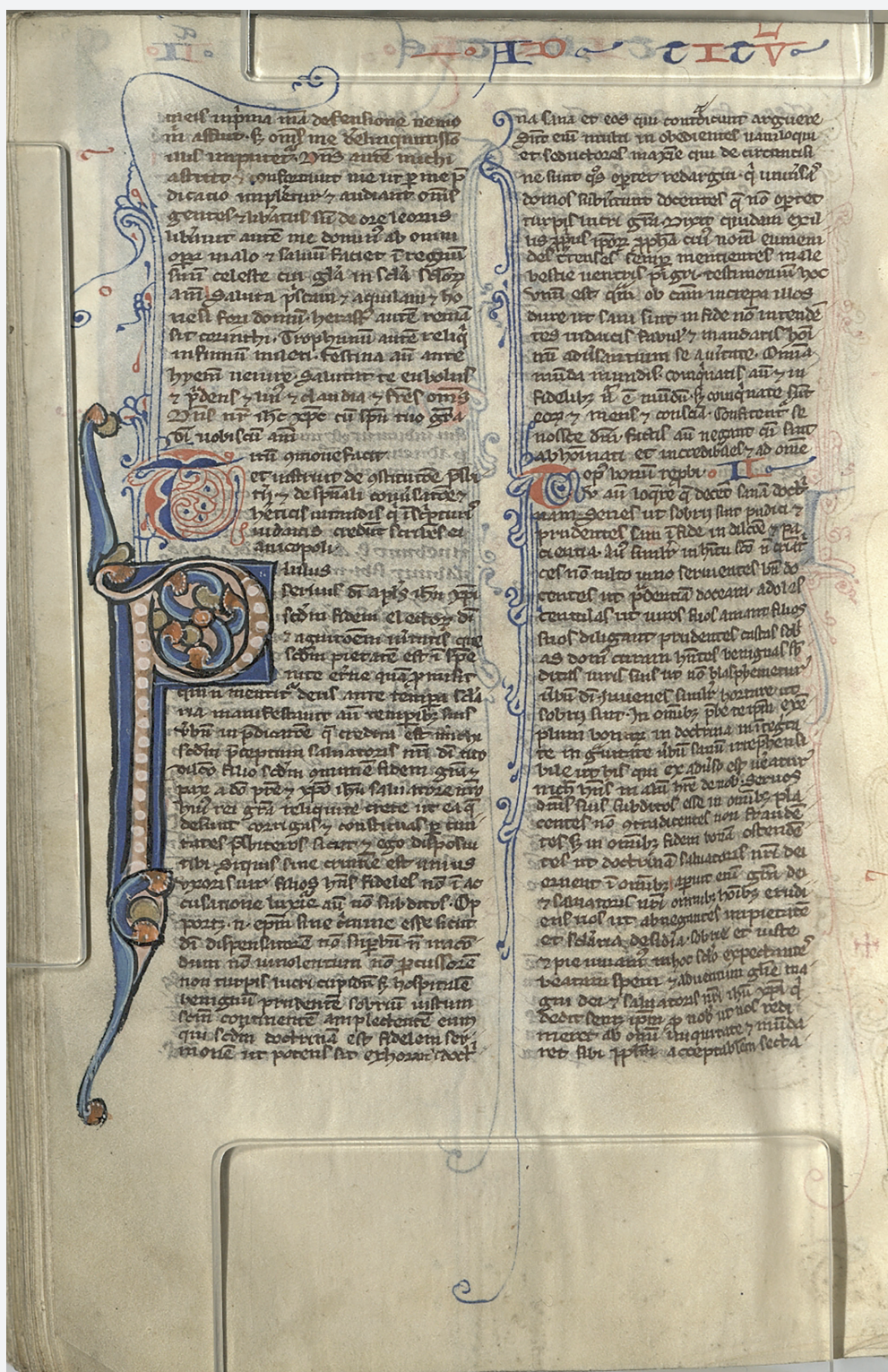


## LIBBY MELZER

# ‘A pocketful of miracles’: The small-format Paris edition manuscript Bible at State Library Victoria

In the collection of State Library Victoria there is a very small-format 13th-century Bible.<sup>1</sup> Bibles of this genre are often referred to as ‘pocket Bibles’, because of their original function: to be carried in the folds of the habits of itinerant monks. This paper aims to reassess the origins of this particular Bible in the light of recent research into similar manuscripts and new developments in the identification of the animals from which their parchment was produced.

In this study, the material of the Library’s pocket Bible will be considered in direct comparison with that of similar extant pocket Bibles, all thought to have originated in centres of production in France, the United Kingdom or Italy, and discussed here as belonging to three groups. The first group was analysed by this author and comprised 29 pocket Bibles held by the British Library, London, or Cambridge University Library. The remaining groups were the foci of two important recent studies. Firstly, in 2013 Medieval historian at the Catholic University of Louvain, Belgium, Chiara Ruzzier published a quantitative codicological study of the material aspects of a large proportion of extant ‘portable Bibles’ (approximately 1800 in number) and identified their key features, including size, number of folios, quire structure, density of the script and certain aspects of the text, according to their region of production.<sup>2</sup> Ruzzier used the term ‘portable Bible’ to include the slightly larger saddle bag Bibles along with the pocket editions. Secondly, at the University of York, United Kingdom, biochemist and zooarchaeologist Sarah Fiddymont and her colleagues carried out a ground-breaking study of 71 pocket Bibles,



An opening of the Library's Bible showing Paul's Epistles to Titus and Philemon. The prologues to both epistles open with red and blue puzzle initials, while the letters themselves commence with decorated initials in pink and blue picked out in white. A small winged beast occupies the initial 'P' at the start of the letter to Titus.



analysing their parchment using their recently developed technique of peptide fingerprinting (a process in which the ratio of the different peptides in the collagen extracted from a very small sample of the parchment can be used to identify the source animal) and finding skins of calf, goat and sheep in differing ratios, again according to the region of the Bibles' manufacture. This research was published in 2015.<sup>3</sup>

### The history of pocket Bibles

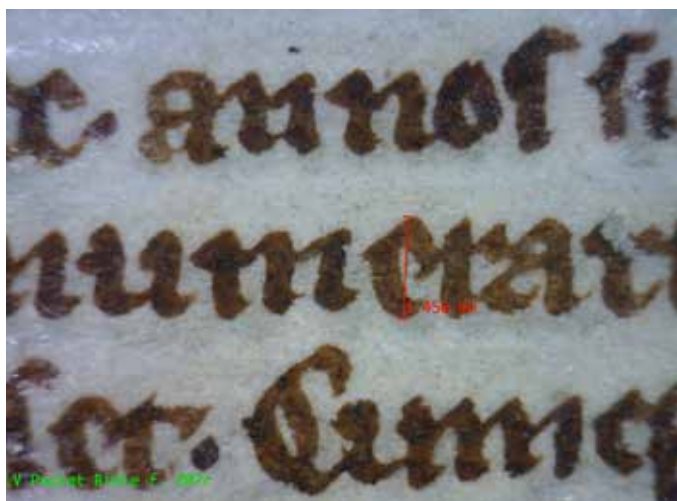
In the 12th century scholars at the University of Paris required large numbers of inexpensive and consistent texts, particularly Bibles – a demand that supported a large flourishing book trade. The needs of the scholars and the innovations of manuscript makers brought about significant and enduring changes to the format, layout and sequence of the books of the Bible. These changes culminated in the modestly sized single-volume Bibles, or pandects, known as Paris Bibles.<sup>4</sup> The content and layout of the Paris Bible were widely disseminated, and many of its elements, including the sequence of biblical books, specific prologues and the use of chapter numbers and running titles, were broadly adopted and have persisted to current times.<sup>5</sup>

Entering the book market in the second quarter of the 13th century, and adopting the Paris model, were the newly formed orders of friars who stimulated a further evolution in the format of the Bible, resulting in even smaller pandects.<sup>6</sup> Both the Dominican and Franciscan orders established schools of philosophy and theology in Paris in around 1230, with the Dominican friars training at the faculty of theology at the University of Paris, where they would have been exposed to these new editions of the Bible. Manuscript historian Christopher de Hamel suggested that the Paris Bible held particular attraction for the orders of friars for four reasons: it was portable, definitive, searchable, and available commercially.<sup>7</sup>

Friars differed from monks in that they did not reside in closed communities but went out to live and preach in society. As they renounced possessions and travelled extensively to preach, they required small books which could be carried on their person. The orders of friars were remarkably successful, and as every preaching friar was required to have a Bible, pocket Bibles would have been required, according to de Hamel, in their thousands – a fact which accounts for their relative prevalence today.<sup>8</sup> Ruzzier's survey and analysis of approximately 1800 portable Bibles estimated an original output of approximately 20,000 small-format pandects in the 13th century. It is believed that of these around 54 per cent were produced in Paris, with most of the remainder produced in regional centres of France, England and Italy.

The program of decoration found within pocket Bibles reflects the hierarchy of the texts, with books of the Bible attracting larger, sometimes historiated initials (containing images related to the text), while prologues and chapters attract smaller, often pen-flourished initials. In smaller volumes, decorated initials or puzzle initials (where the letter is formed of interlocking blocks of red and blue ink often separated with a white line) may be the highest status embellishment. The running titles are consistently in alternating red and blue letters. Chapter numbers are for the most part in alternating red and blue Roman numerals set within the text or in the margins. Within the French Bibles in this study the chapter numbers occur more frequently within the text, while in the English and Italian manuscripts they are more frequently placed within the margins. Verses are often picked out in red, consistently within the French manuscripts in this study, and variably within the English and Italian volumes. Historiated initials for the introductory prologue before Genesis frequently depict Saint Jerome, the translator of the Latin Vulgate Bible, seated and writing, while Genesis often attracts a full-length bar border with roundels depicting scenes from the creation and can terminate in Christ crucified. The gospel of Matthew often opens with the Tree of Jesse (a common image in late Medieval art in which the ancestors of Christ are depicted as a tree descending from Jesse of Bethlehem, the father of David) while the other gospels may incorporate the Apostles, who are often depicted writing, with or without their evangelist symbols; alternatively, the evangelists are represented by their symbols alone: drawn from the symbolism of the book of Ezekiel, Matthew is represented by an angel, Mark by a lion, Luke by an ox and John by an eagle.

Michael Kauffmann, Medieval art historian at the Courtauld Institute of Art, London, identified two critical technical aspects which facilitated the production of pocket Bibles: the first was the manufacture of large quantities of very fine parchment, aspects of the production of which are still not fully understood, and the second was the utilisation of gothic book hand, a further condensed style of the already very small and compact script used for the glosses (explanatory notes about the main text positioned either in the margins or between the lines) of the late-12th-century works of theologian and scholar Peter Lombard, whose writings were standard texts at Medieval universities.<sup>9</sup> Various sources for the very fine parchment have been suggested, including the skins of small animals, such as rabbits, squirrels and rats, and the skins of aborted calves.<sup>10</sup> All of these proposals present complications which have not been fully resolved. Medieval binding expert Christopher Clarkson, by contrast, suggested that the parchment was instead made from skins split



Detail of the compact script on folio 207r taken at 40x magnification with a scale showing the height of a lower case 'e' as 1.45 mm.

laterally to form two or more useable layers, with some being identifiable as grain splits, taken from the outer layers of the skin, and others as flesh splits, from the internal layers.<sup>11</sup>

### State Library Victoria's pocket Bible

On stylistic grounds the Library's pocket Bible has been associated with France or southern England. It includes a list of English saints probably added in the 14th century. But as friars travelled widely, the inclusion of a list of saints a century after the Bible was made does not shed much light on its origins. However, an examination of its parchment and layout supports production in northern France.

In keeping with this edition, the manuscript contains, for the most part, the full text of the Paris Bible, with 63 extant prologues in a volume of 595 folios small enough to be held in one hand. The contents align closely with the Parisian Vulgate, with the exception of two lacunae: the text opens at Exodus 2:22 and ends abruptly at Jude 24 before commencing again at Revelation 5:2. These losses represent a complete gathering of 20 to 24 folios, which would have held the book of Genesis with a prologue by St Jerome, as was standard in a Bible of this type, plus perhaps another 2 folios, meaning that the original manuscript was composed of approximately 621 folios. This is close to the average number of folios found by Ruzzier for French pocket Bibles of this size.<sup>12</sup>

The text of the Psalms ends at folio 245, after which there is a break of several pages before Proverbs commences, at folio 249. Divisions of this nature, termed 'caesura', were identified by Ruzzier as a mechanism designed to break up sections of Biblical text with similar content. In the Library's



A red and blue puzzle initial 'C' with pen flourishes opens the prologue to the book of Job.  
Detail from folio 218v.

Bible, a contemporary hand has added a list of incipits for the epistles and the gospels relating to the temporal and sanctoral cycles.<sup>13</sup>

The Library's pocket Bible is modestly decorated, with a limited palette of painted and pen-flourished initials, occasionally filled with a grotesque, bird or fish, but there are no historiated initials, miniatures or gold. The pages are ruled in grey or red stylus. The text is written in two columns of between 46 and 49 lines, commencing above the top ruling.<sup>14</sup> Prologues are introduced with four-line red-and-blue puzzle initials, and books commence with six-line decorated initials in pink or blue on contrasting grounds, with red and yellow ochre and picked out in white. The running titles and chapter numbers are in alternating red and blue letters, with the chapter numbers positioned within the text. The opening prologue and Genesis, which often have significant decoration, have been lost, but the gospels, which may also be the foci of more significant decoration, did not attract greater attention than the other books.

The manuscript measures 130 by 92 millimetres, though a small tab of parchment extending from the fore-edge of folio 255 shows that at least 2.5 millimetres have been trimmed from the text block. Peptide fingerprinting identified the very fine parchment as calf skin, which ranges from 0.030 to 0.080 millimetres in thickness where measurements can be safely taken along the fore-edge and lower margins; the average thickness is 0.078 millimetres. Many of the folios are very white and translucent, allowing the text from the opposite side of the page to show through. In contrast to many other French manuscripts of the same period, in which the surface of the parchment is frequently pounced, rubbed with powdered pumice to produce a velvet-like surface, the parchment of the Library's pocket Bible frequently has a smooth surface with a slight gloss and very occasionally quite a coarse finish. The

delicacy of the parchment is demonstrated by the distortion on many folios where the ink has caused the parchment to draw in around the text panel. Where hair follicles and blood vessels are apparent, they present almost identically on both sides of the parchment, making the determination of flesh and grain sides almost impossible.

Of the 28 gatherings (groupings of folios), most are between 20 and 24 folios, with 24 being the most common. Ruzzier identified gatherings of 24 folios as characteristic of French pocket Bibles.<sup>15</sup>

The mapping of the location of anatomical features onto the parchment skins indicates that the Library's pocket Bible was constructed from between 50 and 60 full sheets of parchment; however, as will be explored further, in the case of pocket Bibles it cannot be safely concluded that this represents 50 animals, since it may have been possible to extract more than one full-size lamina of parchment from a single skin.

### The manufacture of very fine parchment

As has been already noted, the method of manufacture of this extremely fine parchment has so far not been conclusively explained. In the absence of contemporary records, authors have proposed several theories to describe the process of its manufacture. Firstly, they have suggested that the skins were taken from very small animals, such as rabbits, squirrels or even rats, presumably harvested from wild sources.<sup>16</sup> While several authors identified the practical difficulties of extracting parchment of this consistent uniquely high quality from animals of widely differing ages and states of health, the theory was finally dispelled by Fiddymont and her colleagues on the basis of the peptide analysis of 71 pocket Bibles, which failed to identify any species other than those usually associated with parchment production: calf, sheep and goat. Calf was found to be the dominant skin used overall and particularly in the Bibles from Paris, and the remaining 15 per cent comprised the skins of goats. Bibles from Italy were exclusively made from goat, while the English Bibles were made from all three species, with calf skins making up approximately 60 per cent of the total.

The second theory is that parchment of this extreme fineness was sourced from the skins of aborted or still-born animals.<sup>17</sup> This assertion has been viewed with suspicion, based on the large numbers of pocket Bibles that were produced and the apparent unsustainability of using even 1 skin per 8 folios, which would have required between 60 and 75 prenatal skins per Bible. The existence of uterine parchment in other contexts will not be addressed here, but its particular association with pocket Bibles will be explored further.

Before the use of aborted animals' skins can be declared a viable theory, the economic impact of killing an animal before it reaches maturity needs to be considered. Pocket Bibles were not luxury books, and the materials of their manufacture reflect this status. This is clearly evident in the modest palette and inconsistent ruling of the Library's pocket Bible. Further, while Fiddymment and her colleagues identified calf skin as a valuable commodity, they cited archaeological remains from a 14th-century site in northern France where the skeleton of a pregnant cow was identified with evidence of its having been flayed, while that of the unborn calf had not been flayed. This suggests the skin of the calf was not of comparable value to the skin of the mother. Foetal lambs, kids or calves have not been identified in the medieval diet, meaning that the value of the meat was not a driving force for the slaughter of young animals, and no other commodity is advanced by the extraction of prenatal animals from a productive herd; for example, the killing of animals at or before birth does not foster the production of dairy and has no impact on the production of wool.

As to the question of whether the skins could have been furnished from still-born or very young animals, Fiddymment and her colleagues' calculations – based on the population of Paris at the time, contemporary records for veal consumption and estimates of the percentage of calves that are currently still-born or die within their first month – suggested that adequate parchment could have been produced through this means to provide for the 10,000 pocket Bibles estimated to have been produced in Paris in the 13th century.<sup>18</sup> But this would have required the skins of a large proportion of the animals that died in these circumstances to have been turned into parchment. Harvesting skins from animals that die outside the system of parchment production presents technical problems: systems would have needed to be in place to ensure that the animals were processed rapidly, to prevent blood pooling, which causes staining of the skin – a feature not widely reported in pocket Bibles.

The third theory, not exclusive of the second, is that the parchment was manufactured from skins of established domesticated sources which were processed to extreme fineness through scraping, splitting or other techniques. Not only would the use of traditional domesticated sources have allowed for the dependable supply of highly uniform skins with regard to breed, age, size and nutrition; it would also have permitted the manufacture of parchment to be aligned with the derivation of other products from domesticated herds.<sup>19</sup>

According to patterns identified by zooarchaeologist Sebastian Payne, who studied bone fragments at archaeological sites in Turkey in order to better understand the development of the domestication of animals, the slaughter of





Left: Detail from a puzzle initial on folio 322v, at 40x magnification.

Right: Detail from an initial on folio 275v taken at 40x magnification shows the layers of paint and fine detail of the decoration.

a large number of animals before six months of age would have been associated with the maintenance of a flock for dairy production, with most of the young males and many of the young females being slaughtered once milk production was sufficiently established.<sup>20</sup> The role of meat also cannot be excluded: veal was a reasonably common ingredient in the medieval cuisine, whereas the meat of prenatal animals was not.<sup>21</sup> It seems unlikely that within a highly ordered society where trades were specialised and structured for efficiency and profitability, as was apparently the case in 13th-century Paris, the value of other commodities, such as meat or milk, would have been disregarded. Since the parchment makers of Paris would already have been familiar with the working properties of the skins of local domesticated animals, it seems likely that the high level of technical skill displayed in the manufacture of this parchment represents an advancement of the established techniques rather than an innovation relating to a new material.

It is clear that the technology existed in the Middle Ages to scrape parchment to a very fine membrane. Italian painter Cennino Cennini, writing in the 15th century, described the creation of 'tracing paper' by scraping kid parchment to an exceptional thinness.<sup>22</sup> A more enticing proposition, however, is that posed by Clarkson, and noted earlier, that the skins were in fact identifiable splits.<sup>23</sup> This proposition is made compelling by the economy in being able to divide a skin laterally and thereby produce more folios per skin. Through liming and drying under tension, the parchment-making process causes the reordering of the dermal network so that the fibres run parallel to the surface of the skin, and parchment historian Ronald Reed asserted that this permitted parchment to be torn into several thin laminas.<sup>24</sup>

It is evident that the splitting of skins was possible using medieval technology, as there exist from the period clear laws for the usage of whole

and split skins in the traditions of Jewish ‘parchment’.<sup>25</sup> Writing in the 12th century, the Jewish philosopher Maimonides (1135–1204) identified the appropriate uses for three grades of parchment: *gewil*, a full-thickness hide of a clean animal prepared in the correct manner; *kelaf*, a split taken from the outer layer of the skin – a grain split; and *duxustus*, a split taken from the inner layer of the skin – a flesh split. The full-thickness skin was associated with higher status religious texts, such as the Scroll of Law, while the tefillin and mezuzah could be written on *kelaf* and *duxustus* respectively. The side of the parchment on which the writing should be carried out was also specified: on the hair side of *gewil* and on the inner surface of both *kelaf* and *duxustus*. Although, like many other practical aspects of medieval parchment production, the process of splitting the skin was not described, it was indicated that it should take place after unhairing but before treatment with tanning liquors.<sup>26</sup>

In this context, several observations can be made with regard to the Library’s pocket Bible. Where deep-set hair follicles are present, the follicle pattern is almost identical on the recto and verso, suggesting that the skins are composed almost entirely of the grain layer, the outermost part of the skin, defined by the depth of penetration of the hairs. It is unlikely that, when producing a skin scraped to such an extremely fine membrane, a parchment worker would have retained the weaker, grain layer while removing the more robust and stable corium, the deeper layers of skin composed largely of pure collagen. The surface texture of the parchment within the Library’s pocket Bible varies considerably throughout, potentially representing the three distinct surfaces: the flesh side, marked by a smooth, compact surface with a slight gloss; the grain side, which may retain features such as hair follicles and blood vessels; and the middle corium split, with a fine suede similar to a pounced surface on which the fibres were disrupted when they were separated. All of this appears to support the conclusions of Clarkson that the parchment of the pocket Bibles was made from skins split laterally.

### Comparative pocket Bibles

As mentioned earlier, in order to place the Library’s pocket Bible in context, a group of 29 comparative pocket Bibles (hereafter referred to as the ‘comparative group’) from the British Library, London, and Cambridge University Library were examined alongside data collected by Fiddymment and her colleagues relating to their group of 71 pocket Bibles. The aim of this comparison was to identify trends between the material and layout of pocket Bibles whose origin had been identified. (Table 1 shows the regions of origin represented in each study group.) The results of these comparisons were then considered in the

light of the conclusions arrived at by Ruzzier in her survey of approximately 1800 portable Bibles. The features compared included the size of the volumes, the number of folios, the thickness of the parchment, the page ruling and, to a lesser extent, the colour of the parchment and the program of decoration. The results of these examinations indicated that there is extensive overlap between these features in pocket Bibles produced in France, England and Italy, but trends were observed which were most evident in average data or extreme examples. (The Fiddymment group did not include adequate samples from Italy to allow these to be examined as a set, but it did permit the exploration of a subset of manuscripts believed to have been produced in northern France.)

Table 1 Percentage (number) of Bibles from each region, by study group

|                                       | RUZZIER | FIDDYMENT | COMPARATIVE |
|---------------------------------------|---------|-----------|-------------|
| France                                | 54      | 51 (36)   | 27 (8)      |
| England                               | 20      | 24 (17)   | 31 (9)      |
| Italy                                 | 16      | 4 (3)     | 21 (6)      |
| Northern France or England            | 5       | 4 (3)     | 3 (1)       |
| Southern France or northern Italy     | –       | 3 (2)     | 3 (1)       |
| Other (Spain, Germany, Low Countries) | 5       | 1 (1)     | –           |
| Unknown                               | –       | 13 (9)    | 14 (4)      |

In all three study groups, the French pocket Bibles had the smallest dimension. The smallest in the comparative group was a French Bible in the British Library that, although it had been trimmed, measured 110 by 81 millimetres.<sup>27</sup> The average height of the comparative group Bibles was 155.2 millimetres, while the averages for the French, English and Italian Bibles within the comparative group were 139.5, 153.2 and 172.8 millimetres respectively. This pattern was duplicated in the Fiddymment group of Bibles, whose average height overall was 177.4 millimetres, while the averages within the group for English, central (Parisian) French and northern French Bibles were 196.4, 176.1 and 161.3 millimetres respectively (see Table 2). Ruzzier found regional similarities which were also present in the comparative and Fiddymment groups with regard to the number of folios, with the French Bibles having the greatest number and the Italian the least. Further, the French parchment was the finest and the Italian the heaviest.<sup>28</sup> In summary, within the comparative and Fiddymment groups, the Bibles from northern France were the smallest and had the finest parchment and the greatest number of folios. In these aspects, the Library's pocket Bible is aligned more closely with the French Bibles than with the English, and with regard to the Fiddymment group it is more closely aligned to the northern French Bibles than to the Parisian.

Table 2 Comparisons of height, parchment thickness and number of folios in the Library’s and the comparative and Fiddymment groups’ pocket Bibles, by region of origin

|             |         | HEIGHT (MM) | PARCHMENT THICKNESS (MM) | NO. OF FOLIOS |
|-------------|---------|-------------|--------------------------|---------------|
| Library     |         | 130.0       | 0.080                    | 595.0         |
| All regions |         |             |                          |               |
| Comparative |         | 155.2       | 0.102                    | 487.3         |
| Fiddymment  |         | 177.4       | 0.101                    | 458.0         |
| France      |         |             |                          |               |
| Comparative |         | 139.5       | 0.079                    | 553.7         |
| Fiddymment  | All     | 168.7       | 0.093                    | 514.0         |
|             | North   | 161.3       | 0.084                    | 551.0         |
|             | Central | 176.1       | 0.103                    | 478.0         |
| England     |         |             |                          |               |
| Comparative |         | 153.2       | 0.108                    | 477.3         |
| Fiddymment  |         | 196.4       | 0.120                    | 384.0         |
| Italy       |         |             |                          |               |
| Comparative |         | 172.8       | 0.124                    | 398.7         |
| Fiddymment  |         | –           | –                        | 357.0         |

Note: All results are averages except for those in the Library row.

Subjectively, the French parchment was observed to be paler in colour than the English or Italian. Also, the ruling patterns used in the French Bibles were simpler. By way of example, within the comparative group, the average number of vertical ruling lines in Bibles originating in France was 4.4, while the average for those originating in England was 5.9, and in Italy, 7.5. The average for the whole comparative group was 5.6. With the Library’s Bible, the number of horizontal rulings varied, but 4 vertical rulings were consistently used (see Table 3). This pattern was found in Bibles of the comparative group from all of the regions studied, though it was more common in the French Bibles. In that group’s Italian set, odd numbers of vertical ruling lines were dominant, while in the English set, more marginal lines were more common. A different pattern was observed in relation to the horizontal bounding lines, which contain the main text, and marginal lines, which act to locate text in the margins such as running titles and glosses, with the Italian group having the smallest number, followed by the French then the English.<sup>29</sup> Another point worth noting is that only one Bible from the French and English sets, but five of the six Italian Bibles, had an odd number of vertical bounding lines, with three lines in the intercolumn space rather than two.

Table 3 Average number of bounding and marginal rulings in the Library's Bible and the comparative group Bibles

|            | LIBRARY | COMPARATIVE GROUP |        |         |         |
|------------|---------|-------------------|--------|---------|---------|
|            |         | ALL REGIONS       | FRENCH | ENGLISH | ITALIAN |
| Horizontal | 1.3     | 4.0               | 3.9    | 5.9     | 2.0     |
| Vertical   | 4.0     | 5.6               | 4.4    | 5.9     | 7.5     |

Ruzzier found that the average number of lines of text was lower in the French than in the English pocket Bibles that she studied. She credited this feature to the comparative fineness of the French parchment, which permitted more folios to be bound into a volume, removing the necessity for greater compression of the text.<sup>30</sup> She also discovered that the French pocket Bibles frequently had gatherings of 20 to 24 folios, while the English more frequently had 12 to 16 and the Italian 10 to 12.

Viewed in the context of the pocket Bibles studied in the comparative and Fiddymment groups and by Ruzzier, the Library's Bible fits comfortably in the French sets with regard to size, the number of folios, the fineness and colour of the parchment and the number of lines per page. It is particularly similar in these aspects to the northern French subset of Bibles in the Fiddymment group. The contents of the Library's Bible align closely with the Parisian Vulgate, with a single caesura, which Ruzzier identified as characteristic of non-Parisian French production. All of these factors support a French, possibly northern French, origin for the Library's pocket Bible.

The Library's pocket Bible is an example of a genre of Bibles produced in large numbers in the 12th and 13th centuries. It is a functional book, largely unadorned in comparison to many Medieval manuscripts, but its production was the result of a transformative movement to consolidate, systematise and compact the Bible for theological and practical religious purposes. This movement saw developments in the ordering of the texts, the scripts in which they were written and the materials from which they were made. The large numbers of these Bibles still in existence permitted the meaningful statistical codicological research carried out by Ruzzier. Combining this research with the revolutionary advances made by Fiddymment and her colleagues at the University of York in the reliable and definitive analysis of micro-samples of parchment has proved to be a powerful approach to the understanding of technical aspects of the manuscripts studied. The convergence of these two streams of research has permitted the Library's pocket Bible to be considered in greater depth and context than was previously possible.