

## 5 Sloping Pointed Majuscule

### 5.1 Previous studies

Among the Greek majuscule bookhands from late Antiquity and the Byzantine era, sloping pointed majuscule has been the least studied in a systematic and comprehensive way. The history of previous scholarship on this script can be roughly divided into three periods: the first period extends from the work of Bernard de Montfaucon<sup>279</sup> to that of Viktor Gardthausen,<sup>280</sup> and is above all characterised by the absence or minimal presence of papyrus documents from archaeological excavations;<sup>281</sup> the second begins in the years following the second edition of Gardthausen's manual (1911–1913) and lasts until the early 1970s, when the evidence from papyrus documents, investigated with palaeographical criteria and in ever greater detail, was by now substantial and led inevitably to a rethinking of the historical framework for this script; and finally a third phase, beginning in 1974, with the first international conference on Greek palaeography held in Paris, until the present. This later period is marked by Edoardo Crisci's work on the upright pointed majuscule which,<sup>282</sup> while not concerned directly with the history of sloping pointed majuscule, has had a significant impact on it.

As far as the first period is concerned, Bernard de Montfaucon<sup>283</sup> pays almost exclusive attention to modular contrast and the slope of the script. He sees the bridge from the seventh to the eighth century as a crucial transition for Greek majuscules, with the passage from majuscules with square and round letters (documented until the seventh century)<sup>284</sup> to those found from the seventh century onwards with long narrow letter-forms and written with a slope either to the left or right. Montfaucon's 'evolutionary' vision of the history of Greek majuscules, with its emphasis on the aspect of conscious choice, has been shared by some later palaeographers,<sup>285</sup> Gardthausen among them. He sees sloping pointed majuscule as the result of a conscious and deliberate substitution of letters with a square module

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**279** Montfaucon 1708.

**280** Gardthausen 1879; Gardthausen 1911; Gardthausen 1913.

**281** The Herculaneum Papyri came to light in the years 1752–1754; during the early nineteenth century, a number of papyri found by chance circulated unsystematically in the European antiquarian trade. However, the most significant discoveries were those made between the 1870s and the first decades of the twentieth century: see Cuvigny 2009.

**282** Crisci 1985.

**283** Montfaucon 1708, 230–231.

**284** Square forms are *eta*, *mu*, *nu*, *pi*; round forms are *epsilon*, *theta*, *omicron*, *sigma*, *phi*.

**285** See, for instance, Placentino 1735, 45; Thompson 1893, 154–155; Thompson 1912, 211.

and rounded forms with letters with a rectangular module and oval forms.<sup>286</sup> It is this tendency to substitute letter forms which Gardthausen seeks to trace (in Greek scripts but not exclusively Greek)<sup>287</sup> in the period from the sixth to the eighth century. Indeed he sees the style achieving a structural consolidation in the eighth century, based on two codices which he dates to this time: the *scriptio inferior* of the palimpsest Ambr. L 99 sup. (Anthemius of Tralles, mathematical fragments)<sup>288</sup> and Lond. BL Add. 26113 (liturgical texts).<sup>289</sup>

The first criticism of this interpretation came with the work of the papyrologists Bernard Pyne Grenfell and Arthur Surridge Hunt who, in their introduction to the first volume of their catalogue of the Amherst papyri, maintain that ‘the oval, sloping style of uncial’ emerged from a precise style of script found in papyri from the second to third century—which only later, in 1925, was termed, by Wilhelm Schubart, the ‘strenger Stil’ or ‘severe style’<sup>290</sup>—rather than from a generic ‘square uncial’ from the seventh century onwards.<sup>291</sup> This was an important contribution, made possible only on the evidence provided by Egyptian papyri.

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**286** Gardthausen 1879, 141. The following passage in the manual (unchanged in the 1913 edition) is emblematic of his position in the debate: ‘as the Gothic pointed arch developed from the Romanesque semicircular arch in two stages in the course of the late Middle Ages—barely noticeable at the beginning and then increasingly evident—so a pointed style in Byzantine writing developed in stages, initially as a subtle change involving only single letters, but later as a more decisive stylistic elaboration encompassing all the letters of the alphabet and eliminating from them any curved or squared forms’ (Gardthausen 1879, 154; Gardthausen 1913, 144).

**287** In the 1913 edition, Gardthausen cites examples of pointed majuscule—both sloping and upright—in the margins or in the text (such as transcriptions of single words) of a number of Syriac manuscripts dated with certainty to the years 586, 650–660, 675, 697, and 719 by internal or circumstantial evidence: see Gardthausen 1913, 144–146.

**288** Wattenbach 1876, pl. 6; Belger 1881; CLA III (1938), no. 353 (*scriptio superior*: pre-Caroline minuscule from Northern Italy, second half of the eighth century); Cavallo 1977b, 113, pl. 1b (mid-sixth century); LDAB 7703 (sixth century).

**289** *PS* s. II, I (1884–1894), pl. 4 (eighth or ninth century). It has been identified as formerly being part of the same manuscript as Sin. gr. 776 and Sin. gr. 1593: see Harlfinger 2010, 473.

**290** Schubart 1925, 124. See Funghi / Messeri 1989; Funghi / Messeri 1992; Del Corso 2006; Crisci / Degni (eds) 2011, 73–74; Cavallo 2008, 105–116.

**291** P. Amh. I (1900), 2–3: ‘[...] the oval, sloping style of uncial which is generally considered to have developed out of the square uncial during the seventh century is in reality quite independent of the square uncial and is developed from a third century type which was quite as common in Egypt as the prototype of the square uncial’. It is worth mentioning Sander’s position on the matter: ‘I believe we can assert with confidence that all of these sloping uncial hands [i.e. P. Cairo 10759, LDAB 1088; P. Berol. inv. 9722, LDAB 3901; P. Ryl. I 53, LDAB 2077] have no connection with the later Slavonic uncial, but are parallels to or imitations of the sloping papyrus hand of the second to fifth centuries’ (Sanders 1918, 138); see also Schmid 2006, 239–240.

As far as the studies of sloping pointed majuscule produced in the second period are concerned, this is marked by, in addition to the already mentioned manual by Wilhelm Schubart, which describes, following the suggestions of Grenfell and Hunt, the close connection between the severe style and the first appearances of sloping pointed majuscule,<sup>292</sup> the important contribution of William Lameere to the history of this script.<sup>293</sup> Writing about the sloping pointed majuscule in P. Oxy. XV 1817 (Homer, *Iliad*; LDAB 2212), Lameere confirms the hypothesis that the style derives from a transformation of the severe style<sup>294</sup> and makes an attempt at a wider historical reconstruction. For the transition between the two scripts Lameere refers to two manuscripts for which there are certain datings: 1. P. Oxy. II 223 (Homer, *Iliad*; LDAB 2026), written on the verso of a petition dated 186 CE (P. Oxy. II 237; TM 20506); 2. P. Flor. II 108r (Homer, *Iliad*; LDAB 1773), written on the recto of a fragment from the Heroninos archive (c.264–266 CE) (P. Flor. II 108v; TM 11117). However, Lameere dates the formal consolidation of the elements which characterise sloping pointed majuscule to the fifth century, citing as evidence the codices PSI II 126 and Freer W of the Gospels.

Lameere's historical overview was shared by Guglielmo Cavallo in his 1967 study,<sup>295</sup> though he also sees sloping pointed majuscule as playing a key role in the overall synthesis of Greek majuscules and their chronological and formal relations. Cavallo states: 'it is appropriate to speak of a single canonisation of Greek majuscule with three types existing within this canon, each, it is clear, with its own graphic and cultural manifestation: the sloping pointed (the original type), fol-

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**292** Schubart 1925, 139–144, discussing P. Ryl. I 53 (Homer, *Odyssey*; LDAB 2077), codex Freer W of the Gospels (LDAB 2985), PSI II 126 (Menander, *Aspis* and *Misoumenos*; LDAB 2715). On codex Freer W of the Gospels (Washington, Smithsonian Institution, Freer Gallery of Art, MS. 06.274), see *NPS* s. I, I (190–1912), pl. 201 (main hand dated to the fifth century, hand of the first quire of the Gospel of John to the seventh or eighth century); Sanders 1912, v (two hands, both fourth century); Sanders 1918, 8–9, 134–139 (hand A [first quire of the Gospel of John] dated to the end of the fourth century, hand B, i.e. the rest of the manuscript, to the end of the fourth or beginning of the fifth century); Schubart 1925, 140, fig. 98; Vogels (ed.) 1929, 5, pl. 5 (end of the fourth or beginning of the fifth century); Hatch 1939, pl. 21 (main hand dated to the fifth century, hand of the first quire of the Gospel of John to the seventh century); Cavallo 1967a, 119, pl. 108 (about mid-fifth century); Cavallo / Maehler 1987, pl. 15a (end of the fourth or beginning of the fifth century); Schmid 2006, 227–249 (sixth century).

**293** Lameere 1960, 177–181.

**294** Lameere 1960, 177: 'the type with which it should be placed therefore is severe style, sloping to the right and perhaps with as many affinities to oval script as to Biblical uncial, which would suggest a dating of about the sixth century'.

**295** Cavallo 1967a, 117–124.

lowed by the upright pointed and the round liturgical type, both of which were almost certainly the results of the influence of Biblical majuscule on the first type'.<sup>296</sup> In Cavallo's view, the 'sloping type' 'can be identified with the canonical form in its pure state'. He sees the first indications of the canon in PSI X 1165 (*Acts of the Apostles*; LDAB 2854) and P. Berol. inv. 13273 (Euphorion of Chalcis, *Arai*; LDAB 882), both of which can be dated to between the end of the fourth and the beginning of the fifth century. PSI II 126 and P. Oxy. XV 1818 (Homer, *Iliad*; LDAB 2207), on the other hand, can be dated to between the fifth and sixth centuries and in Cavallo's view show the canonical forms beginning to decline; in later centuries the script begins to show a certain degree of artifice and mannerism in its structure, seen in an emphasis on chiaroscuro contrasts (not because of a precise writing angle,<sup>297</sup> but from aesthetic choice), the tendency to accentuate the breaks in curved lines, and the use of highly stylised apices at the ends of strokes.

Some years later, in 1972, Cavallo<sup>298</sup> returned to the question of the canonical majuscules, suggesting that there was an internal distinction within the canons between different stylistic 'types' as a result of different interpretations and executions of the canonical norms. In relation to pointed majuscules, he draws a distinction between 'vertical types (P. Oxy. VI 849 [*Acts of St Peter*]) and sloping types (P. Cairo inv. 43227 [Menander and Eulopis])'.<sup>299</sup> So once again, several years on from his 1967 study, Cavallo emphasises the view that sloping and upright pointed majuscules are not two canonical scripts but rather two types existing within the same canon.

The third phase of research is marked by Cavallo's contribution to the 1974 Paris conference<sup>300</sup>—in the wider context of his work on Greek majuscules between the eighth and eleventh centuries—in which he reconstructs the history of sloping pointed majuscule and distinguishes three geographical areas involved in its production (Constantinople, Palestine and the Greek Southern Italian world). As for the chronological development of the material the key element is the 'increasing mannerism' found in the script from the eighth century onwards,<sup>301</sup> applying the paradigm of moving from simple to more complex forms used before by other palaeographers working on Greek majuscules.<sup>302</sup> The three geographical distinctions,

<sup>296</sup> Cavallo 1967a, 118.

<sup>297</sup> For the interpretation of the 'writing angle', see Crisci / Degni (eds) 2011, 22–24; see also Cavallo / Fioretti 2014.

<sup>298</sup> Cavallo 1972.

<sup>299</sup> Cavallo 1972, 135.

<sup>300</sup> Cavallo 1977a, 98–103.

<sup>301</sup> Cavallo 1977a, 98.

<sup>302</sup> See, for instance, Thompson 1912, 211; Gardthausen 1913, 119–120.

on the other hand, are made on the basis both of the different angles of slope (a point to which we shall return) and other features of the writing (such as chiaro-scuro contrasts and the morphology of certain letters). It is important to remember that in Cavallo's view the three types have their roots in the period before the ninth century. Except for the type from Constantinople, for which there are no surviving manuscripts, Cavallo cites manuscripts from the fifth to eighth century which lie at the origins of the Palestinian and southern Italian types.

In 1985 Edoardo Crisci published a book on upright pointed majuscule, tracing its history, the various types of the script and the areas in which it was practised. Before Crisci the prevalent theory saw upright majuscule as a derivation from the more widespread sloping pointed majuscule: the straightening of the axis occurred in about the fifth century under the influence of Biblical majuscule.<sup>303</sup> Crisci, however, traces the origins of upright pointed majuscule back to the severe upright style, which from the fourth century onwards was transformed into a 'a more ordered and homogeneous scheme'<sup>304</sup> until it became a full-flown canonical style in the fifth century. Crisci's reconstruction has led to a canonical status being given both to sloping as well as upright pointed majuscules as distinct styles. This is how we find them categorised in Cavallo and Maehler's survey of Greek bookhands between the fourth and the eighth centuries, published in 1987. This study also attempts to provide a more accurate documentation of the early phase of sloping pointed majuscule and of its development as a canon from the end of the fourth century onwards by distinguishing three graphic types.<sup>305</sup> Another important contribution towards the recognition of sloping pointed majuscule found in Greco-Eastern codices of non-Egyptian origin, was published by Edoardo Crisci in 1996.<sup>306</sup> This study documents a significant aspect of this script: with the canonical majuscules, precisely because they adhere to a strict canon, it is usually hard to identify regional variants, though these must have existed, but sloping pointed majuscule constitutes an exception. Distinct stylistic variations can be found in the manuscripts originating in Nitzana, Mount Sinai, Nubia and Mesopotamia, especially

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**303** Cavallo 1977a, 103: 'under the influence of scripts with vertical axis such as Biblical majuscule which it accompanied in the form of marginal notes or commentaries, pointed majuscule which started off sloping gradually conformed to the main script, in other words, its axis became more vertical'; see also Cavallo 1967a, 121–122.

**304** Crisci 1985, 112.

**305** Cavallo / Maehler 1987, 4. A careful analysis of the graphic characteristics of the three identified types, though, finds no uniformity even within each type or correspondence to specific geographic areas.

**306** Crisci 1996.

when these are compared with codices probably made in Egypt or Constantinople or southern Italy.<sup>307</sup>

In addition to the studies already mentioned, we should also mention the work of Boris Fonkič and Fedor Borisovič Poljakov on the script of P. Köln inv. 4780 (*Mani-Kodex*; LDAB 5804),<sup>308</sup> of Lidia Perria on the new material from Sinai which has been discovered since 1975,<sup>309</sup> of Edoardo Crisci on book production in the eastern regions of Byzantium,<sup>310</sup> and of Dieter Harlfinger on the regions of Sinai and Syria (Damascus in particular).<sup>311</sup>

Finally the manual of Greek palaeography edited by Edoardo Crisci and Paola Degni should be briefly mentioned.<sup>312</sup> It makes an interesting observation: it shows that sloping pointed majuscule, at least in the earliest phase of its development (but not exclusively so), is less compact and monolithic than other canonical scripts, more open to oscillations of thick and thin strokes and to angularity (with accentuated or more controlled breaks in the written trace), even in the shape of individual letters. The editors see this as an indication that there was less adherence to an ideal model and in consequence more latitude in sloping pointed majuscule for local and even individual interpretations. Such observations form part of a debate which has been taking place in recent years not only on the concept of ‘canon’—recently brought into question by Cavallo<sup>313</sup>—but also on the application of an interpretative model based on the principles that scripts develop cyclically in three phases—formation, maturity, decline—according to an evolutionary idea which sees scripts

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**307** Crisci 1996, 65–66 (region of Mount Sinai and Palestine), 79–84 (Nitzana), 90–91 (Khirbet Mird), 93–95 (Sinai), 101–105 (Constantinople), 121–127 (Nubia), 152–154 (Mesopotamia), 181–182 (conclusions).

**308** Fonkič / Poljakov 1990: this study proposes a dating of the *Mani-Codex* to the eighth century, in opposition to the traditional datings to between the fourth and fifth centuries, for which see Henrichs / Koenen 1970, 100 (probably fifth century); Turner 1977, 30, 143 (fourth century or between the fourth and fifth centuries); Klimkeit 1982, 59–60, pl. XXXI (fifth century); Koenen 1983, 93 (late fourth or beginning of fifth century); Koenen / Römer (eds) 1985, VII n. 1 (late fourth or fifth century); Turner 1987, pl. 83 (fourth century or between the fourth and fifth centuries); Koenen / Römer (eds) 1988, xv (late fourth or fifth century). For further bibliographical information and digital facsimile, see <http://www.uni-koeln.de/phil-fak/ifa/NRWakademie/papyrologie/Manikodex/mani.html>; see also Römer 2009, 633–637, fig. 26.4.

**309** Perria 1999; Perria / Luzzi 2005.

**310** Crisci 2000.

**311** Harlfinger 2010. For the Greek fragments from Damascus, see Radiciotti / D’Ottone 2008, 50–56.

**312** Crisci / Degni (eds) 2011, 112–118.

**313** See note 7 of the Introduction and the *Glossary of Palaeographical Terms employed in the Text* in this volume.

moving from simplicity towards ever increasing complexity and artifice.<sup>314</sup> Seeing sloping pointed majuscule as a ‘weak canon’ can lead to a reconsideration of the ways the evolutionary model is used to try to date undated material.

## 5.2 The characteristics of sloping pointed majuscule in the light of recent studies

On a purely formal level, the main distinguishing characteristics of sloping pointed majuscule can be summarised as follows: the contrast between letters which can be inscribed in a rectangular module with the short side on the base line (*epsilon*, *theta*, *omicron*, *sigma*) and broader letters which can be inscribed in a square module or a rectangular module with the long side on the base line (*delta*, *eta*, *kappa*, *mu*, *nu*, *omicron*, *pi*, *upsilon*, *phi*, *psi*, *omega*); the breaks in the curved strokes of letters *epsilon*, *theta*, *omicron*, *sigma*, *omega*, with resulting angularity in the shape of the letter; a slope of the writing axis to the right; breaking the bilinear system with *rho* and *upsilon* descending below the base line and with *phi* and *psi* breaking both the lines below and above.

However, within this synchronic overview some scholars have tried to identify several guide-elements (both general characteristics and individual distinctive forms) which could be useful in reconstructing the diachronic development of the style and also for a tentative geographical distribution of the manuscript production.

Schubart was the first to attempt these tasks.<sup>315</sup> Although he asserts that there are no individual letters which can be exclusively used for dating,<sup>316</sup> he nevertheless indicates within the ‘severe style’ several letters which over the course of the centuries have undergone a noteworthy transformation. In particular he singles out *omega*; during the fourth century this letter begins to show, alongside the form in which the curved strokes are flattened on the base line, also angular curves and a more accentuated central stroke, which would subsequently become characteristic of the sloping pointed majuscule style.<sup>317</sup> In addition, Schubart notes the presence in the codex Freer W of the Gospels of small terminal ornamentations in the letters

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<sup>314</sup> See Orsini 2013, 7–8, and pp. XII–XIII in this volume.

<sup>315</sup> Schubart 1925, 139–144.

<sup>316</sup> Schubart 1925, 141–142.

<sup>317</sup> Schubart 1925, 139–141, figs 96–97.

*epsilon*, *kappa* and *tau* and the breaking of the bilinear system with the letters *upsilon*, *rho*, *phi* and *psi*.<sup>318</sup>

William Lameere, on the other hand, in describing the script in P. Oxy. XV 1817 (attributed to the sixth century) notes several characteristics, such as the tendency of vertical strokes which descend below the base line to curve to the left; the middle strokes in *mu* merging in a wide curve; *omega* with angular curves.

Cavallo has looked more deeply into the formal features, especially as they develop diachronically.<sup>319</sup> In the initial phase he notes on the one hand the presence, when compared to the 'severe style', of a more angular and regular structure and on the other the different forms for the letters *omega* (which Schubart had already recorded) and *xi*. He identifies the emergence of several infractions of the canon in the decades between the end of the fifth and the beginning of the sixth centuries: *alpha*, written in two rather than three strokes, exemplifies the process. At the end of the sixth century the script begins to show, in addition to several alterations in the structure of single letters, a certain overall artifice, which from the seventh century onwards becomes increasingly 'mannerist',<sup>320</sup> with marked contrasts between thick and thin strokes, a tendency to accentuate breaks in curved strokes, and the use of stylised ornamental apices.

In a later study Cavallo<sup>321</sup> suggests that various geographical areas of production can be identified on the basis of the writing angle. The two areas of which the formal features of manuscript production are described in most detail are Palestine and southern Italy. In Palestinian codices Cavallo notes the tendency of the lower terminations of vertical strokes to bend to the left, *delta* with a thickening only on the left end of the vertical stroke, *rho* with a sinuous dorsal stroke, *upsilon* with curved oblique strokes forming a bowl-like shape, *phi* with a soft flattened ring. In southern Italian production, on the other hand, Cavallo notes a certain roughness of execution, a graphic texture lacking compactness, a limited and unbalanced contrast of thick and thin strokes, and an irregular use of decorative elements.

In the same year Cavallo published an article<sup>322</sup> in which he looks in particular at the sloping pointed majuscule used in Greek manuscripts probably produced in Western Europe between late Antiquity and the early Middle Ages. He identifies a number of common characteristics, such as a loosely flowing rhythm of writing,

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<sup>318</sup> Schubart 1925, 140, fig. 98.

<sup>319</sup> Cavallo 1967a, 117–121.

<sup>320</sup> Cavallo 1967a, 119.

<sup>321</sup> Cavallo 1977a, 98–103.

<sup>322</sup> Cavallo 1977b, 112–115.



plain canonical modules, the absence of marked chiaroscuro or heavy ornaments, and only a slight angle of slope (on average about 101°).<sup>323</sup> In his view this kind of sloping pointed majuscule is ‘markedly different’<sup>324</sup> from contemporary codices produced at the same time in centres in Greece and the eastern Mediterranean. Furthermore, he suggests that the minimal slope of the letters in southern Italian manuscripts might be due to the influence of contemporary Latin scripts.<sup>325</sup>

Edoardo Crisci has explored southern Italian production further in his study of the palimpsests of Grottaferrata and he identifies a number of distinctive elements.<sup>326</sup> On a general level, he notes the somewhat careless execution, the soft strokes avoiding excessive angularity, the small module, the chiaroscuro which on occasion is restrained and at others strikingly contrasted, the discreet and sober application or on occasion the accentuation of ornamental additions and the emphasized development of vertical strokes (particularly in *rho*, *phi* and *psi*).

In terms of single letters he notes: *mu* with a central curve and sometimes with ‘bridge-like’ ligatures, the rather narrow *upsilon* with, at times, a curved left stroke, *omega* written with a soft rounded shape and at times with a central ‘bridge-like’ ligature.

Crisci also provides a more detailed description of the different manifestations of sloping pointed majuscule found in eastern Greek manuscripts originating outside Egypt.<sup>327</sup> The most strikingly distinctive forms are found in the manuscripts produced in Nitzana (three examples of sloping pointed majuscule) and in some manuscripts found at Qasr Ibrim (again three examples of the script) as well as in manuscripts which can be assigned to the Mesopotamian region.

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**323** On the measurements of writing angles carried out by Cavallo, see paragraph 5.4 in the present chapter.

**324** Cavallo 1977b, 114.

**325** Cavallo 1977b, 115: ‘the slight slope of the letters leads one to suspect the influence of Latin scripts, which as a rule in the various bookhands from the same period (capitals, uncials, half-uncials) always has a vertical axis’. Latin scripts might have inspired the design of letters such as *alpha* with a protruding loop resembling a tab, or *epsilon* and *sigma* in angular shapes (not dissimilar from capital *E*).

**326** Crisci 1990, 67–68, 72–75, 89–91, 101–107, 108–109, 144–147, 159, 160, 205–216, 237–245, 250, 252–254, 255–256; see also his conclusions at 281–284.

**327** Crisci 1996, 64–66 (Caesarea in Palestine), 79–84 (Nitzana), 90–91 (Khirbet Mird), 93–95 (Sinai), 101–105 (Constantinople), 121–127 (Nubia), 152–154 (Mesopotamia).

Finally an article by Rodney Ast, Alexander Lifshits and Julia Lougovaya should be mentioned, on the discovery of two bifolia written in sloping pointed majuscule in Moscow university library.<sup>328</sup> Their palaeographical analysis of these fragments—attributed to the sixth or seventh century—draws attention especially to the letter *upsilon*: ‘it appears that the thick left-hand and lower strokes and the thin right-hand side of the cup are characteristic of earlier examples of the style; later, the right-hand stroke is always thin all the way down’.<sup>329</sup> The authors date the shift between these two forms of the letter to a period between the sixth and seventh centuries. As a result, they suggest using this element, together with other distinctive features found in the script, for the dating of other manuscripts in sloping pointed majuscule.

Two general conclusions emerge from the results offered so far by the studies on the formal aspects of this script, all very different in terms of the methodologies they use and the number of manuscripts they take into consideration. The first relates to chronology: there are no explicitly dated manuscripts written in sloping pointed majuscule earlier than the ninth century, and even the datable manuscripts, as we shall see, are few and far between and are difficult to analyse. As a result, there is no possibility of constructing, or at least not without severe compromise, a reliable chronological grid, one of the basic tools for establishing a diachronic dating of the various manifestations of a script. The second relates to location: once again, there is no definite evidence for this earlier than the ninth century, although at times the concept of ‘origin’ tends to be merged with ‘provenance’, above all for the material that has come to light as the result of archaeological excavation, such as papyri. As a consequence it is extremely difficult to draw up a detailed map of the possible centres of production.

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**328** Ast / Lifshits / Lougovaya 2016. In the early twentieth century the bifolia were held at the Universitätsbibliothek of Leipzig (Cod. Gr. 7), but were removed to the Naučnaja biblioteka Moskovskogo gosudarstvennogo universiteta imeni M. V. Lomonosova of Moscow (ms. 2Aa 43; inv. И:55-11-96) probably after the Second World War. They belong with a fragmentary manuscript (*Gospel of Matthew*; LDAB 2972) together with Birmingham, Cadbury Research Library, Mingana Chr. Arab. 93 (f. 1), Sin. Harris 8 (ff. 4), and Petropol. RNB Gr. 16 (f. 1).

**329** Ast / Lifshits / Lougovaya 2016, 145.

### 5.3 Dated and datable manuscripts

Nonetheless, despite these difficulties, chronology and localisation of origin are problems which cannot be avoided in palaeographical analysis. We therefore need to begin by looking again at the manuscripts which either are dated or to which a date can be assigned.

We know at present of five explicitly dated manuscripts.<sup>330</sup>

1. Sin. gr. 210 (ff. 188) + Sin. NE MΓ 12 (ff. 31) + Petropol. BAN RAIK 194 (ff. 4) + Sin. Harris App. 16, 22 (ff. 3) (*Gospel lectionary*)<sup>331</sup> – [861/862 CE] – Anonymous scribe – Origin: [Sinai] – Patron: *Menas the deacon* – Average angle of slope:<sup>332</sup> 116° – Fig. 51.

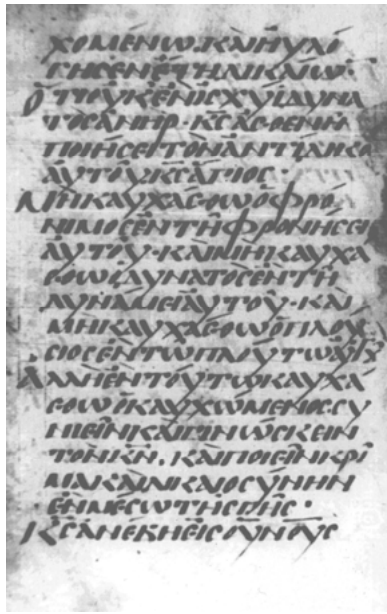
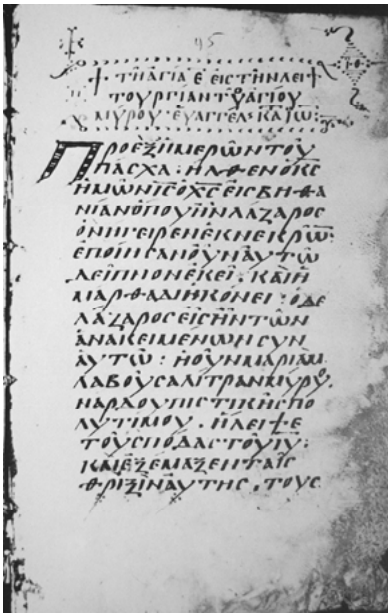


Fig. 51 and 52: Sin. gr. 210, f. 95r and Petropol. RNB gr. 216, f. 318v.

<sup>330</sup> Only essential bibliography will be provided for the manuscripts taken into consideration here; for further bibliographical details, see Orsini 2016.

<sup>331</sup> Politis 1980, 10–11; Harlfinger / Reinsch / Sonderkamp (eds) 1983, 13–14, no. 1, pls 1–4; Weitzmann / Galavaris 1990, 17–19, figs 7–12; Nikolopoulos (ed.) 1999, 144, pls 2, 53; Harlfinger 2010, 462 and n. 7, 463, 465, 467, 470.

<sup>332</sup> For the use of the angle of slope as one of the parameters of palaeographical analysis of manuscripts written in sloping pointed majuscule, see paragraph 5.4 in the present chapter.

2. Petropol. RNB gr. 216 + Sin. NE MΓ 33 (ff. 13) (Uspenskij Psalter) – 862/863 CE<sup>333</sup> – Scribe: Theodor, deacon of the Church of the Anastasis (in Jerusalem)<sup>334</sup> – Origin: Jerusalem – Patron: Noah, bishop of Tiberias – Average angle of slope: 112.3° – Fig. 52.

3. Vat. gr. 354 (*Four Gospels*)<sup>335</sup> – 949 – Scribe: Michael the monk – Origin: [southern Italy?; mainland Greece?; Syria-Palestine?] – Average angle of slope: 99.5° – Fig. 53.

4. Sin. gr. 213 + Petropol. RNB gr. 283 (f. 1) (*Gospel lectionary*)<sup>336</sup> – 967 CE – Scribe: Eustace presbyter – Origin: [southern Italy?; Sinai-Palestine?] – Average angle of slope: 100° – Fig. 54.

5. Sin. ar. 116 (*Gospel lectionary*)<sup>337</sup> – 995/996 CE – Scribe: John presbyter from Mount Sinai – Origin: Sinai – Average angle of slope: 103° – Fig. 55.

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**333** Follieri 1974, 145–148: dated to 862/863. According to Morozov 2007, 89–93, the manuscript should instead be dated to the year 878. Nikolopoulos (ed.) 1999, 95, 119–121, 147 and pl. 9, believes that a number of leaves in quires A' and B' (thirteen leaves in total), and the whole of quire IS' in manuscript Sin. NE MΓ 33 originally formed part of the Uspenskij Psalter, whereas all the remaining leaves were part of manuscripts Sin. gr. 33 and Petropol. RNB gr. 262. In addition, according to Fonkič / Poljakov 1990, 23 no. 2 and n. 9, the scribe of the Uspenskij Psalter was also responsible for manuscript Moskva RGB Φ 201 (Sobranie rukopisej A.S. Norova) 18, 1 (a fragment of the Greek-Syriac-Arabic Psalter described in Pigulevskja 1954, no. 432). See also Olivier 2011.

**334** Vogel / Gardthausen 1909, 136.

**335** Mercati 1904, 3–15; Franchi de' Cavalieri / Lietzmann 1929, pl. 13; Grabar 1931, pls XII–XVII; Lefort / Cochez 1932, pl. 78; Weitzmann 1935, 75–76, figs 511–515; Devreesse 1937, 38–39; Hatch 1939, pl. 69; Follieri 1969, 17–19, pls 7–8; Grabar 1972, 48–49 no. 28, figs 166–168, 170; Spatharakis 1981, 11 no. 10, figs 26–27; Weitzmann 1996, 63; RGK III, no. 471.

**336** Vogel / Gardthausen 1909, 123; Weitzmann 1935, 73, figs 495–496; Grabar 1972, 73 no. 44, figs 321–325; Weitzmann 1973, 10; Spatharakis 1981, 13 no. 18, figs 42–43; Harlfinger / Reinsch / Sonderkamp (eds) 1983, 14–16, pls 5–9; Weitzmann / Galavaris 1990, 35–39, figs 60–82; Perria 1999, 72; Martani 2004, 29, 30, 31–32, 35, 36, 38–39, 42; Weitzmann 1996, 94, figs 695–698; Harlfinger 2010, 465, 467, 470, pl. IV.

**337** Harlfinger / Reinsch / Sonderkamp (eds) 1983, 17–18, pls 18–22; Perria 1999, 70.



Fig. 53: Vat. gr. 354, f. 191r.

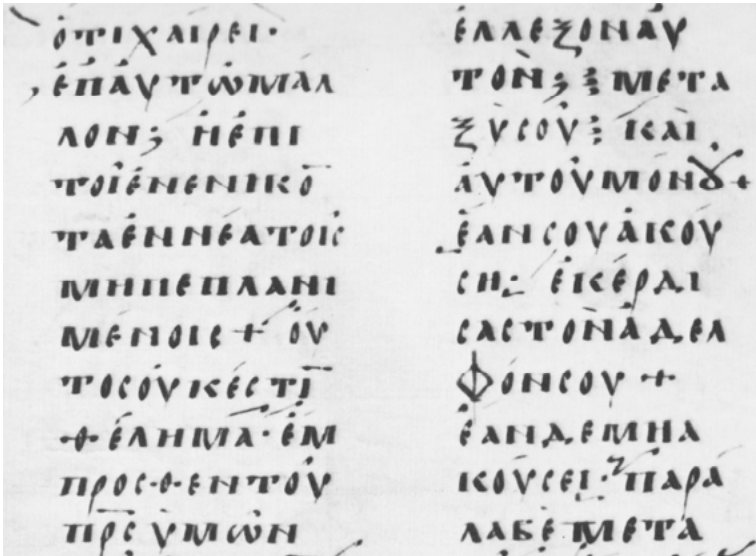


Fig. 54: Sin. gr. 213, f. 76r.



Fig. 55: Sin. ar. 116, f. 203r.

The dating of the first of these manuscripts—which has two subscriptions—to 861/2 is the result of work by Linos Politis.<sup>338</sup> The text of the first subscription (Sin. NE MG 12, on the verso of a loose leaf),<sup>339</sup> written in Biblical majuscule, is very damaged and only the figure ,[.]o' (70), can be read. Politis has completed the date with the figures ,[çt]o' (6370 = 861/862), on the basis of analogies with other formulaic subscriptions and on palaeographical similarities (for the text in sloping pointed majuscule) with the Uspenskij Psalter, dated to 862/863 CE. A second subscription (f. 63v),<sup>340</sup> written in sloping pointed majuscule by the same scribe who copied the text, gives the name of the donor of the codex, a certain Menas, deacon and ἱερός: the scribe, though, remains anonymous. The codex was produced for Sinai though it is not possible to say where.

The manuscripts which are datable on the basis of non-graphic elements can conveniently be divided into two groups, before and after 800 CE. The first group includes several codices which can be dated to before the ninth century. Only five which seem significant are listed here in summary form:

<sup>338</sup> Politis 1980, 11.

<sup>339</sup> Harlfinger / Reinsch / Sonderkamp (eds) 1983, frontispiece; Nikolopoulos (ed.) 1999, pl. 2.

<sup>340</sup> Weitzmann / Galavaris 1990, 18–19 and fig. 12.



Fig. 56: P. Oxy. LXXVI 5074.

1. P. Oxy. LXXVI 5074 (LDAB 140278; Fig. 56): a papyrus fragment containing *Festal Letter 28* by Cyril of Alexandria, written for Easter, 23 March 441.<sup>341</sup> The sloping pointed majuscule (average angle of slope 104.4°) is dated by the editor to be between the seventh and eighth centuries.<sup>342</sup> Judging by the text and by the script 441 can be considered if not a *terminus ad quem* a *terminus post quem*; as a result a dating between the middle of the fifth century and the beginning of the sixth century would not be inappropriate for this script, also when we compare it with,

<sup>341</sup> Évieux / Burns (eds) 1991, 93. The manuscript is a fragment from a papyrus scroll, which preserves an unidentified text (rotated by 90° clockwise) on the side written across the fibres; the text between the two surviving columns is discontinuous: in column I the text corresponds to PG 77, col. 944 ll. 32–41 whereas column II corresponds to PG 77, coll. 948 l. 54–949 l. 10. The missing portion between the two columns corresponds to 121 lines in Migne's edition of the text. As ten lines of text in the scroll are almost equivalent to ten lines in the edition, the missing portion can be estimated to be the equivalent of about 121 written lines (rather than the 140 proposed by the editor). These lines should therefore have been written in the second column, above the surviving text, resulting in an unorthodox column of [132] lines of text. It is therefore more reasonable to suggest the following explanations: 1. the scroll included an abbreviated version of the text in respect to the medieval tradition; 2. a large gap in the text of the exemplar from which the text was copied in the scroll; 3. the scroll contained a copy of the letter with only excerpts from the original text.

<sup>342</sup> The editor (M. Konstantinidou in P. Oxy. LXXVI, 24) suggests a comparison with the hand of P. Berol. inv. 11754 + 21187 [LDAB 2232] (Cavallo / Maehler 1987, pl. 39a; second half of the sixth century).

for example, the script in PSI VIII 977,<sup>343</sup> which can be attributed to the middle of the fifth century.

2. Vindob. Med. gr. 1 (LDAB 10000; Fig. 57–59),<sup>344</sup> the celebrated Vienna Dioscorides, written in Biblical majuscule, probably commissioned by Juliana Anicia and therefore attributed—on the basis of a passage in the chronicle of Theophanes the Confessor<sup>345</sup>—to the beginning of the sixth century (*terminus ante quem* 512/513 CE),<sup>346</sup> though recently this dating has been called into question by Andreas Müller. Gardthausen has already recorded the presence in the margins on leaves 388r–392r (containing the anonymous text *Carmen de viribus herbarum*) of notes in sloping pointed majuscule (average angle of slope 106°).<sup>347</sup> It is certain that 512/513 (if this date is a correct attribution) is a *terminus post quem* for this example of sloping pointed majuscule: in Leslie Brubaker's view this script could be attributed to the eighth century.<sup>348</sup> It is highly probable that the same hand wrote the marginalia on leaves 474v–482r, 484r–485r (containing a commentary on the *Ornithiaka* by Dionysos of Philadelphia) in a pointed sloping majuscule in a smaller module.

3. PSI XIII 1296 (LDAB 2839; Fig. 60)<sup>349</sup>: two parchment palimpsest bifolia containing in the *scriptio inferior* an anti-Manichean Coptic treatise (LDAB 108117)<sup>350</sup> and in the *scriptio superior* the following texts: an overview of the lengths of the days and nights in the Egyptian months (f. α, p. 1), a dialogue between St Basil and St Gregory Nazianzus (f. α, pp. 2–4), a fragment of the Apocalypse of John (f. β, pp. 1–4).

<sup>343</sup> Cavallo / Crisci / Messeri / Pintaudi (eds) 1998, 151–152 no. 70, pl. 56.

<sup>344</sup> *Dioscorides* 1906; Buberl 1937, 1–129, pls I–XLIV; Hunger 1969, 37–41; Gerstinger 1965–1970; Spatharakis 1981, 5–6, no. 1, figs 1–6; Mazal 1998–1999. See Brubaker 2002; Gamillscheg 2007; Müller 2012; Bianconi 2015, 791–795.

<sup>345</sup> De Boor (ed.) 1883, 157; Mango / Scott 1997, 239.

<sup>346</sup> According to Müller 2012, the foundation of the church of the *Theotokos* in the Honoratae neighbourhood of Constantinople—recorded in the chronicle of Theophanes as an act of charitable patronage by Juliana Anicia—cannot be certainly dated to the year 512/513 CE. The verse at the beginning of the Vienna Dioscorides (f. 6v), therefore, which records the gratitude felt by the inhabitants of Honoratae to Juliana Anicia for the construction of the church, constitutes without doubt a significant historical link between the commissioning or composition of the Vienna codex and the date for the foundation of the church given in Theophanes, but is not sufficient to establish an indisputable *terminus ante quem*.

<sup>347</sup> Gardthausen 1913, 137–138.

<sup>348</sup> Brubaker 2002, 197.

<sup>349</sup> Norsa 1939, 36–37, pl. 18b; Naldini 1965, no. 20, pl. XVI, e no. 30, pl. XIX; Cavallo 1967a, 120, pl. 110; Turner 1977, 129, 163; Pintaudi (ed.) 1983, 86 (entry by M. Manfredi); Cavallo / Maehler 1987, pl. 28b; Del Francia Barocas (ed.) 1998, 114, no. 125 (entry by M. Manfredi); Del Corso 2015, 172–178.

<sup>350</sup> Simon 1946, 506. The text of the *scriptio inferior* is attributable to the fourth century.



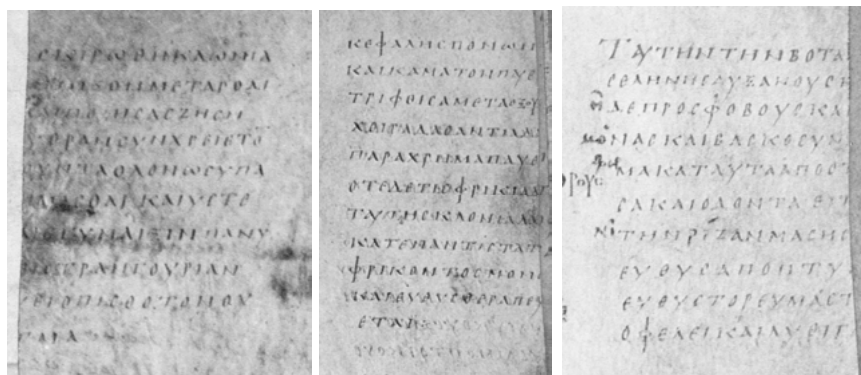


Fig. 57–59: Vindob. Med. gr. 1, ff. 388v, 389r, 390r.

The text on the days and nights in the Egyptian months is written in a documentary hand by a different scribe from the one who copied in sloping pointed majuscule the other texts. This documentary script provides a *terminus ante quem* for the sloping pointed majuscule; it can be compared for example with the script of P. Berol. inv. 21900 (571 CE; divorce agreement; TM 16139);<sup>351</sup> furthermore, Lucio Del Corso has recently proposed a comparison of this script with the one found in P. Bouriant 1 (P. Sorb. inv. 826; LDAB 2744),<sup>352</sup> a papyrus codex containing the *Sententiae* of Diogenes, Menander and Babrius, attributed to the sixth century by Guido Bastianini.<sup>353</sup> If these comparisons hold true, therefore, we can date this particular example of sloping pointed majuscule to around the middle of the sixth century.<sup>354</sup>

<sup>351</sup> Cavallo / Maehler 1987, pl. 32b.

<sup>352</sup> Del Corso 2015, 175–176; see Gascou 2013, 95. For a complete digital facsimile, see <http://www.papyrologie.paris-sorbonne.fr/menu1/collections/pgrec/2Sorb0826.htm>.

<sup>353</sup> CPF 1992, 89–91, no. 48, 1T: Guido Bastianini has produced an edition of the text on ff. 6r–7r.

<sup>354</sup> Del Corso 2015, 177–178, compares this sloping pointed majuscule with the ones found in PSI inv. 1733 (LDAB 2253; attributed to the sixth century) and P. Ness. II 1 (LDAB 4166; attributed to the sixth century).

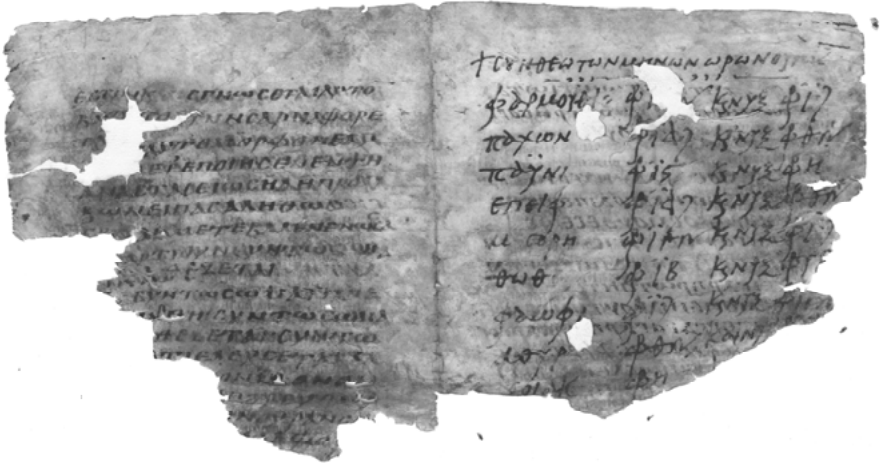


Fig. 60: PSI XIII 1296, f. α.

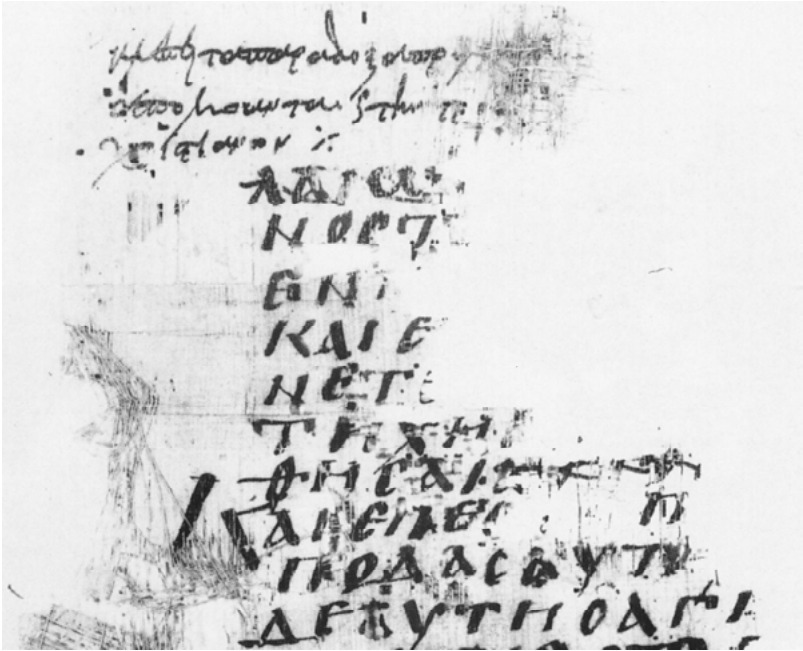


Fig. 61: P. Ness. II 6.

4. P. Ness. II 6 (LDAB 6699; Fig. 61):<sup>355</sup> a fragment of a papyrus codex containing the *Acts of St George*, written in a sloping pointed majuscule (average angle of slope 116.7°), attributed to a period between the end of the seventh and the beginning of the eighth century on the basis of a second hand—considered by the editors to be contemporary with the hand that copied the text—which has added in the upper and lefthand margins corrections in a cursive antique minuscule.

5. Sin. syr. 30, ff. 171–182 (LDAB 117948):<sup>356</sup> the celebrated palimpsest codex *Syrus Sinaiticus*, containing in the *scriptio superior* the lives of various saints, copied at M'arrat Mesrin (Syria) in the year 779; the *scriptio inferior*, on the other hand, contains, taking up most leaves, an ancient Syriac version of the Gospels and some Greek texts on a few other leaves: on ff. 142, 144, 147, 149 some passages from the Gospel according to St John have been identified, written in a Biblical majuscule attributable to the fifth or sixth centuries; on ff. 171–181 (+ binding) another two texts have been identified (the *Epistula magna* by Pseudo-Macarius/Simeon [ff. 171, 172, 176, 177, 181, binding] and the *Sermo asceticus* by Ephrem [ff. 173, 174, 175, 178, 179, 180], written by the same hand in sloping pointed majuscule (average angle of slope 118°), attributed to the sixth century; the year 779 for the *scriptio superior* constitutes an important *terminus ante quem* for this sloping pointed majuscule, which can therefore be attributed to the seventh rather than the sixth century.

The second group of datable manuscripts is formed of three codices attributable to the ninth century.

1. Paris. gr. 437 (Ps.-Dionysus Areopagite)<sup>357</sup> – [ante 827 CE] – Origin: [Constantinople?] – Average angle of slope: 113° – Fig. 62.

<sup>355</sup> P. Ness. II, pl. 5; Crisci 1996, pl. 75.

<sup>356</sup> Smith Lewis 1894, 43–47; Hjelt (ed.) 1930; Voicu 1984. For the dating of the *scriptio superior* to the year 779, see Brock 2003, 106 and n. 16, 112.

<sup>357</sup> Omont 1892, pl. XIV; digital facsimile available at <http://gallica.bnf.fr/ark:/12148/btv1b6000953x.r=Grec+437.langFR>. See n. 90.



Fig. 62: Paris. gr. 437, f. 7r.

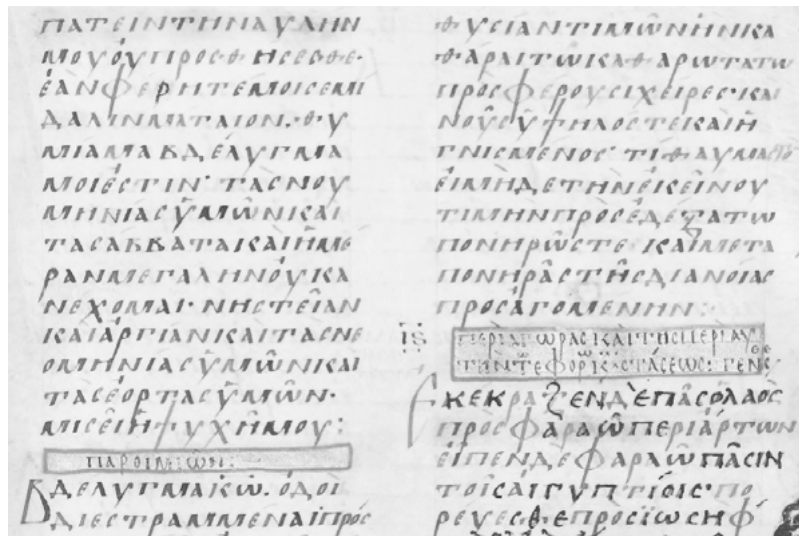


Fig. 63: Paris. gr. 923, f. 14r.

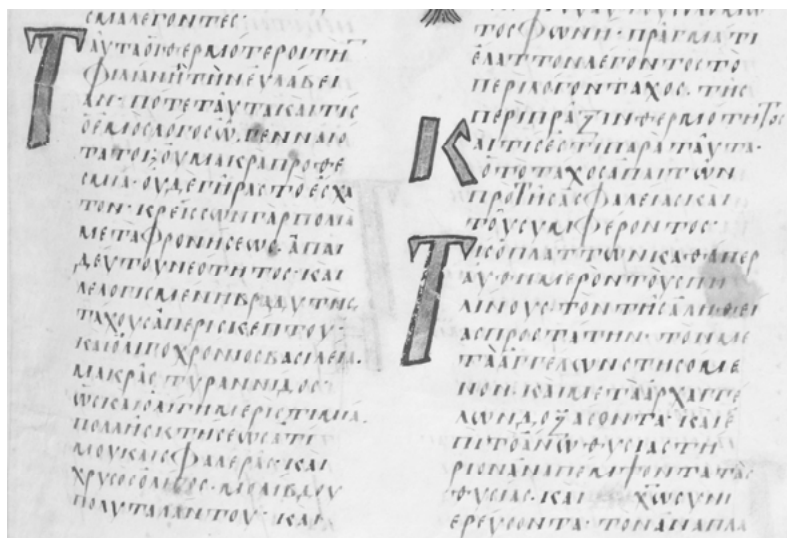


Fig. 64: Paris. gr. 510, f. 21r.

2. Paris. gr. 923 (John Damascene, *Sacra Parallela*)<sup>358</sup> – [c.850–900 CE] – Origin: [Rome?; Italy?; Palestine?; Constantinople?] – Average angle of slope: 112° – Fig. 63.

3. Paris. gr. 510 (Gregory Nazianzus, *Orationes*)<sup>359</sup> – [c.879–882 CE] – Origin: [Constantinople?] – Average angle of slope: 112° – Fig. 64.

It is highly probable that Paris gr. 437 was the manuscript sent as a gift by the Byzantine emperor Michael II to Louis the Pious on the occasion of an embassy to Compiègne in 827 CE. The principal source of this information is the abbot of

<sup>358</sup> Omont 1892, pl. X; Millet 1916, 7, 599; Weitzmann 1935, 80–81, figs 537–545; Jaeger 1947, 101–102; Grabar 1972, 21–24 no. 3, figs 17–22, 24, 26, 28, 30, 32–36; Weitzmann 1979, 20–23; Osborne 1981; Revel-Neher 1992; Bianchini (ed.) 1992, 190–191, no. 127 (entry by J. Durand); Weitzmann 1996, 64–66; Brubaker 1999, 25; Bernabò 2000, 108–109; Evangelatou 2008; D’Agostino 2012, 93; Evans / Ratliff (eds) 2012, 118–120, no. 80 (entry by A. Labatt); D’Agostino 2013, 44, 46–47, 48, 53–54. Digital facsimile available at <http://gallica.bnf.fr/ark:/12148/btv1b525013124.r=.langFR>. As already pointed out in Grabar 1972, 22–23, and Weitzmann 1979, 4–5, 6–7, ff. 103rv, 134rv, 270rv, 289rv, were copied by a later hand (attributable to the ninth century according to Grabar and to the tenth or eleventh centuries according to Weitzmann).

<sup>359</sup> Weitzmann 1935, 2–5; Der Nersessian 1962, 197; Spatharakis 1981, 6–9, no. 4, figs 10–15; Weitzmann 1996, 19–20; Brubaker 1999, 5–7, 236–238, 412–414; D’Agostino 2012, 100; Bianconi 2015, 781, 788, 789, 791. Digital facsimile available at <http://gallica.bnf.fr/ark:/12148/btv1b84522082.r=.langFR>.

Saint Denis, Hilduin, who in a letter written in 835 and sent to the Holy Roman Emperor Louis the Pious, mentions both the embassy and the gift.<sup>360</sup>

As for Paris gr. 923, according to John Osborne<sup>361</sup> the figure depicted on ff. 317v, 278v, 325r could be identified with Methodius—patriarch of Constantinople from 843 to 847 CE—of whom two other depictions exist in the church of the Hagia Sophia in Constantinople, which can be attributed to the second half of the ninth century; on the basis of this comparison (which also takes into account the formal representation of the patriarch on the images) Osborne proposes dating the manuscript to the second half of the ninth century.

The dating of Paris gr. 510 given here is the one proposed by Leslie Brubaker,<sup>362</sup> based on the initial leaves A–C of the manuscript. These leaves are considered to be part of the original manuscript and not later additions. In particular, the sequence of images found on f. Br would seem to indicate that the manuscript was produced some time between 879 and 882 CE. Furthermore, according to Si-rarpie Der Nersessian and Leslie Brubaker, the patriarch Photius may have been behind the planning and creation of this manuscript of Gregory Nazianzus's work.<sup>363</sup>

All these dated and datable examples of sloping pointed majuscule—to which others could be added to extend and deepen the investigation—constitute an initial reference group on the basis of which a diachronic sequence of the graphic forms can be constructed, together with the possible locations where they were produced. Putting the dated manuscripts and the second group of datable ones together, it is clear that they were largely produced in the ninth century and the second half of the tenth century. The locations where they were produced is more problematical: apart from the two manuscripts with definite places of production (Jerusalem and Sinai), the others have been attributed in critical editions of their texts—often on the basis of art-historical evidence—to different geographical areas, such as southern Italy, mainland Greece, the regions of Syria/Palestine and Egypt/Palestine. The few examples in the first group of datable manuscripts, on the other hand, partly indicate four periods: between the second half of the fifth and beginning of the sixth centuries, the middle of the sixth century, the seventh century and the eighth century. As far as place of production

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**360** *PL* 106, col. 16 B-C; MGH 1899, 330; Dölger / Preiser-Kapeller / Riehle / Müller (eds) 2009, 216, no. 413. On the episode, see Omont 1904; Théry 1932, 1–9, 63–69; Loenertz 1970, 177–180; Lowden 1992, 250–253; Magdalino 2011, 105, 113–114.

**361** Osborne 1981.

**362** Brubaker 1999, 5–7.

**363** Der Nersessian 1962, 227–228; Brubaker 1985; Brubaker 1999, 236–237, 412–414.

is concerned, we know for certain where one of them was produced: the Vienna Dioscorides was copied in Constantinople where it remained until the fifteenth century;<sup>364</sup> as a result the marginal annotations in pointed sloping majuscule attributable to the eighth century can only have been added in Constantinople. In the case of the other manuscripts, on the other hand, we know only where they came from: Egypt (Oxyrhynchus and Antinopolis), Palestine (Nitzana) and Syria (M'arrat Mesrin).

This temporal framework provides a tool with which we can construct wider chronologies and relative datings. We can try it out, by way of experiment, on various undated and undatable manuscripts—for example, two manuscripts, already cited, for which scholars have proposed a wide range of possible datings: the Freer W codex of the Gospels and the *Mani-Kodex*.

In the Freer W codex two hands can be distinguished: the earlier (A) is responsible for almost the entire codex (Sanders 1912, 1–112, 129–372), apart from one quire (Sanders 1912, 113–128), containing the beginning of St John's Gospel (Jh. 1.1–5.11), copied by a later hand (B). The main hand (A; Fig. 65) is characterized by a sober chiaroscuro and light terminal thickenings and cannot be plausibly compared with any of the dated and datable manuscripts examined here:

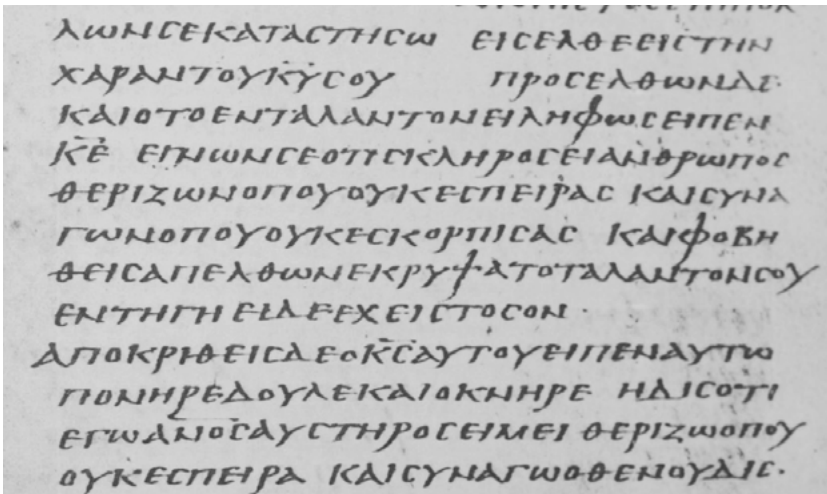


Fig. 65: Washington, Smithsonian Institution, Freer Gallery of Art, MS. 06.274 (Sanders 1912, p. 95).

364 Weitzmann 1935, 34; Weitzmann 1971, 138; van Buren 1973, 68; Brubaker 2002, 206.

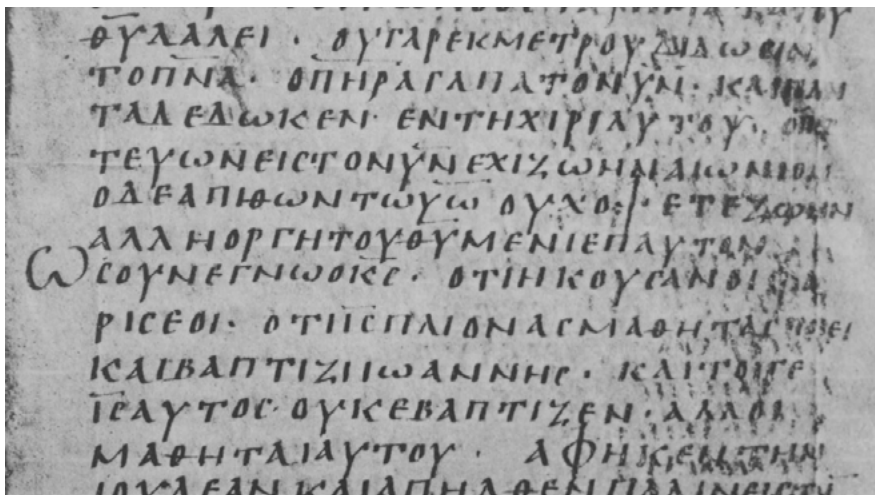


Fig. 66: Washington, Smithsonian Institution, Freer Gallery of Art, MS. 06.274 (Sanders 1912, p. 123).

instead it can plausibly be considered to be earlier than the sixth century: comparisons can be made with the scripts found in PSI I 126 + P. Berol. inv. 13932 (LDAB 2715; first half of fifth century) and P. Vindob. G 2314 (LDAB 94; second half of fifth century). The second hand (B; Fig. 66) displays a marked chiaroscuro and sober terminal thickenings and can be compared with the writing found in PSI XIII 1296, meaning that it can be dated to about the middle (or the second half) of the sixth century.<sup>365</sup>

The *Mani-Kodex* (Fig. 67–68) is a small volume (38×45 mm) and was written by two scribes working—contrary to what has been maintained until now—in different periods:<sup>366</sup> the earlier hand (B) was wholly responsible for the quires II–VII (pp. 25–168) and three bifolia of quire VIII (pp. 169/170–191/192, 171/172–189/190, 177/178–183/184); the later hand (A) was responsible for the entire first quire (pp.

<sup>365</sup> Outside the temporal framework proposed here, a convincing comparison can be made between this second hand and scribe C (ff. 26r–33v) of the *Akhmim-Codex* P. Cairo 10759 (LDAB 1088); see cfr. Kraus / Nicklas (eds) 2004, 25–53; van Minnen 2004; Bernhard 2006, with pls 8–16; Foster 2010, 177–205. It is worth recalling that Schmid 2006, has suggested a dating to the late sixth century for hand A in the Freer W codex of the Gospels.

<sup>366</sup> For the distinction between the different hands, see Koenen / Römer (eds) 1985, XII–XIII. The original collation was follows: 1<sup>12</sup> (pp. 1–24), 2<sup>12</sup> (pp. 25–48), 3<sup>12</sup> (pp. 49–72), 4<sup>12</sup> (pp. 73–96), 5<sup>12</sup> (pp. 97–120), 6<sup>12</sup> (pp. 121–144), 7<sup>12</sup> (pp. 145–168), 8<sup>12</sup> (pp. 169–192).





Fig. 67: P. Köln inv. 4780, pp. 10/15.

1–24) and three bifolia of quire VIII (pp. 173/174–187/188, 175/176–185/186, 179/180–181/182).

Judging from this distribution of the text, it seems probable that hand A intervened later to ‘restore’ parts at the beginning and end of the codex which had been damaged.

Hand A (Fig. 67) is characterised by a marked chiaroscuro, ornamental serifs, lateral compression of letters (all the letters have a rectangular module, with the short side on the base line). In overall appearance the hand can be compared with the script in Paris. gr. 437 and to the marginal writing in the Vienna Dioscorides and can therefore be dated to some time between the second half of the eighth century and the beginning of the ninth century. Hand B (Fig. 68) is characterised by a marked chiaroscuro, a restrained use of ornamental terminations, and letter modules which are less laterally compressed than those of hand A. Hand B can be compared with PSI XIII 1296 and also with hand B—rather than hand A, as Koenen and Römer have proposed—in the Freer W Gospel codex; therefore it could be dated to the sixth century.



Fig. 68: P. Köln inv. 4780, pp. 58/63.

## 5.4 The problem of localisation and the angle of the slope

As far as the problem of localisation is concerned, the angle of writing slope merits special attention as a significant factor. By the ‘angle of slope’ is meant ‘the supplementary angle to that formed by the right angle formed by the vertical axis of the letters and the base line’.<sup>367</sup> Angles above 90° mean the writing slopes to the right; below 90° (a rare occurrence)<sup>368</sup> the writing slopes to the left.

<sup>367</sup> Crisci / Degni (eds) 2011, 24.

<sup>368</sup> An example of pointed majuscule sloping to the left rather than to the right—so far considered an aberrant phenomenon of upright pointed majuscule only—can be found in codex Oxon. Auct. T. inf. II. 2 + Petropol. RNB gr. 33, with average angle of slope 82,8° (with some extreme fluctuation between 78° and 87°); in addition, Petropol. RNB gr. 33, f. 99r, has a subscription containing chronological data (27 November, Thursday, eighth indiction), which in the ninth century correspond to the years 844 and 889 CE and in the tenth century to 934 and 979 CE. See Tischendorf 1860, 53 no. 8; Tischendorf 1861, 5–6, no. IV; Gardthausen 1879, 159; PS s. II, I (1884–1894), pl. 7; Thibaut 1913, 37, no. 4, fig. 18; Gardthausen 1913, 150; Weitzmann 1935, 73; Hatch 1939, pl. 61; Cavallo 1967, 122; Hutter 1982, 27–28, no. 16, fig. 71, 73; Crisci 1985, 137–138, pl. 15b; Crisci 1996, 93 n. 348.

As has already been recalled, this parameter was used by Cavallo in 1977—working in the context of contemporary palaeographical research in Latin scripts—to put forward a geographical framework for manuscripts written in sloping pointed majuscule.<sup>369</sup> The basic assumption is that different angles of slope correspond to different geographical areas of production. The measurements used as a guide were taken from three manuscripts: Paris. gr. 510 (c.879–882 CE, Constantinople?); the Uspenskij Psalter, Petropol. RNB gr. 216 + Sin. NE MF 33 (862/863 CE; Jerusalem); the Crypt. B.α.LV (a palimpsest Homiliary attributed by Cavallo to the middle of the eighth century and to southern Italy).<sup>370</sup> On the method used for identification and the analysis of the data Cavallo tells us that, in line with the general approach of his research as well as with that of Leon Gilissen in studying Latin codices,<sup>371</sup> only the ‘average values’ of the angle of slope have been recorded (Table 30). Commenting on the data Cavallo writes that ‘it is immediately evident that the Hagiopolite type is strongly sloping, the Italian-Greek type only slightly so, while the Constantinopolitan type constitutes the midway point of balance between the two extremes, an indication of the formal perfection which a high-grade scriptorium could achieve and also shown in the minimal oscillation in the axis from letter to letter in the codex Paris gr. 510’.<sup>372</sup>

On the basis of these findings Cavallo then proceeds to distinguish, also calling in aid certain formal characteristics of the script (graphic uniformity, chiaroscuro contrasts, terminal thickenings, the structure and forms of individual letters), the geographical origins of a series of manuscripts. However, in certain cases he has to admit that the formal features of a script are impossible to reconcile with the criterion of the angle of slope: for example, the codices Vat. gr. 749 (*Catena on Job*),<sup>373</sup> Paris. gr. 923, Ambr. E. 49-50 inf. (Gregory Nazianzus, *Orationes*),<sup>374</sup> with shared artistic affinities, show a common angle of slope of c.110°, which would suggest a

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**369** Cavallo 1977a, 99–102. It is worth pointing out that Cavallo 1977b, 112–114, writes that he has measured the slope of the letters according to the ‘method’ proposed by Gilissen 1973, 18–19, even though Gilissen in the cited passage does not provide additional information on how to measure the slope of the letters or analyse the resulting data. On Gilissen and the writing angle, see Pratesi 1977, 205–206; Palma 1978, 272.

**370** Crisci 1990, 220–231, 283, pls 103–105: he is doubtful about the attribution of the palimpsest to southern Italy.

**371** Cavallo 1977a, 98 n. 6, 99.

**372** Cavallo 1977a, 99; it is worth noting that Cavallo 1977b, 115, considers the slight slope of the letter axis in southern Italian manuscripts to show the possible influence of contemporary Latin scripts (capital, uncial and half-uncial).

**373** Grabar 1972, 16–20 no. 1, figs 1–8.

**374** Grabar 1972, 20–21 no. 2, figs 11–16; D’Agostino 2012.

southern Italian origin, although the graphic forms do not show any affinity with the sloping pointed majuscule typical of this area; similarly in the case of Vat. gr. 354 (*Four Gospels*), attributed to different areas on account of its ornamentation, where the angle of slope (98° according to Cavallo) would suggest a southern Italian writing centre while the shape of the letters is unlike anything found in Western production.

It is Crisci who has defined the value and the importance of the angle of slope in the analysis of sloping pointed majuscule.<sup>375</sup> In his view, it is also useful to take into account, together with the average angle of slope, the minimum and maximum oscillations in the inclination of the axis.

Crisci is also responsible for two pieces of research—on the palimpsests of Grottaferrata and on the Greek-Eastern manuscripts of non-Egyptian origin<sup>376</sup>—in which the parameter of the angle of slope is identified and used alongside other features of the script. In the case of the Grottaferrata palimpsests—to judge from which pointed sloping majuscule would appear to be the most widespread form of script in southern Italy before the advent of minuscule—the overall analysis of the manuscripts would confirm the trend identified by Cavallo: in approximately fifteen palimpsests, in which the *scriptio inferior* can be traced to southern Italy, the average values of the angle of slope are concentrated between 97° and 115°, with extreme oscillations from 90° to 122°. As far as the Greek-Eastern manuscripts of non-Egyptian origin are concerned, on the one hand the marked angle of slope (oscillations between 110° and 125°) found in the Syrian and Palestinian area is confirmed, while on the other hand, in the case of a provincial area such as Nubia the inclination—measured in five manuscripts—is scarcely present and irregular (as for the provincial area of southern Italy): the average goes from 100.5° to 105.3°, while the extreme oscillations range from 94° to 112°.

No work has been done since Cavallo and Crisci which specifically focuses on the reliability of the angle of slope as a way of identifying the geographical origins of manuscripts written in pointed sloping majuscule. I have therefore carried out a small experiment: in a sample of fifty-three manuscripts in pointed sloping majuscule (produced between the fifth and tenth centuries), ten ‘chance’<sup>377</sup> measurements have

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<sup>375</sup> Crisci 1988, 101 n. 19; see also Crisci 1996, 80 n. 281.

<sup>376</sup> Crisci 1990; Crisci 1996.

<sup>377</sup> By ‘chance’ measurements is meant measurements which are made—either directly from manuscripts or from reproductions—without taking into account single letters (which present vertical strokes sloping to the right), the position of the leaves in the codex, or of the portion of the page, or of the column.

been taken of the inclination of the axis for each manuscript and the average has then been calculated (Table 31).

In the analysis of the results the first significant finding relates to the three manuscripts which Cavallo took as a model to distinguish and define geographical areas. The average value of the slope resulting from these findings is different from that calculated by Cavallo (Table 32). As an absolute value, the differences between the average values obtained using the two systems are not great, at least as far as the Syrian-Palestinian and Italian-Greek types are concerned. The difference, however, is notable for the measurements for the Constantinopolitan type, which, with the application of the new method, shows an average value for the angle of slope which is practically identical to the Sinai-Palestinian type, and therefore of no value as a discriminating factor. If in addition to the average value one takes into consideration, following Crisci, the maximum and minimum degrees of slope, we find that in Paris. gr. 510 they are equivalent to  $108^{\circ}$ – $116^{\circ}$  (a difference of just  $8^{\circ}$ ), in the Uspenskij Psalter they are  $106^{\circ}$ – $119^{\circ}$  (with a difference of  $13^{\circ}$ ). As a result the average values of the angles of slope in these two manuscripts are fairly uniform whereas in terms of extreme values they differ. This finding is enough to show that, in the absence of other criteria, the angle of slope is not a reliable criterion for the attribution of geographical origins to a manuscript written in pointed sloping majuscule.

There are also manuscripts—in addition to those already indicated by Cavallo and mentioned above—for which the parameter of the angle of slope cannot be reconciled with historical data which indicate that the manuscript was produced in a certain area. For example, using Cavallo's average values with a certain flexibility and merely as a guide, the codices Sin. NE MΓ 51 ( $98.8^{\circ}$ ),<sup>378</sup> Sin. ar. 116° ( $103.1^{\circ}$ ), Freer W of the Gospels (hand B,  $105.9^{\circ}$ ),<sup>379</sup> and the marginal notes in the Vienna Dioscorides ( $106.7^{\circ}$ ), all with values below  $108^{\circ}$ , should, according to Cavallo's scheme, come from southern Italy; or the codices Escorial. Φ III 20 ( $110.4^{\circ}$ ),<sup>380</sup> Sin. NE MΓ 46 ( $110.9^{\circ}$ ),<sup>381</sup> Sin. gr. 491 ( $112.3^{\circ}$ ),<sup>382</sup> Sin. NE MΓ 78 ( $112.8^{\circ}$ ),<sup>383</sup> all with values between  $108^{\circ}$  and  $114^{\circ}$ , should come from Constantinople.

<sup>378</sup> Nikolopoulos (ed.) 1999, 150, pl. 73; Géhin / Frøyshov 2000, 170 n. 14.

<sup>379</sup> Hand B copied the quaternion that includes the beginning of the Gospel of John (Sanders 1912, 113–128); for the dating of this hand, see in particular Sanders 1918, 8–9 (end of the fourth century); Clark 1937, 202 (eighth century); Kenyon 1937, 101 (seventh century); Schmid 2006, 230–236.

<sup>380</sup> Graux / Martin 1891, pl. I, 3–4; Jaeger 1947, 97–100; Lucà 2007, 56–57 and pl. I.

<sup>381</sup> Nikolopoulos (ed.) 1999, 149, pl. 70; Géhin / Frøyshov 2000, 174.

<sup>382</sup> Crisci 1996, 91, 94, pl. 86; Harlfinger 2010, pl. 15a.

<sup>383</sup> Nikolopoulos (ed.) 1999, 154, pl. 92; Géhin / Frøyshov 2000, 174.

As part of this experiment, the behaviour of all those letters with a vertical axis sloping to the right (*beta, gamma, eta, iota, kappa, mu, nu, pi, rho, tau, phi, psi*) was examined in three manuscripts; for each letter ten measurements of the slope were taken (in other words, a total of 120 measurements for each manuscript). The three manuscripts were: Vat. gr. 2144 (beginning of ninth century, *Gospel lectionary*), attributed to both southern Italy and Constantinople,<sup>384</sup> Vat. gr. 428 (ninth century, works by Basil of Caesarea), attributed to Constantinople,<sup>385</sup> and Vat. gr. 699 (ninth century, Cosmas Indicopleustes, *Topographia christiana*), attributed to both southern Italy and Constantinople<sup>386</sup> (Table 33). These findings principally show that the difference between the average calculated with this method and calculated with the method of taking ten measurements for each manuscript is slight, varying between 0.8° and 2.2°. If, on the other hand, the extreme degrees of slope are taken into account (Table 34), the difference between the two methods becomes more significant, from 7° to 9°.

Nonetheless, according to these findings, and applying Cavallo's average values, Vat. gr. 428 and Vat. gr. 699 should be ascribed to Constantinople, while Vat. gr. 2144 could have been produced either in southern Italy or Constantinople; in short, in the case of these manuscripts the angle of slope either reinforces hypothetical attributions based on other criteria (including the formal features studied by palaeographical analysis) or leaves us in uncertainty.

Finally, in the evaluation of single letters it emerges that the extreme degrees of slope found within each manuscript apply at varying times to different letters (Table 35). In summary, it is clear that no rules or specific patterns can be extracted from the degree of slope of individual letters. It is therefore the case that the inclination in the vertical axis of sloping pointed majuscule, despite being one of the most distinctive stylistic features of the script, does not constitute a stable structural parameter. For this reason, in the absence of specific formal features or non-graphic elements of evidence, it does not provide a reliable criterion for geographical attribution.

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<sup>384</sup> Bonicatti 1959a, 321–322, pl. XIV; Jourdan 1969; Engberg 1999, 42; Canart 2000, 88.

<sup>385</sup> Gribomont 1953, 14–15, 332; Rudberg 1953, 147, 204; Devreesse 1965, 14, 62, 86, 125, 174, 182, 191, 254, 273, 400; Leroy 1974b, 73; Gribomont 1979, 257, 258; Fedwick (ed.) 1993, 583 (Sigla Ap1); Fedwick (ed.) 1997, 99–100 (Sigla i300).

<sup>386</sup> Stornajolo 1908; Weitzmann 1935, 4–5; Wolska-Conus (ed.) 1968, 45–47; Leroy 1974b, 73–78; Leroy 1978, 58–59; Weitzmann 1996, 20; Brubaker 1999, 25–26, 113; Brubaker 2000, 526 n. 57; Cantone 2001; Cantone 2006; Kominko 2013, 227–230.

## 5.5 Tables

Manuscripts	Average degree of slope
Sinai-Palestinian Type (Uspenskij Psalter)	115°
Constantinopolitan Type (Paris. gr. 510)	108°
Southern Italian Type (Crypt. B.α.LV)	101°

**Tab. 30:** Angle of slope measured in three manuscripts in Cavallo 1977a.

Angle of slope	Number of manuscripts
97°–100°	7
101°–105°	9
106°–110°	12
111°–115°	16
116°–120°	6
121°–125°	3

**Tab. 31:** Angle of slope measured in 53 manuscripts (average of ten measurements per manuscript).

Manuscripts	Cavallo 1977a average degree of slope	10 measures average degree of slope	Difference
Sinai-Palestinian Type (Uspenskij Psalter)	115°	112,3°	2,7°
Constantinopolitan Type (Paris. gr. 510)	108°	112,1°	4,1°
Southern Italian Type (Crypt. B.α.LV) <sup>387</sup>	101°	98,7°	2,3°

**Tab. 32:** Angle of slope measured in the three manuscripts in Tab. 30 (average of ten measurements per manuscript).

<sup>387</sup> Crisci 1990, 229: ‘marked irregularity in the angle of slope, reaching 104°/105° at times, or at others reduced to 90°, with a determining effect of the verticalisation of the axis’; these findings are confirmed by the ten measurements taken from this hand by the writer, which show maximum oscillations between 90° and 106°.

	Average over 10 measurements	Average over 120 measurements	Difference
Vat. gr. 428	111,2°	113°	1,8°
Vat. gr. 699	115,5°	114,7°	0,8°
Vat. gr. 2144	107,5°	105,3°	2,2°

**Tab. 33:** Angle of slope measured in three manuscripts.

	Maximum oscillations (10 measurements)	Maximum oscillations (120 measurements)	Difference
Vat. gr. 428	105°–121°	102°–120°	-3° / -1°
Vat. gr. 699	111°–120°	102°–124°	-9° / +4°
Vat. gr. 2144	100°–116°	95°–123°	-5° / +7

**Tab. 34:** Angle of slope: maximum oscillations according to the two-measurement methods.

	Average slope	Letters with maximum angle of slope	Letters with minimum angle of slope
Vat. gr. 428	113°	<i>Π</i> (120°)	<i>K</i> (102°)
Vat. gr. 699	114,7°	<i>H</i> (124°)	<i>ψ</i> (102°)
Vat. gr. 2144	105,3°	<i>P</i> (123°)	<i>B</i> , <i>ψ</i> (95°)

**Tab. 35:** Maximum degree of the angle of slope.<sup>388</sup>

**388** Note that for Vat. gr. 428 and Vat. gr. 699 in Table 35, measurements relating to the letter *mu* (measuring 118.6° in the first, and 119.5° in the second), have not been taken into consideration as their side strokes are curved slightly outwards.