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## Considerations on origin and development of the *Perlschrift*

The year 2014 marks the 60<sup>th</sup> anniversary of the publication of Herbert Hunger's well-known article on the *Perlschrift*.<sup>1</sup> His work is still unsurpassed in many ways: first because this type of script is still called *Perlschrift*, and then in the description of its origin and its development, illustrated by specimens from the manuscript collection of the Austrian National Library and the facsimile collection of dated codices by Mr and Mrs Lake.<sup>2</sup> Hunger is credited with identifying the morphological characters and aspects of the peculiar and distinctive traces of a specific style, or *Stilisierung*, of Greek minuscule writings from the late 10<sup>th</sup> century and the beginning of the 11<sup>th</sup>, and with offering a comprehensive and analytical description of them. These accomplishments justify the lasting accolades the article has received and account for the general consensus that has always accompanied it in Greek palaeographical texts and manuals.

Since the 1970s, papers critical of Hunger's study, which have become more numerous in recent years, have revealed several problematic issues surrounding this work. Nonetheless, these dissenting opinions, voiced in a piecemeal fashion and encompassing a range of arguments, have not succeeded in suggesting a comprehensive reassessment of the entire question. The increased number of these articles in the last few decades is not casual as it involves an area of palaeography that has profoundly evolved since Hunger's paper was published. The change most notably concerns the new objective, shared with other disciplines (codicology, history of miniature and philology), which seeks to place the history of writing, and therefore of manuscripts, within the broader context of cultural history. Regarding the middle Byzantine period, palaeography has benefitted in particular from progress in the following areas: more refined analysis methods; better knowledge of the relationship between formal and informal writings; specific studies oriented towards material history and decorations; a greater number of catalogued items (printed and on the web) and digitization campaigns promoted by conservation institutes that have considerably increased the knowledge of Greek manuscripts and the possibility of accessing their reproductions. In light of these considerations, a reassessment of Hunger's work seems particularly appropriate.

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1 Hunger 1954; 1977b, 202; 1988, 101–103.

2 Lake/Lake 1934–1939, voll. I–X.

The *Perlschrift* was the reference minuscule calligraphy for biblical, liturgical and patristic book production between the late 10<sup>th</sup> and the early decades of the 12<sup>th</sup> century, and certain manuscripts in this script are considered among the finest works ever produced. We limit our examples to the most well-known and famous codices: the so-called Menologion of Basil II, *Vat. gr. 1613*<sup>3</sup> – undoubtedly the most striking exemplar of Byzantine manuscript production –, the *Vat. gr. 364*,<sup>4</sup> and the Psalter of Venice, *Marc. gr. Z. 17* (coll. 421),<sup>5</sup> dating to the period of the Macedonian emperor Basil II (976–1025).<sup>6</sup> The prestige in producing many books executed in this script was not without importance as attested to by the imitations in an archaizing style during the Palaeologan period.<sup>7</sup>

In this paper we intend to present several observations on the origins of the *Perlschrift*, beginning with a review of the scholarly literature. In consideration of the complexity of the subject, we cannot at the present time answer all of the numerous questions that hands, textual typologies, decorative elements, and areas and places of manuscript production require. Therefore, the considerations proposed here should not be considered final and may be subject to further verification and revision.<sup>8</sup>

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**3** For additional details about the manuscript, described in Giannelli 1950, 276–278, see the collection of studies accompanying the latest facsimile edition of the codex in D'Aiuto 2008a and, in particular, the palaeographic and codicological contribution by the same author.

**4** Devreesse 1937, 51–53. The manuscript, which is most probably by the hand of the 'copyist of Menologion', is designated to be the object of a future study by the present authors.

**5** According to D'Aiuto 2008b, 106–122, 114 n. 57, it is also by the 'copyist of Menologion', who may have written the *Par. Coisl. 259* and maybe the cod. Dublin, Trinity College, E.3.35. On these attributions, see Bianconi 2015, 806.

**6** See the balanced monograph by Holmes 2005 about the kingdom of the king, remembered for his victorious military campaigns against Bulgarians in the modern historiography (from Schlumberger 1900 on).

**7** See Prato 1994c, 74–114. For instance, see the *Laur. plut. 11,22* (Prato 1994c, 83, pl. 8), which reproduces the writing of *Vat. gr. 1613*. The spreading of the myth of Basil's kingdom as the 'golden age', from the late 13<sup>th</sup> century, is connected to the archaic revival of the *Perlschrift* and of Basil as *Voulgaroktonos* which was popular in the Byzantine historiography in the 13<sup>th</sup> century before the siege of Constantinople by Latins; such a myth reached its climax in 1260 with the discovery by Michael VIII's soldiers, who were conquering Constantinople, of the Macedonian Emperor's sepulcher near St. Jean the Theologian's church in Hebdomon, with the dodecasyllabus epithet, celebrating the leader's deed. See Failler 1999, 175; Stephenson 2000, 102–132: 128 f. – For details about the epitaph, handed down through a group of manuscripts from the 13<sup>th</sup> and 14<sup>th</sup> centuries, see Mercati 1921 and 1922; Lauxtermann 2003, 236–240.

**8** We ourselves are preparing a monograph about the topic, which will be published in the book series *Littera Antiqua* (Scuola Vaticana di Paleografia, Diplomatica e Archivistica).

## Herbert Hunger and the *Perlschrift*

With the publication in 1954 of his *Studien zur griechischen Paläographie*,<sup>9</sup> which included the essay on the *Perlschrift*, Herbert Hunger, educated as a philologist, began a productive period of study in Byzantine palaeography; in this same period, he was also responsible for cataloguing the Greek manuscripts in the *Bibliotheca Palatina Vindobonensis*,<sup>10</sup> a position he had been appointed to several years earlier. The results of this study are extraordinary and extraordinarily modern considering that Hunger achieved them with methods and knowledge acquired in palaeographical fieldwork, and therefore as an autodidact. He had already developed a critical awareness of the research that was being conducted in the field of Latin palaeography at that time.<sup>11</sup> Greek palaeography, on the other hand, was still a long way from obtaining meaningful results, and several more decades would pass before autonomy in the discipline was established.<sup>12</sup>

Although the main ideas of Hunger's study have been presented and discussed on multiple occasions in the scholarly literature, we would like to retrace its content for the purposes of revisiting *Perlschrift*. We begin with the very definition of writing. Hunger enjoyed creating 'striking' linguistic neologisms shaped by the function or by the form of particular strokes in Byzantine writing.<sup>13</sup> He coined the term *Perlschrift*, a script he had the opportunity to observe on many occasions in the 11<sup>th</sup> century minuscule library while analysing the roughly 1100 manuscripts of the Viennese collection, which he began to catalogue in those years.<sup>14</sup>

The name derives from the characteristic shape of a 'string of pearls'. The resemblance is due to the presence of two strongly characterising and distinctive aspects that affect the morphological dimension of the signs and their organisation in the graphic chain. These two aspects are as follows: 1. the use of the *omicron* minuscule stroke for letters with a circular body (i. e. *alpha*, the lower part of *epsilon*, *sigma* and *omega*) and for many ligatures (e. g. *epsilon-sigma*, *sigma-tau*, *sigma-pi*, *phi-omicron*); 2. the concatenation of letters with sequences of two or more signs. We will later see

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<sup>9</sup> Hunger 1954.

<sup>10</sup> On bibliography by Herbert Hunger, see Soustal 2001, 1–40.

<sup>11</sup> Relevant references to Latin palaeographic studies are at the beginning of the paper Hunger 1954, 22f.

<sup>12</sup> See Crisci/Degni 2011, 29–33 for a short but up to date framework of the history of Palaeography. On the contrary, several already published works about Latin palaeography widened the goals and methodology of this discipline. It is not a coincidence that Hunger 1954, 22 refers to them clearly in order to explain the assumption of his studies.

<sup>13</sup> See also "Auszeichnungsmajuskel" ('distinctive capital letters'; further bibliography will be quoted below), or "Fettaugen-Mode" ('globules of fat style', on which see Hunger 1972, 105–113).

<sup>14</sup> A volume (Hunger 1953b) about concordances of manuscript markings was published one year before the publication of Hunger 1954.

how this effect is accentuated by a scribe's adherence to a set of rules, a factor that Hunger does not appear to have discerned.

In addition to these strongly distinctive aspects, the script is characterised by its careful avoidance of sharp cornered or angular marks, so that the starting and ending strokes as well as the connecting strokes (like in the *gamma* minuscule) appear smoothed. Among the peculiar traits, Hunger singles out the letter *psilon* in the shape of a very wide 'cup' and compares it to an *psilon* of 'normal' dimensions. Lastly, he identifies the coexistence of various other letters (*delta*, *epsilon*, *theta*, *lambda*, *nu*, *pi* and *sigma*) in both majuscule and minuscule, and provides descriptions of them. He also draws attention to how the ligatures function in both the front and rear positions in order to 'construct' a graphic *continuum*.

From the morphology of the letters, Hunger's focus shifts to the relationship between script and page, namely the *mise en texte*, which requires exacting care to execute. This is a particularly important aspect of *Perlschrift*, indeed its most significant characteristic, analogous to the two elements indicated above that define the graphic composition. The effect of harmony and balance that pages executed in this script convey to the viewer is achieved by carefully balancing the proportions of the various parts – the body and the vertical and oblique strokes – that make up the signs. The effect is also a result of the constant and balanced relationship of the dimensions of the script and the interlinear spacing; Hunger estimated the ratio to be 3:5. This detail will be taken up later, but for now we confirm the significance it plays in defining the character of the script with regards to its development. Indeed, the destabilisation of this balance and the resulting consequences – the lack of homogeneity in the alignment and inconstant relationship between written and non-written space – are among the factors that most visibly characterise the *Perlschrift* in that long phase of its 'vital persistence' that spans the middle of the 11<sup>th</sup> century (as early as the 1040s) and the first few decades of the 12<sup>th</sup> century.

At the end of a long and analytical examination of the script, Hunger goes on to present a series of representative *exempla*, chosen from among the manuscripts of the Greek collection of the National Library of Vienna, and from the dated manuscript collection of Silva and Kirsopp Lake, which were "gute Beispiele der mehr oder weniger groben Annäherung an den Perlschrift-Kanon". He also mentions representative examples from the formative phase dating to the end of the 10<sup>th</sup> century.<sup>15</sup> The selection, as we shall see, aroused doubts in the mind of Jean Irigoin,<sup>16</sup> and indeed not all the cited examples appear to fully meet the criteria. When Hunger's essay was published, Greek palaeography was still without an established analysis methodology, and much of Byzantine script, particularly minuscule, still had to be placed within a historical context, a fact that cannot be discounted. Nevertheless, we do not

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<sup>15</sup> Hunger 1954, 28.

<sup>16</sup> Irigoin 1970/1971, 202.

think that Hunger's broad selection of examples is due to a lack of precise knowledge of the writing styles of the middle Byzantine period. He was fully aware of the distinct differences between pearl script and script that was 'more or less' similar to it, and his selection was made on the basis of the descriptive categories he employed. Rather, it were the categories themselves, reviewed and discussed in the subsequent scholarly literature, which appear to have been occasionally interpreted incorrectly.

Going back several pages with respect to the passage quoted above, the character of the *Perlschrift* is defined as follows: "es handelt sich um eine Form von Stilisierung, die man in der paläographischen Forschung auch als 'Kanon' zu bezeichnen pflegt".<sup>17</sup> Hunger puts *Stilisierung* and *Kanon* on the same level, namely 'stylisation, style' and 'canon'. He does not explain the significance of the categories, opting to refer the reader to a work published several years earlier by the medieval historian and diplomaticist Heinrich Fichtenau.<sup>18</sup> This latter, though he shared the theoretical construction of Ludwig Traube and his many students,<sup>19</sup> who believed that writing is a fundamental part of *Kulturgeschichte*, maintained that, as an individual expression, *Perlschrift* should be studied more closely in relation to *Geistesgeschichte*,<sup>20</sup> and one should therefore look for its methodological fundamentals in psychology and graphology. His view, together with the historicisms of Ludwig Traube,<sup>21</sup> should be considered as a reaction to the technical focus that had characterised the work of Latin palaeography until that moment. Heinrich Fichtenau elaborated descriptive categories, *Stilisierung* and *Kanon*, whose parameters are ill suited for the task of representing the concrete reality of 'practical'<sup>22</sup> palaeography. Yet, the two terms were subsequently employed to do just that in a different setting of studying the history of writing. Fichtenau – and subsequently Hunger – used *Stilisierung* to indicate the specific imprint imparted in book writing, which was performed by an individual or a community of scribes and was characterised by specific elements that the scholar recognised as peculiar to the *Perlschrift*. He employed the term *Kanon* to indicate a model of book writing that had its origin in a style, and that interpreted the character of a given time or of a people;<sup>23</sup> it can therefore represent the common denominator of most scripts that share analogous or similar characteristics.

As he was in agreement with the concepts expressed by Fichtenau, Hunger rightly qualified *Perlschrift* as both a *Stilrichtung* and as a *Kanon*, and he went even further.

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17 Hunger 1954, 23.

18 On descriptive categories, see Fichtenau 1946, 48–51.

19 Just see Fichtenau 1946, 10 and Cherubini/Pratesi 2010, 5. On the description of the scholar and his role in Latin Palaeography we just quote Italian bibliography.

20 Such an idea is fully explained in the first part of the book (Fichtenau 1946, 3–74 in part. 48–74) which includes the following chapters: *Volk und Landschaft, Physiologie des Schreibens, Handhaltung, Koordination und Versteifung, Ornamentik und Buchwesen*.

21 See also some observations by Pasquali 1931, 342–354; Pasquali 1952, 131–149.

22 The expression was coined by Cencetti 1997, 14.

23 Fichtenau 1946, 48–51.

He specified that as a *Kanon* the writing was considered an “ideales Schriftbild, das von verschiedenen Schreibern und verschiedenen Jahrhunderten mehr oder weniger annähernd erreicht werden kann”.<sup>24</sup> Thus, it appears that both the long duration he accords to the use of this script as well as its extension to examples that more or less conform to the ideal model are perfectly in line with this conceptual organisation. In the meantime, analytical tools refined by studies conducted on minuscule scripts and critical reflection of the contents of those same descriptive categories – style<sup>25</sup> and canon<sup>26</sup> – have led scholars to reconsider the issue over time. But these scholars have employed an overlapping terminology without having initiated the necessary conceptual revision. Hunger himself alluded to the substantial divergence of positions on the concept of ‘canon’ in the monograph entitled *Schreiben und Lesen in Byzanz*.<sup>27</sup> While he confirmed that the *Perschrift* falls into the category of *Minuskelkanon*, he recognised, in agreement with the concept of canon formulated by Cavallo, the existence

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24 Fichtenau 1946, 27.

25 The descriptive methodologic paradigm is more different and complicated – but not very far from Fichtenau’s and Hunger’s thought, as it is already accepted by palaeographic studies, according to the theory by Cavallo 1972, 132f. (= Cavallo 2005, 75), who defines as styles “espressioni che – al di là di certi elementi strutturali analoghi che ne giustificano l’appartenenza a una medesima classe – mostrino anche differenziazioni; tuttavia i caratteri più frequentemente ricorrenti e peculiari finiscono con il precisarsi, selezionarsi e organizzarsi in un sistema, adeguandosi sovente a essi anche gli altri elementi scrittori della stessa specie”.

26 One of the first definitions was provided by Cencetti 1997, 55 (“Tali scritture [le canonizzate] si conservano generalmente a lungo, immutate o quasi, perché la canonizzazione delle loro regole non permette innovazioni sostanziali”); such a paradigm, elaborated by Cavallo 1967 and applied to the study of Greek capital scripts, has been summarised in Cavallo 1972, 133 (= Cavallo 2005, 76) as follows: “la ripetizione estesa nel tempo e quindi eccedente la realtà scrittoria che ne è inizialmente all’origine – di uno stile, vale a dire di segni già adattati alla prassi ‘libraria’ e strutturati in un sistema organico all’interno della classe stilistica nella quale si sono enucleati; i canoni perciò sono da considerare tali *a posteriori*, quando si tratti di stili che abbiano finito con il perdere la spontaneità originaria giacché continuano a ripetersi con forme tipologiche sempre identiche, sovente di secolo in secolo, per tutta una serie di ragioni extra-grafiche ed esclusivamente storico-culturali”. Such an attitude, which forces the canonised scripts into fixed patterns leaving apart several phenomena such as the relationship between the centre and periphery, has raised a great deal of criticism (see Irigoin 1970, 73f.; Parsons 1970, 375–380; Wilson 1971, 238–240; Orsini 2013, 7f.), even by Hunger 1988, 102, who underlined the difficulties in fitting exemplary manuscripts into the canon. Recently, Cavallo 2008, 15, studying the term ‘canon’ and its possibilities and uses, has proposed the substitution of such a term with a descriptive pattern, which seems particularly suitable to show the complex dynamics existing in capital scripts: “con *scritture normative* [our italics] si vogliono indicare quelle scritture cui certe caratteristiche imprimono una fisionomia riconoscibile per un arco di tempo più o meno lungo, senza tuttavia inchiodarle ad un canone di regole fisse e immutabili”. Yet, the suitability and efficiency of the new method applied to the description of capital scripts should be discussed in terms of adaptability to patterns based till now on chronological clusters internal to the canon. On this remark see Crisci/Degni 2011, 28–30.

27 Hunger 1988, 102.

of a decadent phase in pearl script, recognisable in the striking deviation from the execution rules displayed in the specimens from the late 11<sup>th</sup> century.<sup>28</sup>

## *Perlschrift* studies after Hunger

Interest in Hunger's studies began in the 1970s. The first scholar to evaluate the work was Jean Irigoien, who verified the specimen collection dated to the 11<sup>th</sup> century during a course at the *École Pratique des Hautes Études* and confirmed the canon nature of the *Perlschrift*. But he concluded his study by calling for an accurate assessment of the attribution to this minuscule of about half the specimens dated between 1030 and 1080. In his concise account, Irigoien did not fail to note the concomitant adoption of the Alexandrian majuscule in the codices in *Perschrift*, and the majuscule's decline as the minuscule gradually fell into disuse.<sup>29</sup>

Jean Irigoien's call went unheeded. In the following years, the writing appeared in what can be considered the initial synthesis of the history of minuscule, presented by Enrica Follieri at the first international conference on Greek palaeography.<sup>30</sup> Her research was accompanied by a survey of the codices in pre-*Perlschrift*<sup>31</sup> and in dated and undated *Perlschrift*-codices of the Vatican Library datable to the 10<sup>th</sup>, 10<sup>th</sup>/11<sup>th</sup> and 11<sup>th</sup> centuries, and she substantially supported Hunger's analysis. The first signs of a contrasting opinion on this script, albeit timid, appeared in the 1980s. In the wake of an article on *scholarly hands* by Nigel Wilson,<sup>32</sup> Greek palaeographers began to realise that the study of library scripts needed to take into account the influence exercised by cursive script and by documents: the reciprocal interactions between production and circulation areas of calligraphic, chancery and cursive scripts would have to be considered when analysing manuscripts.<sup>33</sup> Concerning the *Perlschrift*, this broadening of horizons did not produce any immediate and specific progress. However it did stim-

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**28** Hunger 1988, 102. Further on (p. 103), the scholar wonders, according to Jean Irigoien, if such deviations – the alternation of modules of letters, in particular – is an acceptable reaction in the context of laws describing the book scripts. On the contrary, in his monograph (Hunger 1954, 29), the scholar had considered those deviations in *Perlschrift* of the 11<sup>th</sup> century as proof of a trend common to the calligraphic writings at that time: “Wie sehr auch kalligraphische Handschriften des 11. Jahrhunderts im Duktus von dem Kanon der Perlschrift abweichen können, mögen zwei weitere Beispiele deutlich machen”.

**29** Irigoien 1970/1971, 201–206. On the distinctive use of Alexandrine script in manuscripts written in *Perlschrift*, see Hunger 1977a, 194; 1977b, 206. On this matter see the monograph announced.

**30** Follieri 1997a, 217.

**31** See the discussion below about the meaning to be given to the term ‘pre-*Perlschrift*’ in the context of the shift from *bouletée* to *Perlschrift*.

**32** Wilson 1977a, 221–239.

**33** The idea can already be found in Cencetti 1997, 55.

ulate greater interest in the production of informal writing,<sup>34</sup> and in recent years has resulted in more in-depth analysis of the historical and morphological dynamics of the script. The paper by Paul Canart and Lidia Perria presented at the 2<sup>nd</sup> International Colloquium on Greek Palaeography<sup>35</sup> included a detailed classification of the various trends and of the graphic types dating to the 11<sup>th</sup> and 12<sup>th</sup> centuries; it also provided an opportunity to reflect on the two currents that stimulated the continued development of the script, namely cursive, or common, and calligraphic. In the *Perlschrift* studies following Hunger, there was only one brief reference to the different interpretations of 'canon': the one intended by Hunger, and the one originated by Cencetti that included a fleeting reference to Fichtenau.<sup>36</sup>

Having established the 'canon' nature of *Perlschrift* on the basis of Giorgio Cencetti's theory ("on peut parler d'un 'canon': il s'agit d'un canon plus souple que ceux de la majuscule, mais l'extension dans le temps et dans l'espace du modèle perlée et sa fixité relative par rapport à l'évolution de l'écriture courante autorisent cette appellation"),<sup>37</sup> the two scholars identified in the calligraphic current, the classical *perlée* defined by Hunger that extended to about 1090, as well as two other typologies, namely the "hiératique" *perlée* and a small round vertical one; although these latter typologies share structures, morphologies and basic traits with the classical *perlée*, they can be distinguished from the former due to some slight variations in the forms.<sup>38</sup> Alongside these calligraphic examples, the pearl script is also represented by some semi-cursive expressions of the 11<sup>th</sup>–12<sup>th</sup> centuries such as *Vind. theol. gr.* 63 (1061) and *Vat. gr.* 342 (1088).<sup>39</sup> Perria and Canart grouped these examples among those expressions of semi-cursive *perlée* previously represented by Ephraim's writing and at a more

**34** On the descriptive category, see Cavallo 2000, 220 and Orsini 2006, 549–588.

**35** Canart/Perria 2008, 933–1000 (= Canart/Perria 1991).

**36** Canart/Perria 2008, 950 n. 65 (= Canart/Perria 1991): "H. Hunger n'hésite pas à la [scil. the *Perlschrift*] qualifier de canon [...], mais il prend visiblement le mot dans un sens plus large (en se référant à Fichtenau), puisqu'il l'emploi comme équivalent de 'Stilrichtung'. C'est dans un sens assez large aussi qu'à plusieurs reprises, il à parlé de 'Minuskelkanon', comme du modèle idéal de la minuscule livresque dans son ensemble". According to us, the different opinion of Hunger versus Cencetti and later Cavallo (see p. 178) is marked by the relationship between an ideal pattern and a personal graphic creation outside a schema to which to assign the script, rather than the identity between *Kanon* and *Stilrichtung*, because at the base of the development of a canon there is always a distinctive script with organised peculiarities or specific patterns.

**37** Canart/Perria 2008, 950 (= Canart/Perria 1991).

**38** Canart/Perria 2008, 950 f. (= Canart/Perria 1991). Contrary to Hunger's theory, the two scholars point out that the creation of the classic *perlée* dates back to the mid 10<sup>th</sup> (Athos, Μονή Διονυσίου, 70 dated to the year 955) and to the end of the 10<sup>th</sup> century (*Vat. Urb. gr.* 20 dated to the year 992) respectively; although our investigation does not take into consideration the development of the script in its phase of perfection and later during its spreading and deconstruction, we do not agree with the two scholars because they do not consider the differences characterising the script in its different phases.

**39** Respectively Lake/Lake 1934–1945, V, ms. 205, pl. 353 f.; VIII, ms. 298, pl. 544 f.; Canart/Perria 2008, 966 (= Canart/Perria 1991).



modest level by successive codices such as Athens, Ἐθνικὴ Βιβλιοθήκη τῆς Ἑλλάδος, 2544 (1006?).<sup>40</sup> The relationship between expressions of cursive and of *Perlschrift* is a complex issue and merits further discussion. Regarding the cited specimens, we would like to suggest an alternative interpretation of the data. Manuscripts from both Vienna and the Vatican undoubtedly exhibit specific traits of cursive script. However they are inserted in a graphic structure anchored in classical *perlée*, where the letters are circular and uniform, and the execution is ordered and consistent, aspects that are absent in other manuscripts cited as examples of cursive script. While we do not wish to address at the present time the classification criteria employed by the two scholars to distinguish between classical and semi-cursive *perlée*, it seems that the previously mentioned manuscripts are to be considered, like those in the so called ‘hieratic’ and round common vertical, as evidence of the declining phase of the *Perlschrift* or classical *perlée* in the Komnene era and not as simple late expressions of the cursive correspondent: some manuscripts tend towards the ‘calligraphic’ pole, others gravitate towards the informal or cursive pole.

The article by Paul Canart and Lidia Perria played an important role in the development of the subsequent studies dedicated to the *Perlschrift*. Not only did the two researchers back-date the perfectly executed writing to the last decade of the 10<sup>th</sup> century, they also focused the attention on the cursive current. In the years prior to the Colloquium of Berlin/Wolfenbüttel, Lidia Perria<sup>41</sup> and Giancarlo Prato<sup>42</sup> dedicated several important studies to this current. One of these concerned the production of the copyist Ephraim,<sup>43</sup> rightly mentioned in the cited essay for his script heralding the *Perlschrift*. The successive focus on the cursive style in some important studies – also in relation to the genesis of book writing and the graphic education of the scribes<sup>44</sup> – have made it possible to examine the subject of *Perlschrift*’s origins in greater depth.

Although studies<sup>45</sup> were done on prestigious manuscripts executed in this minuscule in the wake of Hunger’s authoritative work, they did not include any comprehensive analyses or reflections on the denomination and on the nature of the script. Perhaps this was due to the long-standing influence Hunger exercised, or to a sort of scholarly inertia that sometimes follows the publication of a research paper that is considered exhaustive. Thus, the chronological extension of the minuscule and the

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<sup>40</sup> Lake/Lake 1934–1945, I, ms. 34, pl. 61–63 (the manuscript is here incorrectly indicated as “*suppl.* 544”); Canart/Perria 2008, 966 (= Canart/Perria 1991). As the two scholars noted, the dating is difficult because the year and indication of the marginal annotations are not coeval, so the year might be 1032 or 1006 according to Lake/Lake.

<sup>41</sup> Perria 1977/1979, 33–114; 1983, 137–145.

<sup>42</sup> Prato 1994a, 13–29; 14 n. 6 for other bibliography.

<sup>43</sup> *RGK* III 196. On this scribe see also Orsini 2006, 558 n. 44; D’Aiuto 2011, 74 n. 8.

<sup>44</sup> De Gregorio 1995a, 423–448; Cavallo 2000, *passim*; Orsini 2006, *passim*.

<sup>45</sup> Just see Belting/Cavallo 1979; D’Aiuto 2008.

inclusive parameter that Hunger adopted in his choice of examples – both aspects inherent to the concept of ‘*canon*’ – meant that over time, the definition of the *Perlschrift* came to include writing that was generally round or only possessed some of the characteristics indicated by the scholar as specific to this minuscule.<sup>46</sup> At the same time, and perhaps as a reaction to this trend, differing opinions emerged. Some of them were oriented towards categorising the pearl script as a “*generica minuscola dal disegno curvilineo e calligrafico*”, in order to avoid characterising it as a canon, style or type.<sup>47</sup> Others were willing to recognise its existence, but on the condition that its definition be revised.<sup>48</sup> The most recent articles appear to adhere to the latter opinion. In an essay published in the commentary volume belonging to the prestigious new initiative of facsimiles of the well-known manuscript *Vat. gr. 1613*, the so-called ‘*Menologion of Basil*’, Francesco D’Aiuto has questioned the traditional classification and chronology of pearl script. At the same time, he discovered that studies carried out in the last few decades have used the term to describe “*una diffusa e variopinta classe stilistica piuttosto che uno stile strettamente caratterizzato*”.<sup>49</sup>

An opposing stance, but one in accordance with the position of Guglielmo Cavallo, was offered by Daniele Bianconi in his study on manuscript production in the Komnene era at the 7<sup>th</sup> International Colloquium on Greek Palaeography.<sup>50</sup> He addressed the development of the *Perlschrift* in the manuscript production between the second half of the 11<sup>th</sup> century and the 12<sup>th</sup> century. Beginning with the typology illustrated by Paul Canart and Lidia Perria,<sup>51</sup> the scholar critically discussed the definition of canon utilised both by Hunger as well as by Canart and Perria.<sup>52</sup> He supported his argument with a broad range of examples from manuscripts of *Perlschrift*'s calligraphic pole in the Komnene era. Bianconi highlighted the differences between the *Perlschrift* of the well-known *Menologion of Basil II* and the Theodore Psalter, London, British Library, *Addit. 19352*<sup>53</sup> and the manuscripts of the period in question proposed by the two scholars regarding the referenced typologies.<sup>54</sup> In conclusion, he defines the script as “*una generica minuscola libraria cui guardava chiunque volesse scrivere un libro*” of religious content and in parchment; the script shared with other scripts ascribable to “*la generica etichetta di Perlschrift il disegno curvilineo, la rego-*

<sup>46</sup> See Perria 2011, 94.

<sup>47</sup> Cavallo 1991, 21–30.

<sup>48</sup> Iacobini/Perria 1998, 41. In the short allusion to the *Perlschrift*, containing the most reliable summary of the ideology at the base of the birth of such a script, the scholar does not give any solutions but she defines the writing as a style in Perria 2011, 94.

<sup>49</sup> D’Aiuto 2008b, 105.

<sup>50</sup> Bianconi 2010b, 81–90.

<sup>51</sup> Canart/Perria 2008, 949–952 (= Canart/Perria 1991).

<sup>52</sup> It could be an overlapping between the two concepts underlying the term ‘*canon*’ (Bianconi 2010b, 82).

<sup>53</sup> Lake/Lake 1934–1945, II, no. 72, pl. 129 f.; Bianconi 2010b, 83 and n. 25.

<sup>54</sup> See p. 181.

larità delle forme e l'ambizione all'armonia: elementi, però, troppo poco connotanti perché vi si possa incardinare un 'canone' [...]. Più che un'unica *Perlschrift*, insomma, dovette esistere una 'galassia' di *Perlschrift*".<sup>55</sup>

The purpose of this brief *excursus* was to point out the two fundamental issues, not disconnected from each other, that have dominated the studies following the publication of Herbert Hunger's essay. The first concerns the possible misinterpretation of the term 'canon'. The second regards the trend towards partial evaluations of the graphic phenomenon, which questions the traditional definitions and proposes guidelines for a different 'account' of this script's history.

Regarding the first issue, the term has taken on a wide range of meanings over time, and this change has never been adequately discussed. Paul Canart and Lidia Perria's elucidation did not result in a complete revision of Hunger's work. The two scholars, by 'updating' the term proposed by Cencetti, justified the long life of the script, and at the same time, highlighted the changes that took place in the 11<sup>th</sup> and 12<sup>th</sup> centuries. In doing so, they have managed to crack the monolithic nature of Herbert Hunger's account. Although it is not exhaustive, and could not have been otherwise, their study has nevertheless paved the way for further analysis. Despite the partiality of the issues addressed, it has nonetheless brought to light various critical issues and has provided a path for a new beginning.

## An analysis of *Perlschrift*

The complexity of the issues presented in the review of studies dedicated to the *Perlschrift* necessitates studying its history, namely its development, beginning with the manuscripts that certify its origins. This signifies that the writing must be analysed in its own historical-cultural context in light of the books it represents. Only then can we begin to consider establishing a canon, or a fundamental set of rules of the writing. Although comprehensive and analytical script studies are usually published in volumes dedicated to monographic analysis, it seems opportune in this paper to indicate our position regarding the *Perlschrift* as an appropriate conclusion to the previous section, and as a necessary premise to what follows. We are fully aware of the provisional character of the work as well as the absence of concrete references to fully substantiate our arguments.

While analysing manuscripts in preparation for the 8<sup>th</sup> *Colloque International de Paléographie Grecque* (Hamburg) and for a monograph study, we perceived that the script, with reference to the characteristics illustrated by Hunger, was widespread and recurring in a large number of manuscripts. These texts, by expressed or inferred dating, are datable to between the last decade of the 10<sup>th</sup> century and the first three

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<sup>55</sup> Bianconi 2010b, 82f.

decades, or at most the first four, of the 11<sup>th</sup> century and correspond in large measure to the reign of Basil II.<sup>56</sup> The repetitiveness of certain identical traits and graphic forms; the close adherence to identical execution methods<sup>57</sup>, which nonetheless produced unique and original script depending on the copyist's skill; the type of text and the patron's demands are arguments in favour of considering the *Perlschrift* as a style that expressed itself within the indicated chronological limits. The prestige and the importance of certain manuscripts for or requested by the imperial circle, and the correlated and obvious lack of other graphic library typologies that were equally elegant, clear and legible resulted in this script enjoying a prolonged existence, one that lasted until the early decades of the 12<sup>th</sup> century. But at the same time, it experienced a process of slow disintegration that manifested itself in various ways and with uneven results.

Given the introductory nature of this paper, we have decided to examine only a few examples attributable to the formation and definition phase of the script, which span the period between the 960s and the 990s. The monographic study will include a broader and more detailed selection of manuscripts and also a more exhaustive examination of the script. For this reason, the reflections that are proposed at the present time should not be considered definitive.

For the sake of completeness, we begin with a brief description of the script, but without repeating the characteristics of Herbert Hunger's work already touched upon here. We limit ourselves to illustrating some other aspects that have emerged in our examination of a rather large number of still to be classified codices.

Among the most interesting scholarly studies following Herbert Hunger's publication are those devoted to the cursive manuscripts of the 10<sup>th</sup> century. In this regard, the articles dedicated to Ephraim's production and those those later ones dedicated to informal scripts<sup>58</sup> have indicated how, in manuscripts dating to around the middle of the 10<sup>th</sup> century, precisely in Ephraim's codices and in others who were connected to the cursive pole, but not without aspiring to formality, it is possible to identify certain characteristics. These characteristics, purified of non-homogeneity and properly inserted into a calligraphic context consisting of signs of round forms and strokes, would contribute towards configuring *Perlschrift* and distinguishing it in the graphic panorama of middle Byzantine book production. Following in the footsteps of the *bouletée*,<sup>59</sup> the *Perlschrift* was essentially used for sacred or patristic books, very rarely for secular books, which represented a tiny part of this graphic production. The *bouletée*, which of all the Byzantine calligraphic creations was certainly the most elaborate, distinguished itself from the *Perlschrift* by its method of execution, letter design, mor-

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<sup>56</sup> We agree with D'Aiuto 2011, 79 n. 24.

<sup>57</sup> As it will be investigated in the announced book on the *Perlschrift*, now see D'Aiuto 2008b, 100–104.

<sup>58</sup> On bibliography about Ephraim and the informal scripts, see p. 181.

<sup>59</sup> On the script see Irigoin 1977, 191–199; Agati 1992.

phological characteristics and graphic forms.<sup>60</sup> It should be emphasised, however, that both typologies share the almost bilinear design of the script,<sup>61</sup> pursued by monitoring the body proportions and the vertical and oblique ascending and descending strokes. The balanced relationship of these heights is not an end to itself, but a function of the text and of the page. The proportion between the interlinear spacing and the space taken up by text was based on a numerical value that roughly coincided in the two scripts,<sup>62</sup> although this result was obtained using different methods. In the *bouletée*, the proportions of the writing in relationship to the interlinear spacing did not take into account the reference to the ruling line. In the *Perlschrift*, however, this effect is achieved by using the line formed as a reference point; it seems to be expressly constructed by the fusion of the horizontal upper strokes of the letters and the strokes connecting the signs (when the graphic chain allows it), producing the well-known string of pearls pattern. But the *continuum* is executed by overlapping the ruling line, which is ignored or treated with greater freedom in the *bouletée*.<sup>63</sup> The practice is not insignificant given that the ruling line was always planned for in the definition of the space destined for the text, but not always considered by the Byzantine scribes as an effective base for the graphic execution. In the *Perlschrift*, however, it becomes a dynamic element in the writing construction. See for instance, among the many that can be cited, the manuscript Boston, Mass., Congregational Library, Pratt 115<sup>64</sup> (pl. 1a). This closer relationship, to the point of being ‘morphological’, is not without consequences in terms of the aesthetics, since the alternating written and non-written space, planned and prepared (in terms of the materials) to achieve an appearance of constant regularity, functionally contributes to enhancing those aspects of balance and elegance that are already characteristic of the writing.

The recorded exceptions to these rules, which could be defined as norms themselves given the large number of documented graphic expressions that adopt them, are attested to in some late or provincial manuscripts copied in this minuscule or in a script that gravitates in the orbit of this typology, though without completely succeeding to reproduce it. A noteworthy case is the Evangelium of the group ‘Kerasus Gospels’ Ms. M. 748 in the Pierpont Morgan Library, possibly produced in Thessaloniki

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**60** Although a lot of strokes (for example *ypsilon* or *ypsilon* + *sigma*, *sigma* + *sigma* links) were already present in the *bouletée* as it is part of the cursive script.

**61** See Irigoin 1977b, 192; Hunger 1954, 26.

**62** The figure may be 1:3,5 and 1:4 for the *Perlschrift* (Hunger 1954, 26) 1:3 and 1:5 for the *bouletée* (Irigoin 1977b, 192; Agati 1992, 15). They refer to the specimens where the two scripts are executed according to the rules.

**63** The script is written on the line or across it (see the *specimina* in Agati 1992). Because of the lack of specific investigations in the Byzantine and codicological context, see the general considerations by Agati 2009, 199. It will be observed that the device of “ordering” letters on a horizontal line, which is a systematic use of the script itself, has been followed in classic Greek and Byzantine books and chancery in order to obtain clarity, readability and elegance. See Crisci/Degni 2011, 95.

**64** Kavrus-Hoffmann 2012, 69–72, fig. 5.

or in a monastery on Mount Athos, on the date of the solar eclipse in 1133;<sup>65</sup> other examples among the late codices of this script are not lacking. In anticipating one of our research findings, we can affirm that the disregard of this 'norm', together with other aspects, indicates that the script is of an advanced period or of mediocre execution.

The passage from the *bouletée* to the *Perlschrift* illustrates how scripts that originated from different premises in terms of their morphology produced profoundly different solutions. Notwithstanding these diverging approaches, the two scripts do share a common achievement in the round stroke and in that fundamental element that determined the proportion between the signs and its relationship to the written lines of the page. The *bouletée* was a script of great aesthetic importance, but it is certain, and besides it has already been written that "la linea di tendenza è la stessa che presiede alla nascita della 'Perlschrift' [...]. Dunque, anche quando il testimone passa alla 'Perlschrift', i parametri del gusto non cambiano: la piena età Macedone segna il trionfo di un'aspirazione all'armonia e alla regolarità delle forme che si potrebbe definire 'classicggiante', nel senso che riflette un'eterna ricerca di equilibrio, in contrapposizione alla sete di novità, di movimento, di irregolarità, espressa da tante scritture corsive o stilizzate più o meno barocche".<sup>66</sup>

Paul Canart rightly described *Perlschrift* as the most perfect realisation of that smooth model attested to in book script of the 10<sup>th</sup> century combining the characteristics of round script with specific traits of cursive script. This phenomenon, which was well documented starting from the middle of the 10<sup>th</sup> century,<sup>67</sup> can be explained by the continual spread of that current of semi-cursive script – of small dimensions and slightly inclined to the right (*penchée*) – that from the 930s was widespread in documents and eventually in book manuscripts that were to be copied to secular works. In a study conducted on informal script in dated codices, Pasquale Orsini has indicated how this graphic current represents about a third of manuscript production dated to the 10<sup>th</sup> century, with most of the manuscripts dating to the second half of the century.<sup>68</sup> The historical-cultural motivations of this increment have been closely examined, also as regards the following century, and we will not dwell on it at the present time.<sup>69</sup> But the effect of the increase is certainly at the origin of that current or class of round minuscule scripts. According to the variable levels of adherence to the calligraphic pole or the cursive one, expert scribes adapted the speed of the *ductus* to comply with the varying demands, which depending on the typology of the text

<sup>65</sup> Kavirus-Hoffmann 2008a, 285 n. 100, fig. 10. By pointing out an odd usage of the copyist writing such a late and local *Perlschrift*, the scholar aims at a future in-depth investigation. On this codex, see also Kavirus-Hoffmann 2008b, 193–208.

<sup>66</sup> Perria in Iacobini/Perria 1998, 41.

<sup>67</sup> Canart 1980, 27.

<sup>68</sup> Orsini 2006, 568 f.

<sup>69</sup> Cavallo 2000, 221 f.

frequently had a determining constraint. This skill was adequately studied through direct or indirect experimentation. The argument in discussion is supported by a case-study, namely the *Vat. gr. 338* (pl. 1b), containing the book of *Job* with Catena and dated to the second third of the 10<sup>th</sup> century.<sup>70</sup> It is an oriental manuscript, or maybe even from Constantinople, which we can graphically place at the crossroads between *bouletée* and *Perlschrift*.

The copyist, in fact, utilised a *bouletée* for the main text, which Maria Luisa Agati attributes to the ‘*élancée*’ variant of this minuscule.<sup>71</sup> The title and the *προθεορίαι* are in Alexandrian minuscule, and the comments and the *ὑποθέσεις* in cursive inclined to the right, small form and round are in the so-called *penchée* or erudite script. Nevertheless, from f. 5<sup>r</sup> this organic relationship between the main script and the distinctive ones (titles, secondary texts and comments) was gradually abandoned in favour of inclined cursive that began to be utilised, though inconsistently, both for *Job* and for *προθεορίαι*. In this role the script is larger and less inclined with respect to the base script, but it maintains its original fluidity and the cursive *ductus*, which in any case is regularised to obtain a more calligraphic result. An excellent mastery of the different scripts – *bouletée élancée*, Alexandrian and inclined cursive – allowed the copyist to switch from one style to another, without mixing the traits, if not sporadically,<sup>72</sup> although the reasons elude us (personal inclination? need to finish the copy?). The informal style also occupies positions initially intended for other typologies. In any case, it appears that the choice of the different options was not related to graphic skill. The transfer of *Job*’s text to the informal script happens through the adaptation of the cursive to a more controlled *ductus*, but the hand remains within the boundaries of the specific graphic language. In the graphic result of this process the core shape of the *Perlschrift* is correctly reproduced,<sup>73</sup> and it is important that this testimony coexists with the *bouletée* as it enters the final phase of its diffusion. The side-by-side placement of pages in the Vatican codex of cursive script and an attempt to adapt it to a calligraphic version allows us to observe the developmental phase of the script; a rather considerable collection of books from the 960s and the 970s amply documents this evolution. As regards the development phase, it is known that secular book production in the mid-10<sup>th</sup> century destined for the imperial circle and for the intellectual and political élite represented an important precedent. In fact many manuscripts of this period in informal script include traits, graphic forms and executive

<sup>70</sup> De Gregorio 1995a, 429–432. The manuscript, described in Devreesse 1937, 9–11, belonged to the Monastery του Κοκκινόβαφου (Bitinia) according to what is known from the note stating the belonging (f. 5<sup>r</sup>), that Devreesse refers to 13<sup>th</sup> century; Cavallo 2000, 223; De Gregorio 2000a, 141 and n. 280. The scholar compares the cursive script of the codex to the script of the codex Paris, Bibliothèque nationale de France, gr. 704 (ff. 185<sup>v</sup>–191<sup>v</sup>); Kotzabassi 2004, 78–80.

<sup>71</sup> Agati 1992, 234–239, tavv. 154 f.

<sup>72</sup> De Gregorio 1995a, 431.

<sup>73</sup> De Gregorio 1995a, 432.

dynamics that anticipate the formation of the *Perlschrift*. In this period of transition, Ephraim's activity occupies a position of prominence. The copyist, who may or may not have been the learned correspondent of the 'Anonymous of London',<sup>74</sup> must have been a leading figure in a transcription centre of some importance.<sup>75</sup> Although it has not been possible to trace his production to a specific monastic centre, the codicological and textual characteristics of the manuscripts executed in his hand suggest a direct relationship with the most well known monasteries of the capital and with imperial officials, if not the emperor himself.<sup>76</sup>

As regards Ephraim's production, we limit ourselves to mentioning the sole Venetian codex, *Marc. gr. Z.* 201 (coll. 780) of 954<sup>77</sup> as the manuscript closest to the *Perlschrift*,<sup>78</sup> not so much for the design and the script 'construction'<sup>79</sup> as for the single traits and ligatures, which are also present in the other similar manuscripts and can be assimilated to the 'smooth' model with the round design. It is exactly in this terrain that the *Perlschrift* was defined in the 960/970s. The many manuscripts that document this phase include the above-mentioned *Vat. gr.* 338; miscellaneous patristic manuscripts from Vatican City, *Vat. gr.* 450;<sup>80</sup> the Chrysostom manuscripts, *Vat. Rossian*.

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**74** See e. g. Mazzucchi 1978, 268–270; Perria 1977/1979, 34–40.

**75** Although here we are not taking into consideration codicology, we must underline that some kinds of writing lines in Ephraim codices are common to those in *Perlschrift* made by the monk John in the Atonite Monastery of Lavra, which will be discussed below (Irgoin 1959, 197–200).

**76** Irgoin 1959, 181–195. It is known that the transliteration of the first five books of Polybius by Ephraim for the 947 specimen was made in the same codex used by Costantine VII for his *Excerpta historica*. See Mazzucchi 1978, 281 and n. 53 with bibliography.

**77** Subscriptions on ff. 11<sup>v</sup>, 183<sup>v</sup>; Mioni/Formentin 1975, 16–18; Mioni 1981, 313 f.; Perria 1977/1979, 42 n. 3. The codex was quoted by Hunger 1954, 29, as example of the early phase of the round bead-script style.

**78** Perria 1977/1979, 40.

**79** In Ephraim's script, variable in respect to the writing line, the letters appear oval rather than round as they are in the *Perlschrift* and the strokes look sometimes angular. Such a script should be taken into consideration in order to distinguish pre-*Perlschrift* scripts from other cursive scripts. Even if the two groups share several characteristics, they differ in their round and square shape respectively. Records from the latter group, which is quite common at the time we are talking about, are made by hands who are used to the *bouletée*, attracted by cursive script or, on the contrary, cursive hands who tend to a calligraphic pattern. Yet, the presence of *bouletage* and *bouclage* are notable evidences. On this topic we could take away some manuscripts from the dossier of the pre-*Perlschrift*, already quoted as examples of this script by Follieri 1997a, 216 f. nn. 39, 42: *Marc. gr. Z.* 538 (dated to year 905 and written in Alexandrian majuscule with chain commentary written in pre-*bouletée*); *Vat. gr.* 437, 1671, 2254; *Vat. Barb. gr.* 542. Some of these manuscripts are written in informal script with traits from the *bouletée* and the cursive script.

**80** Devreesse 1954, 201–203. The codex, handing down works by Gregorius of Nissa and Johannes Chrysostomus, is composed of the union of two units (ff. 4–34 and 35–406) written by two different, but coeval hands. It is probably composed in the second half of the 10<sup>th</sup> century, according to Lucà 1983, 108, that is before what Devreesse proposed (10<sup>th</sup>/11<sup>th</sup> century).



169 (961);<sup>81</sup> another patristic manuscript from Venice, *Marc. gr. Z. 53* (coll. 454; 968);<sup>82</sup> and from Paris, Bibliothèque nationale de France, *gr. 668* (954)<sup>83</sup> and *gr. 438* (998),<sup>84</sup> which is executed for the most part in a script close to Ephraim's and shares specific traits with the *Perlschrift*. But not all the manuscripts present the traits and round designs of the scripts that would come to be established and widespread starting from the 970; in fact, some of the scripts cease to display the marked angularity that characterises Ephraim's hand or the executive manner that recalls *bouletée*. In addition to the above mentioned manuscripts, others that can be defined for certain aspects as preceding the *Perlschrift* include the secular production attributable to the patronage of Constantine VII (944–959), a fact we think quite significant. An example is the *Sylloge tacticorum* in *Laur. plut. 55,4*,<sup>85</sup> compiled by order of Porphyrogenitus<sup>86</sup> for the purpose of integrating and at the same time celebrating *Tacticae constitutiones* by his father Leo VI (886–912). The manuscript is soberly decorated with elegant corners in blue and gold that encircle the titles of the treatises, and alternate with headings in 'Laubsägestil' in red. The script in a series of round traits (though the circular signs are slightly ovoid on occasion) and little inclined to the right is of a cursive base but rendered calligraphic by the controlled *ductus*. Although the traditional and digital reproductions do not allow us to verify the position with respect to the line, the letters appear arranged in an ordered and regular manner with respect to the upper and middle horizontal strokes (of *epsilon*, *theta*, *xi*, *pi*, *sigma* and *tau*), which are sometimes extended. The joining strokes are created artificially so that letters such as *gamma* and *chi* do not interrupt the continuity of the graphic chain.<sup>87</sup> Some *Perlschrift* strokes, which are part of the common heritage of many cursives of the period, appear in the script. Majuscule letters are not present (with the exception of the usual ones: *theta*, *kappa* and *iota*), nor are certain bridge ligatures of *epsilon* with *xi* and *pi*, which we will see in pearl typology but only sporadically in this manuscript. If graphic choices

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**81** On the codex see p. 192.

**82** Lefort/Cochez 1932, pl. 41; Lake 1934–1945, II, ms. 45, pl. 83, 85; Follieri 1997a, 218 n. 47; Mioni 1981, 75 f., who corrects the Lakes/Lake's (and Follieri's) mistake regarding f. 62 (Lake/Lake II, pl. 82) attributed to *Marc. gr. Z. 53*, but belonging to *Marc. gr. Z. 70*.

**83** Omont 1886a, I 112; Lefort/Cochez 1932, pl. 33; Lake/Lake 1934–1943, IV, ms. 139, pl. 236; *RGK* II 256; Follieri 1997a, 218 and n. 47; Orsini 2006, 554.

**84** Omont 1886a, I 48; Lake/Lake IV, ms. 144, pl. 245–247; Follieri 1997a, 218 n. 47.

**85** Bandini 1768, 218–238; Mazzucchi 1978, *passim*, pl. 2; Bernabò 2011, no. 19 (by G. Breccia), 139 f., pl. 21. A full digital reproduction of this codex is available at: <<http://teca.bmlonline.it>>. There is a thorough bibliography about the codex due to the important commissioner and the fact that it is an archetype of the oldest works transmitted. The codicological elements, such as 32 line-layout, ruled lines, decorations and dimensions, links the manuscript to other codices of historical content. See Irigoín 1958, 178 f.; 1976, 83–87; 1977a, 237–245. For other 32 line-layout manuscripts see Manfredini 2000, 655–664.

**86** Irigoín 1958, 178–181.

**87** Such a device occurs in Ephraim, for example, in *Marc. gr. Z. 201*.

and strokes led to the placement of this codex among the exemplars of a developing *Perlschrift*, the general design of the rectangular form of the script would dissuade any reference to it, directing it more towards the *bouletée*. The hand of this anonymous copyist is comparable to the one that wrote the collection of 14 treatises on military and naval tactics contained in the *Ambr. B 119 sup.* datable to the 950/960.<sup>88</sup> From the dedicatory epigram and from the prologue of one of the treatises, *Naumachica* (ff. 339<sup>r</sup>–342<sup>v</sup>), we learn that the work was written by an anonymous author on behalf of Basil Lekapenos, who commissioned both the book and the entire collection.

The Ambrosian codex, which originally contained more illustrations as the great number of visible traces leads one to believe, is linked to the Laurentian codex in terms of script and decoration. It also features blue and gold frames that encircle the work's titles. The script hangs from the ruling line and does not appear to exhibit substantial differences in its morphological aspect and graphic forms with respect to the script in the Laurentian codex.<sup>89</sup> However the axis is straight and the use of majuscule letters is more frequent (*kappa*, *lambda*, less frequent *eta*, *nu* and *pi*).<sup>90</sup> Among the strokes, we note the use of *epsilon* with superposed curves in posterior ligature<sup>91</sup> and a tall *tau* with a 'loop' ligature that can often be seen at the end of the line, also in the expressions of mature *Perlschrift*.<sup>92</sup> However the '*epsilon* + *xi* bridge' ligature is not present in this manuscript, even though it exists in the *Perlschrift*; here we see the *xi* joined with the upper stroke along the ruling line. A comparison with the Laurentian codex reveals that the manuscripts share many of the graphic characteristics, but also that the Ambrosian codex has a moderate variability in the forms. Although the latter script avoids complicated traits and forms typical of fast writing as it aspired to be calligraphic, namely composed, it was nonetheless classified as an informal script that did not respect a precise graphic model. The difference between the two codices is perceived when considering the design: the Ambrosian script presents a decidedly round design. In terms of the execution, the graphic *continuum* in the Laurentian basically seems to be entrusted to the choices offered by the ligatures, whereas in the Ambrosian it appears to be sustained, where necessary, by extending the horizontal strokes. The Ambrosian script seems to constantly hang from the ruling line, and this attempt to maintain the 'flush' letters probably explains why the forms

<sup>88</sup> Mazzucchi 1978, 282, 292–296; Bevilacqua 2013, 1013–1030.

<sup>89</sup> The analysis is only about the pages reproduced in the previously quoted studies.

<sup>90</sup> Mazzucchi 1978, 276.

<sup>91</sup> This ligature of the epsilon – popular in cursive scripts since the eleventh century – which is recorded in Ephraim and other 10<sup>th</sup> century documents will be allowed in the *Perlschrift* along with other informal traits (for example *rho* with the following letter attested for the first time in Ephraim, among others) and used in other more refined specimens. See Perria 1977/1979, 56, 67, figg. 4, 8a.

<sup>92</sup> Perria 1977/1979, 277. She mentions the ms. *Ambr. F 12 sup.* (gr. 325) as a term of comparison. The manuscript, written in a script similar to the *Perlschrift*, will be analysed by us in the monography.

seem slightly squeezed. This aspect can also be found in other manuscripts of the period, going back to *Perlschrift*'s most antique phase, and can be considered a characteristic element in the development phase of the script.

The figure of Basil *parakoimomenos*, evoked in *Ambr.* B 119 *sup.*, enters the scene once again in another manuscript, so recognised that it is customarily indicated among the most antique exemplars of *Perlschrift*, namely Athos, Μονὴ Διονυσίου 70 (955) (pl. 2a); the codex is called into question, along with others discussed here, and compared with the so-called *Bible* of Niketas.<sup>93</sup> Basil was the illegitimate son of Romanos I Lekapenos. Much has already been written about his prominent role in the political and cultural scene during the reigns of Constantine VII and Basil II, until the latter forced him into exile.<sup>94</sup>

We briefly touch on the biographical aspects of his character so as to mention the sensitivity he displayed towards the arts and letters, partly cultivated by virtue of his family relations and his economic means, which allowed him to actively commission art works and books. From this vantage point, it can be affirmed that Basil was no stranger to that ideal of a cultural focus on books – endorsed and consciously displayed starting with the first Macedonian emperors – which was the cornerstone of the cultural policy of some dynasty members.<sup>95</sup> According to the surviving testimonies, his actions as a patron of literary production were of limited scope, partly because of the political vicissitudes, and were directed towards works of a decidedly practical nature,<sup>96</sup> in keeping with the firm belief that envisioned culture as a means of benefitting the State.<sup>97</sup>

The Athonite manuscript handed down 48 of John Chrysostom's orations and was penned in the year 955 for "Basil patrician and *parakoimomenos* of our holy and Christ loving Emperor, Costantine Porphyrogenitus" by the notary Nikephoros, probably a monk in view of the humble epithets (δοῦλος and ἐλάχιστος) he used to

<sup>93</sup> Belting/Cavallo 1979, 10 f., pl. 39 f. We will discuss this 10<sup>th</sup> century example, divided into three units (*Taur.* B.I.2; *Laur. plut.* 5,9; Copenhagen, Kongelige Bibliothek, GKS 6), and its possible comparisons in a future monograph. A fourth fragment of the *Bible* could be constituted by six pages of the *Bodl. Auct.* T inf. 2.12, originally collocated on the upper margin of the Florentine fragment according to Lowden 1988, 20. On the contrary, according to Hutter 1978, III/1 28 f., the six folios come from a different edition, almost identical to the Niketas' one. On the Florentine fragment see also Bernabò 2011, 175–177, pl. 24.

<sup>94</sup> On the political and cultural life of the probable commissioner of artistic works and manuscripts, see Brokkaar 1972, 199–234; Kahždan/Cutler 1991, I 270; Mazzucchi 1978, 292 f.

<sup>95</sup> See Flusin 2012, 71–84.

<sup>96</sup> We must compare the will of Basil along with the collection about tactics and strategy of *Ambr.* B 112 *sup.* the edition of *De Cerimoniis* by Constantine VII in the manuscript *Lips. gr.* 28 (*Rep.* I 17) which shows interpolations later than the events of the year 963 leading Nikephoros II Phokas to the throne. See Kresten 2000, 474–489; Bevilacqua 2013, 1020.

<sup>97</sup> Mazzucchi 1978, 271–273.

describe himself.<sup>98</sup> The codex bears titles and an incipit in gold Alexandrian majuscule; it has a geometric and phytomorphic decoration around the initial letters and the headpiece in the shape of a door, which represents the first dated example of the so-called 'Blütenblatt Ornamentik'. While we do not know if the copyist also proceeded to decorate the codex, he did however contribute to enhancing its artistic value by occasionally transcribing the text in artistic 'shapes' (crosses, columns with capitals, hourglass, etc.).<sup>99</sup> This taste, which reflects the 'constructive' modes of the *carmina figurata* and *technopaignia* of Late Antiquity, has been documented in manuscripts since the end of the 9th century in the notes and *marginalia*<sup>100</sup>; but it has also been documented since the beginning of the 9th century in the text itself, in less exuberant and fanciful forms for obvious limitations imposed by the page layout, as can be observed in the several manuscripts in pre-*Perlschrift* and in *Perlschrift* so far examined.<sup>101</sup>

This hand recalls pearl script in the round strokes, the balanced relationship between the body and the ascenders and descenders, and several of the ligatures;<sup>102</sup> but it lacks the specific disposition of the graphic *continuum* and the characters are not evenly aligned. Thus, the general impression is that the script, due to the copyist's execution skills or to a *Perlschrift* that has not as yet reached maturity, still finds itself in the initial phases of this typology. Even the Alexandrian majuscule shows some elements of uncertainty; in general, the traits are a bit indefinite as is the insertion of minuscule strokes in the majuscule letters, as can be seen in the *sigma + tau* ligature. At the present state of research, nothing is known about the workplace of the monk and notary Nikephoros. We do not have information regarding his relationship with Basil *parakoimomenos*, which perhaps was less intimate than the one the patron was conjectured to have with the calligrapher Basil of the *Vat. Rossian.* 169.<sup>103</sup> Although

<sup>98</sup> Subscription on f. 416<sup>r</sup>; Lake/Lake III, ms. 87, pl. 154 f.; *Mounth Athos Treasures* 222 f.; Cavallo/Belting 1979, 10 f., pl. 39 f. The co-author of the present paper was not allowed to see the manuscript by the librarian, father Symeon at the Monastery του Διονυσίου, because the manuscript is part of the catalogue project of the codices belonging to the library archive (Cacouros 2000, II 741–745). – Waiting for the microfilm, we base our consideration on the partial reproduction of the codex and on the description available in academic works. Among the latest works, see Bevilacqua 2013, 1016 f.

<sup>99</sup> Bevilacqua 2013, 1016; other pictures in Belting/Cavallo 1979, pl. 39 f.

<sup>100</sup> On the column and cross pattern see Hutter 2010, 97–106, pl. 6,10; the Evangelion Tirana, Archivi Nationali, Fonds 488, Korcë 93 was written in cross shape *bouletée*. See Džurova 2011b, 73–97.

<sup>101</sup> Belting/Cavallo 1979, 21 f.

<sup>102</sup> See the ligature *theta + epsilon + iota* (pl. 2, r. 2). We wait for the microfilm for a closer examination.

<sup>103</sup> According to Kresten's hypothesis (Kresten 2010, 21 f.) based on Basil definition as *παρακοιμώμενος* made by the copyist in the colophon of the Rossian manuscript. This role at the time of the codex composition was given to Joseph Bringa when Basil fell in disgrace in 965. The codex, commissioned by Basil, as we learn from the colophon (f. 381<sup>r</sup>), comes from the monastery of Petra where it had been since the 12<sup>th</sup>–13<sup>th</sup> century according to the palaeographical analysis of the pertinent annotation (De Gregorio 2001, 105–111). See also Lefort/Cochez 1932, pl. 35; Follieri 1997b, 49–66, 206 and no. 3, 218,

the two manuscripts do not seem to originate from the same place, the scripts share some vague elements of analogy in the execution. The Rossian codex is generally more semi-cursive and the bodies of the letters are more ovoid than round, factors that place this codex closer to Ephraim.<sup>104</sup> Regarding the codicological characteristics, we limit ourselves to observing that the rulings in the two codices are different.

The manuscript *Vat. gr. 2155*,<sup>105</sup> another Chrysostom codex (*Homilies 1–44* on the first letter of St. Paul to the Corinthians), considered among the first dated examples of *Perlschrift*, was copied in 981 by the monk Dionysius in the monastery of the Abramites in Constantinople.<sup>106</sup> The script, suspended from the ruling line, is characterised by its fluid design and round strokes, producing a graphic effect that is quite airy on the whole. As regards the *Perlschrift*, the proportional relationship between the body and the vertical and oblique strokes of the letters is respected, and specific strokes and ligatures are present (for example *theta + epsilon*, *epsilon + nu*,<sup>107</sup> *pi + epsilon*, *sigma + epsilon*, *tau + epsilon*, a sideways '8' *omega*, an *ypsilon* in the shape of a full chalice, and a tall *tau* majuscule on the line). However, the forms of the letters are rather rectangular and their alignment suffers from a lack of homogeneity; furthermore, the signs are disjointed from each other. Finally, it can be observed that some traits, for example the majuscule forms of *eta* and *nu* may also be found inside a word, not a frequent occurrence in the expressions of the *Perlschrift* as their traits are less compatible, unlike the corresponding minuscule, to enter into ligature and to form the graphic *continuum*. In light of these initial considerations, we are inclined to define this hand as an example of pearl script in its developmental phase rather than a canonical exemplar of the writing. Another codex considered to perfectly exemplify the *Perlschrift* is the *Vat. Urb. gr. 20*<sup>108</sup> (pl. 2b), which hands down works

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pl. 22 (for the comparison to Ephraim's script); Perria 1977/1979, 74–82; *RGK* III 70. The same copyist may have written the codex *Laur. plut. 9,22* (year 974) and *Kosinitza 16* (year 976) preserved in fragmentary form in the ms. *Brussell. II, 2404*, and the so-called Joshua-roll (*Vat. Pal. gr. 431*), one of the most outstanding works of the so-called 'Macedonian Renaissance' according to Kresten 2010, 17–23. The ms. *Laur. plut. 9,22* (described in Bandini 1764, 426 and digitised at the website <<http://teca.bmlonline.it/>>), hands down some John Chrysostom's *Homilies* written in a more calligraphic hand than in the *Vat. Rossian. 169* characterised by right axis and dominated *ductus*. For Bianconi 2012, 846 n. 69; 2014, 779 n. 41 and Ronconi 2012, 634 f., the copyist of the Joshua-roll is not the same as *Vat. Rossian. 169*.

**104** Both codices were considered graphically similar to Ephraim's hand by Diller 1974, 514–524.

**105** Lefort/Cochez 1932, pl. 54; Lake/Lake VII, ms. 265, pl. 470 f.; Hunger 1954, 28; Follieri 1969, 35–37, pl. 21; Follieri 1997a, 206, n. 3, 217 and n. 42; Barbour 1981, no. 41; Cavallo/Belting 1979, tav. 41a; *RGK* III 178.

**106** Janin 1953, 8–10.

**107** The codex is probably the first dated example of this ligature in the *Perlschrift* (Barbour 1981, 12), but we should note its presence in *Dionysiou 70*.

**108** Stornajolo 1905, 29; Lefort/Cochez 1932, pl. 65; Lake/Lake VII, ms. 267, pl. 473 f.; Hunger 1954, 28; Follieri 1969, tav. 22; Follieri 1997a, 206 n. 3, 217 n. 42; Canart 1980, 30; *RGK* III 147; Cavallo/Belting 1978, 11, tav. 41b. The same hand could have written codex Vatican City, Vatican Apostolic Library, *Urb. gr. 21* too; yet, the data needs deeper investigation.

of John Chrysostom (*Homilies 1–45 on Matthew*), completed by the monk Gregory in the year 992. While the place of copy is not indicated, on palaeographic basis we surmise it was realised in Constantinople.<sup>109</sup> The script, almost devoid of majuscule letters, hangs from the ruling line; it is paired with Alexandrian majuscule, correctly executed in order to distinguish a part of the text, usually the titles and sub-headings, from the main text. The forms are round and small, and slightly flattened, perhaps in an attempt to keep the letters aligned on the line. The letters are joined by extending the upper horizontal strokes, which sometimes appear exaggerated. The characteristic ligatures are present (*epsilon + pi* with a bridge ligature,<sup>110</sup> *tau + epsilon*, *epsilon + sigma*, *sigma + epsilon*, a wide chalice *ypsilon*, *epsilon* with superimposed curves + *lambda*,<sup>111</sup> *epsilon* with superimposed curves + *ny*<sup>112</sup> with a tall majuscule *tau* on the line). Still, it is worth noting the difficulty required to constantly maintain the balanced relationship among the forms. Notwithstanding the flattened nature of the design, we would say that the hand executes a *Perlschrift*, albeit with a certain inexperience, and struggles to respect the norms of the script.

The important group of codices, most of which contain the works of John Chrysostom, copied by the monk John of the Great Lavra monastery, are considered among the oldest manuscripts in *Perlschrift*. John, together with Theophanes of Iviron. He is the first Athonite copyists whose activity is better known thanks to nine surviving manuscripts, almost all dated between 984 and 995. They are mostly preserved in the collection of the Great Lavra library:<sup>113</sup> Athos, Μονὴ Μεγίστης Λαύρας, Δ 70 (984), Δ 76, Δ 75,<sup>114</sup> Α 19<sup>115</sup> (992), Γ 131 (a. 995),<sup>116</sup> Γ 133;<sup>117</sup> Moskva, Gosudarstvennyi Istoricheskiy Muzei, *Syn. gr.* 104 (101 Vl.) (990) (pl. 3), 100 (108 Vlad.) (993);<sup>118</sup> Athens, Ἐθνικὴ Βιβλιοθήκη τῆς Ἑλλάδος, 263 (993).<sup>119</sup> John copied also documents and in this role he drafted an act of donation in 984 on behalf of Athanasios<sup>120</sup> as well as this latter's

**109** According to Irigoien 1958, 193 f., this codex like others written in *Perlschrift* could have been produced in Ephraim's 'scriptorium'.

**110** Pl. 2b, l. 4 left column.

**111** Pl. 2b, l. 5 left column.

**112** Pl. 2b, l. 13 left column.

**113** See Lamberz 1991, 30–32. On manuscripts of John see also Irigoien 1958, 196–200.

**114** Eustratiades/Spyridon Lauriotes 1925, 68; Lake/Lake III, no. 91, pl. 160 f. Lavra Δ 76 e 75 are two tomes of the same book; Lamberz 1991, pl. 1 (Lavra Δ 76).

**115** Eustratiades/Spyridon Lauriotes 1925, 3; Lake/Lake III, no. 92, pl. 162 f.

**116** Eustratiades/Spyridon Lauriotes 1925, 52; Lake/Lake III, no. 93, pl. 164, 166.

**117** Eustratiades/Spyridon Lauriotes 1925, 52; Lamberz 1991, 32, pl. 7. From a codicological and palaeographic point of view, the codex, which doesn't show any marginal annotations, is ascribed to monk John.

**118** Vladimir 1894, respectively 93 f., 102–104; Lamberz 1991, pl. 3 (*Mosquensis* 101 [101 Vl.]); *Mounth Athos Treasures*, 49–51 (with pictures).

**119** Lake/Lake I, no. 33, pl. 59 f., 63.

**120** Lefort/Oikonomdès/Papachryssanthou 1985, 141–151, pl. 18 (ἔγγραφος ἀσφάλεια).

last will, which has not been preserved in its original form.<sup>121</sup> Traces of this dual skill can be recovered in the manuscripts, for example in the *Catena* of Lavra 70, where the copyist utilises a cursive analogous to the one used in the document written by Theophanes. But this manuscript, the only psalter in the group, which is otherwise formed by Chrysostom codices, is also among those that present a script that is more cursive and contains more majuscule letters compared to the others. As we have limited our palaeographic analysis to reproductions that were accessible, the observations that we formulate are preliminary. The material and palaeographic characteristics of the codices of John, as well as of other contemporary copyists or those coming soon after him, have been compared to the production of writing centres in Lavra and in Constantinople.<sup>122</sup> We limit ourselves at present to indicate a Lavra codex written by another monk, also called John, Lavra Δ 86<sup>123</sup> (ff. 9–339), whom Lamberz compared to the previous John on palaeographic account. Although the scholar rightly suggests that the codex has a later dating,<sup>124</sup> we do not believe that period extends to more than a decade. Another figure whose script resembles John's is the anonymous copyist of the *praxapostolos Vat. gr. Pius II 50*, a detail that has already been noted by Irigoin<sup>125</sup> and confirmed in a broader study of several Chrysostom codices by Margherita Losacco.<sup>126</sup> John's hand expresses the fundamental aspects of *Perlschrift* and represents an ideal example of the primitive phase of this script: the letters are in an upright position, or slightly inclined to the right, the forms are round, and the specific strokes are present and fluid. The characters appear to constantly hang from the line, but with respect to the mature examples, it does not present the typical 'string of pearl' pattern. Furthermore, the script appears discontinuous, as if the proportions of the forms were not perfectly balanced, characteristics we have also noticed in the previously mentioned manuscripts.

As regards the place where John learned his skill, Erich Lamberz<sup>127</sup> rightly noted that this could only have taken place in Constantinople, in consideration of the fact that Athanasios officially founded the monastery there in 963.<sup>128</sup> Moreover, the codices expressing the most antique phase of the *Perlschrift* examined up to now can be traced back to the capital, and the manuscripts of John, who was a disciple and follower of Athanasios,<sup>129</sup> represent the continuity of the form from a graphic viewpoint. As we have seen, some of the examined codices were commissioned by Basil

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121 Lamberz 1991, 33.

122 Irigoin 1958, 197; Lamberz, 1991, 34.

123 Eustratiades/Spyridon Lauriotes 1925, 74 f.

124 Lamberz 1991, 32 n. 17.

125 Irigoin 1958, 197; Weitzmann 1996, pl. xxviii (pl. 159).

126 Losacco 2007, 123–142.

127 Lamberz 1991, 34

128 Thomas/Constantinides Hero 2000, I 205–231, also useful for bibliography on *Athanasios Life* and on *typikon*.

129 As the latest note in codex Lavra Δ 86 reports; Lake/Lake III, pl. 163; Lamberz 1991, 33.

Lekapenos, and although he seemed removed from the plan to found the monastery, it is worth remembering, for the purposes of understanding the context in which manuscript production in *Perlschrift* was defined and matured, the close relationship between Athanasios (professor in Constantinople before he worked in Lavra)<sup>130</sup> and emperor Nikephoros Phokas, who assumed the financial burden of the foundation. This latter fought alongside Basil and continued to have a close relation with him until his death.<sup>131</sup>

Although some specific aspects – decorations, codicological and textual characteristics – have not been discussed and have not been considered in a systematic manner, some preliminary conclusions can still be drawn regarding the development and the definition of *Perlschrift* characters. The analysis and the review of several manuscripts traceable to the definition phase of the script have indicated that the characterising aspects of this script were established in the period spanning the 960s and the 990s, and reached maturity in the last decade of the 10<sup>th</sup> century, during the reign of Basil II. This was also the period in which Basil Lekapenos, in the shadow of official policy, generously patronised book publications and works of art. While the manuscripts present a certain lack of homogeneity in the execution, the script appears to respect the fundamental rules of the typology. Nonetheless, the characteristic elements, which established themselves in the last decade of the 10<sup>th</sup> century, still display some uncertainty (it is worth noting that the forms are slightly flattened and that the graphic *continuum* is still not spontaneous). The traits and the basic graphic forms of *Perlschrift* all seem to be represented or, at the very least, still need to be evaluated. In the specific case of Byzantine script, the complete lack of coordinated and organised *scriptoria* with reference graphic indications led to the 'artisanal' nature of the script. Any small differences in the forms, however, were governed by choices that were limited and bound to respect those rules that would ensure fluidity, balance and harmonious proportions to the overall design of the *Perlschrift*.

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**130** On the Life of Athanasios see Thomas/Constantinides Hero 2000, 205–231.

**131** Brokkaar 1972, 218–221.