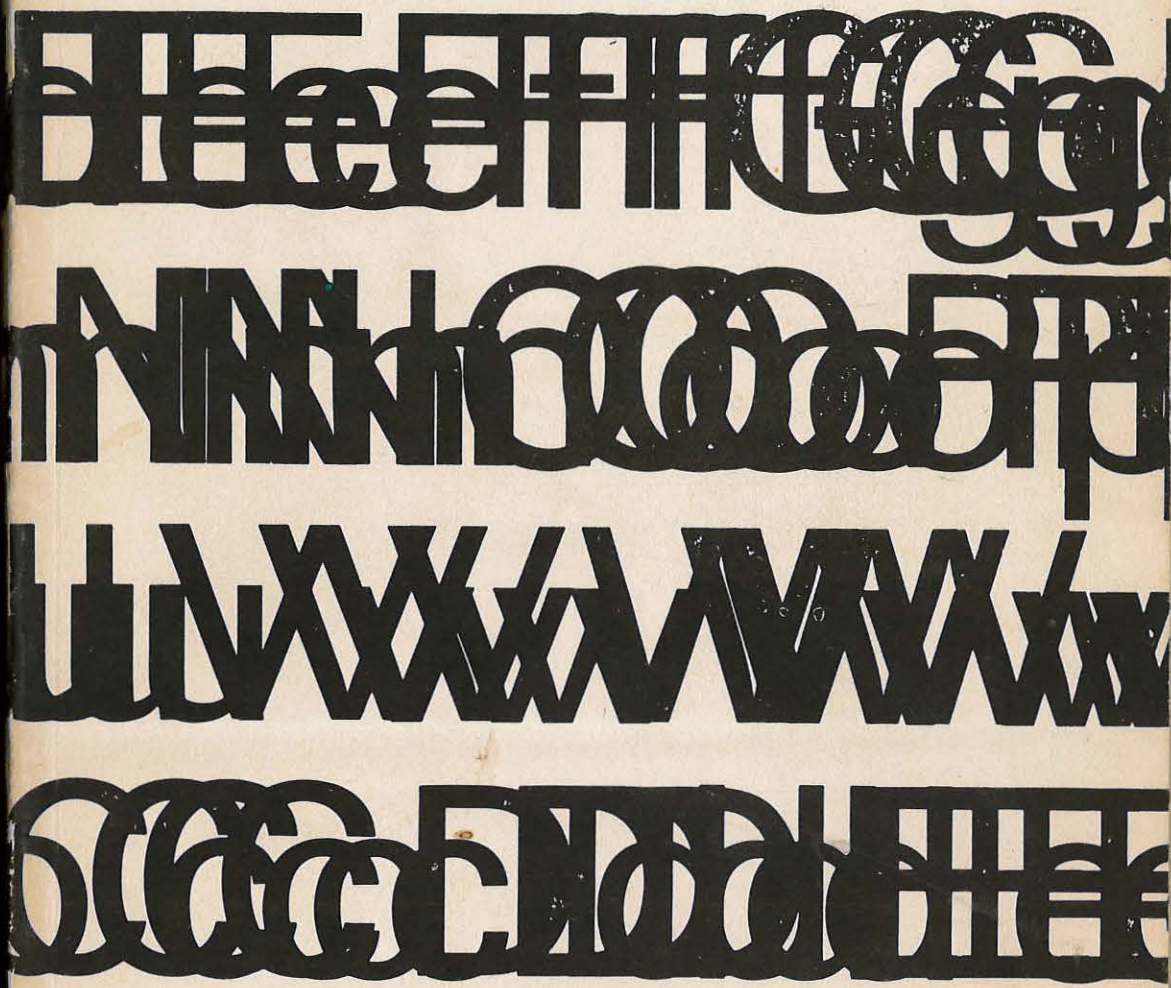


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The Genesis of the Russian *Grazhdanskii Shrift* or Civil Type—Part I

Ivan L. Kaldor

The development and adoption of *grazhdanskii shrift* or civil type by Peter I (1689–1725) is considered as a step with social and cultural implications for the late seventeenth- and early eighteenth-century Russia that go far beyond the impact of any innovation recorded in the general history of printing—save the introduction of printing with moveable type. The paper offers a documented history of the creation of *grazhdanskii shrift*. In an attempt to identify possible models used by the designer of the new type contemporaneous engraved texts with characters of potential prefigurations are examined. Transitional types used by Western typographers in the Tsar's service are identified and analyzed with the same purpose. Finally, the actual creation of the new type—the first modern typeface used in Russia—is traced starting with the search for an episode that may have triggered the idea in Peter I at the turn of the century to the imperial *ukaz* enforcing the use of *grazhdanskii shrift* in all lay works of printing.

One would be tempted to draw an easy parallel between the creation and successful adoption of *grazhdanskii shrift* or civil type by Peter I (1689–1725) on one hand, and the changeover by Western printers from the drab *textura* of Gutenberg to the celebrated roman types of Jenson and the Aldine publications on the other. The intriguing history of the Russian *grazhdanskii shrift* and the unique role this type played within the framework of the socio-cultural reforms of the great innovator, however, would make such an analogy rather unsound, if not outright false.

Thus, the present study will consider the general historical, cultural, and ideological characteristics of the late seventeenth- and early eighteenth-century Russia as the sole backdrop against which the individual events and fragmented data of the history of Russian printing would be viewed and interpreted.

The Inadequacies of Poluustav Types

The printed Russian *poluustav*—like the German *textura*—was a close imitation of the medieval book hand. By the dawn of the eighteenth century it became evident that this archaic type was no longer fit to satisfy the needs of Peter I's dynamic publishing policy:¹ Russian and foreign typographers in the Tsar's service² and the Tsar himself expressed their longings for a "clean print"³ similar to that seen in foreign books.

What was really wrong with the *poluustav* type? In his work on the history of the design of the Russian book, A. A. Sidorov offers an analysis of that type from the point of view of composition and legibility: "The cyrillic type is far too overloaded with accents . . . abbreviations [over-written signs, *titlos*]. Neither *viaz*,⁴ with its solemn decorativeness, nor these over-written elements help legibility. The individual letters of the cyrillic type stop the line and do not merge into a word. . . ."⁵

Thus, the motives of the typographers were obvious: the printed *poluustav* with the abundance of diacritical signs, abbreviations, and over-written characters (Fig. 1) had been a real compositor's nightmare.

The Tsar's reason for calling for a reform of *poluustav* type was mainly ideological. He regarded printing as an important vehicle of transplantation of the spiritual wealth of the West. For Peter I books were tools which helped him to implement his dream of importing European science, technology, and arts to his own country. A man of strong practical sense, he understood that the vehicle had to be brought in concert with the message.

Beside the painful recognition of this irreconcilable clash between form and content, the old *poluustav* type had another connotation for the Tsar. It reminded him of the archaic Church-Slavonic language which, when coupled with the conservative attitude or open hostility of the Orthodox Church, proved to be one of the major obstacles to his reforms. Through the desperation of his translators who worked on the Russian versions of Western books,⁶ he understood that without breaking away from the formal and intellectual heritage of the Middle Ages (i.e., from the *poluustav* type and the Church-Slavonic language) the "window to the West" would never open for his subjects.

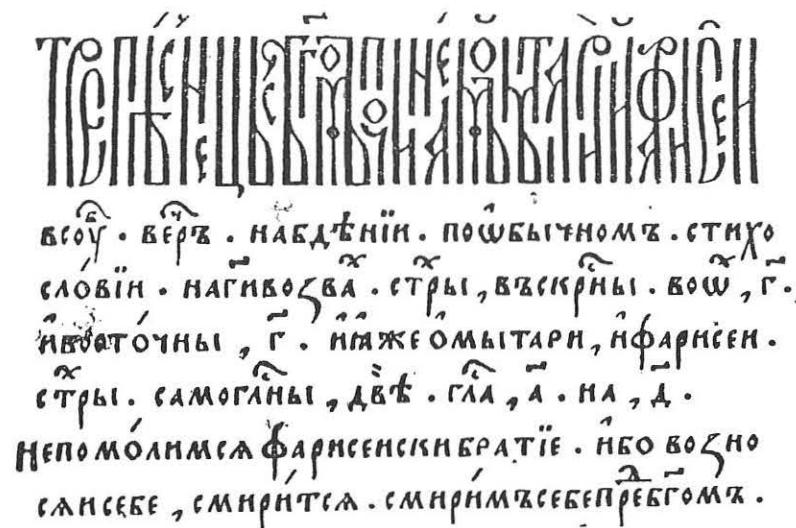


Figure 1. Fragment of a page of the undated (sixteenth-century) *Triodion* (Kar. No. 67; Und. No. 37) illustrating A. A. Sidorov's statement concerning *poluustav* type and printing.

Early Attempts to Develop a Modern Type

The scattered signs of attempts by printers and engravers to introduce modified versions of certain cyrillic characters truly reflect the frustration against which some of these craftsmen worked. Their efforts—with the exception of Slavic printers working abroad under the daily influence of roman type⁷—were not aimed at the design of actual printing types but rather at the esthetic improvement of the general appearance of engraved title pages and inscriptions on maps. Nevertheless, since the attempts seem to have foreshadowed—if not stimulated—the introduction of *grazhdanskii shrift*, some representative cases will be listed and illustrated. Also, in view of the widely differing opinions among scholars as to the real significance of these early experimentations,⁸ a general theory will be developed concerning the motivations and circumstances that brought these "mixed" characters into existence.

It is not without import that one of the earliest examples of the use of modified cyrillic characters is to be found in a theatrical publication, *The Story or Act of the Evangelical Parable of the Prodigal*

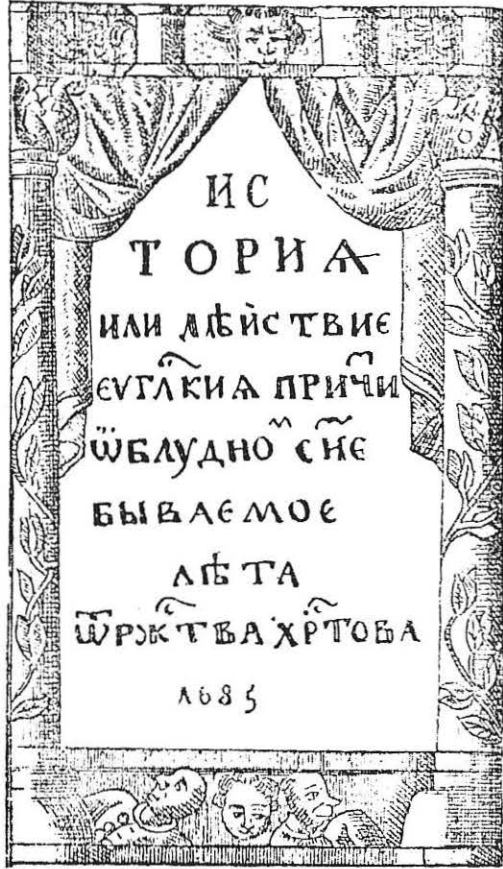
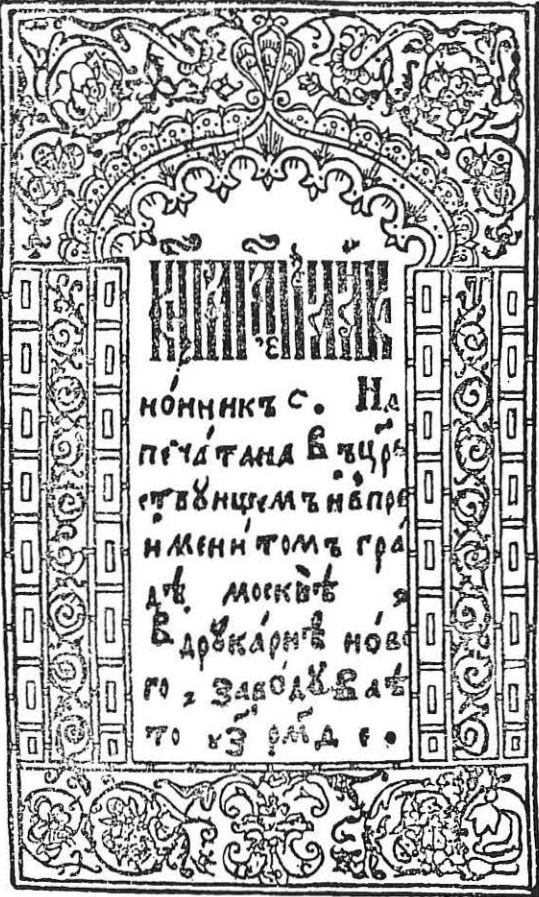


Figure 2. The title pages of (a) [left] a *Book of Canons*, published in Moscow (1641) by V. Burtsev; and of (b) *The Story or Act of the Evangelical Parable of the Prodigal Son*, published by Simeon Polotskii in 1685.



Figure 3. Fragments of Adriaan Schoonebeeck's map of the river Dvina (1701) with text containing, among others, romanized Cyrillic characters.

Son (1685) which was published by Simeon Polotskii. The title page (Fig. 2b) of this Western (Dutch)-style engraved book in A. A. Sidorov's words "forecasts the civil type of Peter I."⁹ There can be no doubt in this case that the engraver's aim was to produce a close imitation of the Dutch original. While performing this task, he engraved illustrations with the characteristics of the Dutch school,¹⁰ preserved the arabic numerals in the date on the title page and also in the pagination, and *modified* certain characters of the cyrillic *poluustav* in order to bring the layout of his title page nearer to the original. The resulting title page is in sharp contrast to that of any publication printed with the traditional *poluustav* type (cf., Figs. 2a and 2b).

In 1701 Adriaan Schoonebeeck (1661–1714),¹¹ a Dutch engraver in the Tsar's service, issued a map of the river Dvina. The text of the map seems to reflect an attempt by the foreign master to interpret Slavic characters in terms of roman type. This led certain

authors¹² to the conclusion that in fact Schoonebeeck's modified characters could be considered as the source of Peter I's civil type. A more careful analysis of the text (Fig. 3) of the map indicates that besides the elements of the so-called "Russian antiqua" or "Amsterdam antiqua" there are also present some Greek, Latin, Russian *poluustav*, and other transitional characters. This mixed evidence, however, does not justify Shitsgal's view¹³ which completely rejects the possibility that the attractive letters on the map which had been made on the Tsar's order could have influenced Peter I in his selection of certain basic lines for the *grazhdanskii shrift*.

P. N. Polevoi and later S. F. Librovich¹⁴ referred to a copper engraving of three cyrillic alphabets by the Dutch engraver Peter Pickaerd or Pickart (1668/69–1732). Both authors considered the third set of characters on the undated and unsigned engraving (Fig. 4) to be the one created by Peter I.

A comparison between the set in question and the specimens of *grazhdanskii shrift* approved by the Tsar indicates that there is indeed a close resemblance between the two alphabets (ѣ, ъ, ѓ, я, А). The sharp differences between the forms of certain other characters (к, л, ф, ц, ш) and the absence of two dots above the letter I in Pickaerd's specimen,¹⁵ however, support the assumption that the third set was not the prototype for the *grazhdanskii shrift*. Moreover, a similar comparison between the characters of the third set and the corresponding characters either of the 1708 version of *grazhdanskii shrift* or Efremov's characters¹⁶ would probably lead to the same results. Thus, Pickaerd's alphabet can be considered only as one of the many interpretations of the new civil type still under development.

There are many other instances of astonishing similarity between engraved characters and the types approved by Peter I for his *grazhdanskii shrift*.¹⁷ However, the cited cases seem to supply adequate evidence for some conclusions concerning the possible impact of earlier attempts on the design of Peter I's new civil type:

a. The phenomena of modified *poluustav* in late seventeenth-century Russian publications may be considered as unsystematic prefigurations. There is no sign of conscious effort on the part of any late seventeenth- or early eighteenth-century printer or



Figure 4. Three sets of Cyrillic characters on an engraved plate in the Moscow Historical Museum. The first set is that of *poluustav* characters, the second set represents a transitional type between *poluustav* and civil type, and the third is considered by certain authors as the prototype of Peter I's *grazhdanskii shrift*. The controversial engraving belongs to the Dashkov collection of the Moscow Historical Museum.

engraver—foreign or Russian—to modify that type as a whole;

b. In the case of Russian engravers, the similarity between their individual modified characters and civil type can be explained by the possible common source of both of those—the roman type (or Dutch antiqua) and the Russian civil hand. The reason for the alterations was an attempt rather to produce the closest possible imitations of the foreign original than to create a new and complete set of characters;

c. The foreign engraver or printer in the Tsar's service as a rule was lacking in adequate knowledge of the Russian language. He relied on the help of non-printer Russians or persons of Slavic origin residing in his country.¹⁸ In more or less complete isolation—a significant part of early Russian printing was done in Amsterdam—he inevitably tended to interpret certain cyrillic characters in terms of the then popular roman type (Fig. 5).

ЦѢИ ТѢБѢ СЛѢЖИМЪ НАХВА
 АЪ И СЛАВѢ ИМЕНЕ
 ТВОЕГѢ СВАТАГѢ
 АМѢНЬ

КОНЕЦЪ

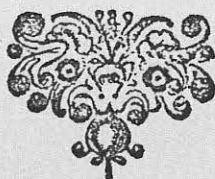


Figure 5.
 Fragment of the last page
 of the Russian translation
 of Leo III's *Tactics*,
 published in Amsterdam
 (1700) by Jan Thesing.
 The word (The End),
 all in capitals,
 clearly shows the influence
 of roman type.
 For full description of
 the work see Und. No. 1274
 or Pek. II, No. 23.

Figure 6.
 Peter I.



In the final analysis, the appearance alone of a printed *poluustav* page should have encouraged a skilled printer with some artistic inclination to try to bring that medieval type up to date. However, neither Russian printers in Moscow nor their Dutch colleagues in Amsterdam or Moscow displayed any conscious effort towards that goal. Thus *the design of printing types remained stagnant for almost a century and a half*. One could put the blame for this on the direct or indirect control over Russian typographical activities by the Orthodox Church which resisted any change in its publications—the only products of the early Russian press—or, on the extremely weak technological background with which Fedorov¹⁹ and his successors had to cope. However, the overwhelming fact that early Russian printing just did not produce any innovators of the caliber of Jenson, Manutius, or Granjon is quite apparent.

Peter I and His Grazhdanskii Shrift

Although a vague search for alternatives to the archaic *poluustav* type started long before, it took the keen spirit of the robust reformer to sense the importance of the change and it was his “extraordinary gift of manipulating men and things”²⁰ that helped him to break away from the old and to pursue the new.

Just exactly what triggered Peter I's interest in this matter is not known. There are plausible indications that he may have been impressed by the easily legible romanized inscriptions of the triumphal arch raised by the Muscovites in 1703, on the occasion of the Tsar's victories in the Northern War.²¹ It is also possible that he may have been influenced by the clarity of the text on Schoonebeeck's map of the Dvina (cf., above) or by the beauty of the Latin text in his favorite bilingual Aesopus volume.²² Whether it was his frustration over seeing the clash between form and content in his cherished project, the *Vedomosti o voennykh i inykh delakh* (the first Russian newspaper), or rather a suggestion about 1705 by “the merchant man Vasilii Kipriianov” to whom he granted the privilege “to print books which are necessary in schools for the students and are useful for the citizens . . . with cleanest composition print as in foreign books. . . .”²³ that started the set of reactions can only be a matter of conjecture.

Peter I undertook the task of reforming the Russian printing type

A final count—based on the above evidence—will show that the Moscow Printing Court prepared 57 medium-size types (among them one defective Ә hardly shows on the specimen sheet and another character is completely missing). Large size types were made only in lower-case version and they were of the design sent by the Tsar for the new primer (Figs. 7 and 9).

This poor showing by Efremov and his companions was a clear setback for Peter I's plan of having lay books printed in Moscow by Russian printers with the "newly invented" type made by Russian craftsmen. Though disappointed, he accepted the challenge and acted accordingly. Knowing that a party of Dutch printers contracted for work and for training of Russian type-cutters and founders had left Amsterdam for Arkhangel'sk, together with 144 pounds of large, 214 pounds of medium, and 233 of small fonts of *grazhdanskii shrift* and with other printing equipment,³⁹ the Tsar decided to suspend work on the new type at the Moscow Printing Court and to wait for the arrival of the esthetically and technically better executed Amsterdam fonts.

By the end of 1707 three skilled Dutch printers (one compositor, one pressman, and one type-founder) and the long awaited Amsterdam fonts (Figs. 8 and 10) were in Moscow. The year-long preparations for the printing of the first Russian book with *grazhdanskii shrift* reached a climax. In his *ukaz* dated January 1, 1708, the Tsar ordered the book *Geometria* to be printed by the Dutch printers and with all three sizes of the imported type. Fedor Polikarpovich Polikarpov-Orlov, the manager of the Moscow Printing Court, was made responsible for the operation.⁴⁰ An entry dated February 29, 1708, and signed by I. A. Musin-Pushkin in the log book of the Printing Court essentially repeated the same instruction.⁴¹

Since the printing of *Geometria* with the new civil type symbolizes the advent of a new era in Russian cultural history, it seems proper to offer a fairly detailed description of the work and to deal briefly with the history of its making.

Geometria slavenski zemlemerie is the shorter title of the Russian version of A. E. Burkhad von Pürkenstein's anonymously published book *Ertz-Hertzogliche Handgriffe des Zirkels und Lineals oder Ausserwählter Anfang zu denen mathematischen Wissenschaften* (Augsburg,



Figure 10. Specimens of the original large and small size characters (lower-case) prepared for Peter I by Dutch craftsmen in Amsterdam (1707).

1690).⁴² The Russian rendering of the original was done by Ia. V. Brius and was completed in June, 1707. The manuscript of the translation which was subsequently forwarded to the printers from the military campaign against the Swedes contains several corrections in Peter I's handwriting.⁴³

Two hundred copies of *Geometria* were printed in quarto between February 17 and March 17, 1708.⁴⁴ A new edition was published in the same year, and a third edition in octavo came out in February, 1709.

A table of contents and an alphabetical subject index were added to the Russian version of the book. The frontispiece is a copper-engraving by K. T. Amling of Munich presenting the scene of Joseph I's ascension to the Hungarian throne. The relatively simple title page (Fig. 11) is dominated by a central axis. Types of various sizes of the same font are used to emphasize the title of the book and the Tsar's name.

The text proper shows a balanced use of the three sizes of characters of the Amsterdam font.

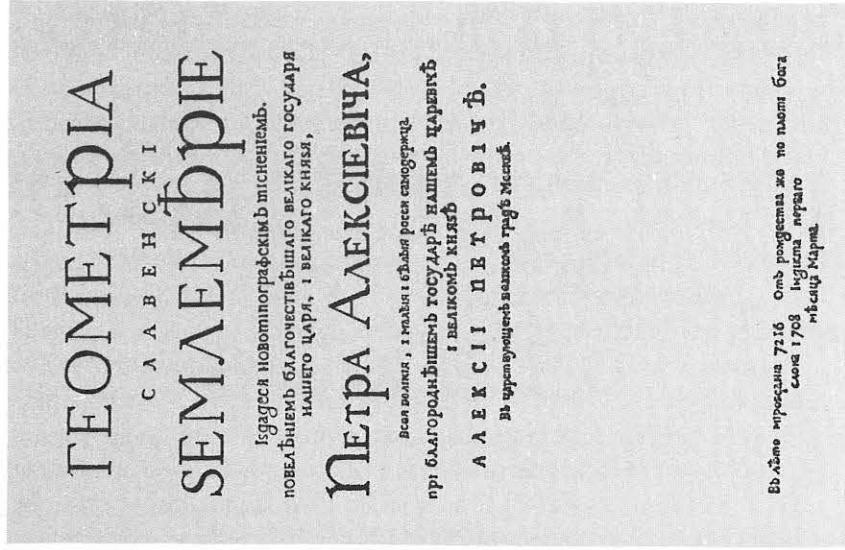
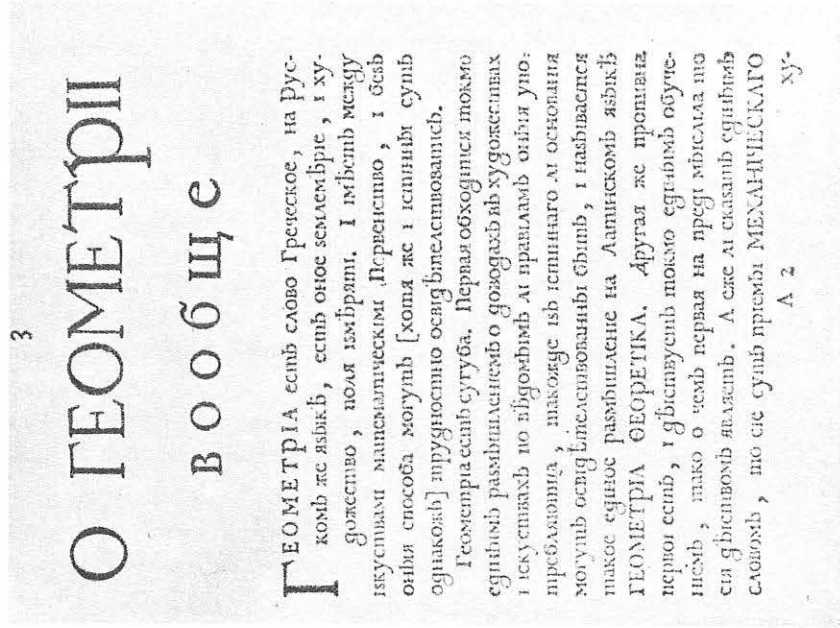


Figure 11. Facsimile reproduction of the title page of *Geometria slavenski zemlemerie*, the first Russian book printed with Peter I's *grazhdanskii shrift* or civil type (1708).

Figure 12. Page from the 1708 edition of *Geometria slavenski zemlemerie* published in Moscow.



Geometria contains 122 full-page illustrations engraved in copper and several woodcut ornaments. The plates were probably ordered from Germany in a restricted number. This, together with the possibility of losses and wear, might account for the existence of several known copies without frontispiece and illustrations.⁴⁵ In the German original the numbering of the plates corresponds to that of the pages with the relevant text.

This results in peculiar gaps in the sequence of numbers (e.g., 8–21, 23, 25, 29, 32–53, etc.).⁴⁶ The Russian edition preserved the plate numbers of the original.

For the new editions of *Geometria* Peter I ordered that the illustrations be remade⁴⁷ and printed on the text pages. This was only partially completed in the second edition. The third edition (1709) has most of the illustrative matter printed with the text and supplied with captions. The engravings for this book in octavo were made by Peter Pickaerdt.⁴⁸

There are certain variations in the title and text of the three known and reported editions of *Geometria*. Furthermore, the text of the second edition—on Peter I's order—was supplied with signs indicating accents.⁴⁹ These were partly omitted in the third edition which at the same time includes some exercises by Ia. V. Brius⁵⁰ and three articles on sun dials probably by the Tsar himself.⁵¹

Finally, the following is a brief summary of bibliographical data related to the first Russian book printed with Peter I's *grazhdanskii shrift*:

The copper-engraved frontispiece, title page, and bastard-title page are followed by 4 unnumbered, 3–233 numbered, and 10 unnumbered pages. There are 122 copper-engraved illustrative plates placed after the text. Page 233 and the last page are decorated with woodcut ornaments of identical design (Fig. 13).

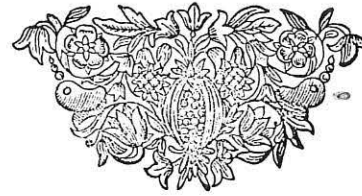


Figure 13. Woodcut ornament used at the Moscow Printing Court during the period 1708–1724 and applied, among others, in the printing of *Geometria slavenski zemlemerie* (1708).

complete set of characters, including the newly made Amsterdam types, printed out and sent to him.⁶⁵

Finally, on January 18, 1710, Peter visited the Moscow Printing Court and gave his blessing to the proof of an alphabet. This alphabet (Fig. 15 [1-5]) was then corrected by him and certain archaic types were deleted. Under the date January 29, 1710, the following instruction was written by the Tsar's hand on the cover of the folder containing the samples: "Historical and manufacturing books to be printed with these types. And those which are crossed out are not to be used [in] the above described books."⁶⁶ A facsimile reproduction of Peter I's note is to be found in Figure 16.

This brief note ended a three-years struggle for the creation of a new, modern Russian type. It also opened the road to the development of the language of Pushkin, Turgenev, and Chekhov. And, above all, it opened the "window to the West" to the subjects of a great Tsar.

NOTE: Part II of the paper will deal with the typographical analysis of *grazhdanskii shrift*. It will also represent an attempt to delineate Peter I's actual contribution to the innovation. One of the salient features of Part II will be the proposal of a hypothesis concerning a possible Western roman model used by the designer of *grazhdanskii shrift*.

Figure 15 (1-5). The following five pages show a booklet containing the final version of *grazhdanskii shrift* corrected and approved by Peter I in his own hand on January 29, 1710. The original booklet is in the Central State Historical Archives in Leningrad.



~~З~~ З з , зѣмля ~~И~~ И и и иже

~~І~~ І і і ~~ї~~ ї і і і ,

~~К~~ К к ~~к~~ к к к к како

~~Л~~ Л л ~~л~~ л л л л ладі

~~М~~ М м ~~м~~ м м м м мислѣте

~~Н~~ Н н ~~н~~ н н н н нашъ

~~О~~ О о ~~о~~ о о ~~о~~ о онъ

~~П~~ П п ~~п~~ п п п п поконъ

~~Р~~ Р р ~~р~~ р р р р рци

~~С~~ С с ~~с~~ с с с слово

~~Т~~ Т т ~~т~~ т т т т тѣрѣ

~~Ѹ~~ Ѹ Ѹ Ѹ Ѹ Ѹ Ѹ Ѹ

~~У~~ У у ~~у~~ у у у у у

~~Ф~~ Ф ф ~~ф~~ ф ф ф фѣртъ

~~Х~~ Х х ~~х~~ х х х х хѣртъ

~~Ѡ~~ Ѡ Ѡ Ѡ omb

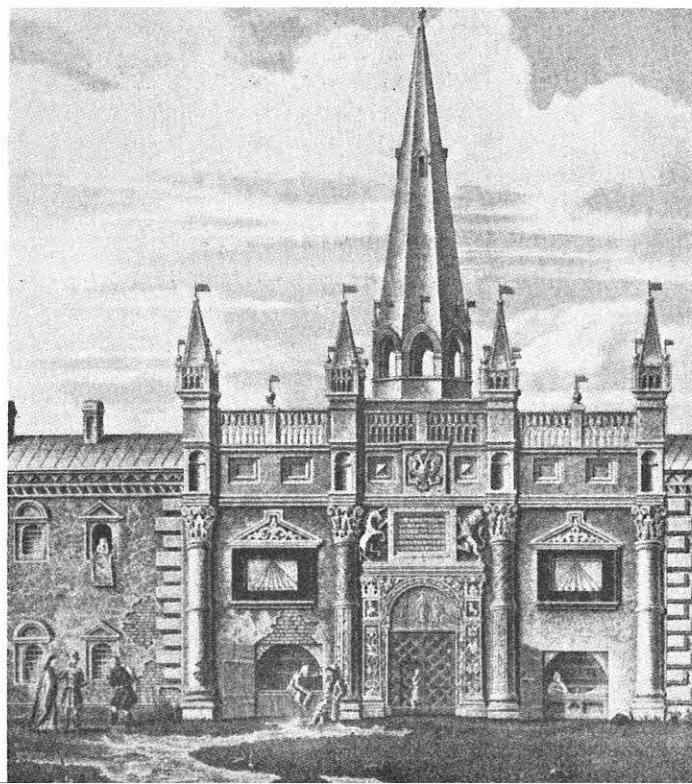
~~Ц~~ Ц ц ~~ц~~ ц ц ц ц цѣ

~~Ч~~ Ч ч ~~ч~~ ч ч ч ч чѣрва

Свѣдѣніе на мѣсто по нѣмъ
 маѣ въ Москвѣ оубоуе званна
 Журналъ Москвитинъ
 алы мурѣіапо ре
 тевоіаіа во мѣ нѣ
 саіаіа нѣ рѣіаіа
 г. по. рѣіаіа

Figure 16. Peter I's handwritten note on the folder of a booklet containing the final version of *grazhdanskii shrift* corrected and approved by him (January 29, 1710).

Figure 17. The Moscow Printing Court in the mid-seventeenth century; an artist's reconstruction by V. E. Rumiantsev.



1. Leningrad. Publichnaia Biblioteka imeni M. E. Saltykova-Shchedrina, *Opisanie izdaniĭ napechatannykh pri Petre I. Svodnyi katalog . . .*, Vol. I: *Opisanie izdaniĭ grazhdanskoi pečati 1708–ianvar' 1725 g.* (Moskva: Izd-vo Akademii nauk SSSR, 1955); Vol. II: *Opisanie izdaniĭ napechatannykh kirillitsei 1689–ianvar' 1725 g.* (Moskva: Izd-vo Akademii nauk SSSR, 1958).

The twin volumes of the above *Description of Editions Printed under Peter I* added a considerable number of titles to those reported by I. I. Golikov (1789) and P. P. Pekarskii (1862). On the basis of these listings the number of known and described editions published during Peter I's reign reaches the remarkable figure of 837.

2. The Tsar heavily relied on the services of Amsterdam printing houses. Through his agents in the Netherlands he recruited Dutch typographers and contracted them for the training of Russian type-cutters and founders.

3. M. M. Bogoslavskii, *Petr I—materialy dlia biografii* (Moskva: Ogiz Gospolitizdat, 1948), IV, 291–295; also:

A. V. Borodin, "Moskovskaia tipografiia i bibliotekari Kipriianovy," *Akademiia nauk SSSR. Institut knigi, dokumenty, pis'ma. Trudy*, V (1936), 59–60. The relevant part of the text of Peter I's order reads: ". . . takovye knigi v shkolakh uchashchimsia potrebnye i vsemu grazhdanstvu poleznye . . . pečatat' . . . nabornym tiseniem samym chistym kak v inozemnykh knigakh . . ." (Dated: May 30, 1705).

4. A combination of abbreviations—mainly of ligatures and pseudo-ligatures—and decorative writing. Shchepkin, in the German translation of his definitive study called it "Ligaturschrift," i.e., ligature writing. Kaldor, in his *Slavic Paleography and Early Russian Printing* (unpublished doctoral dissertation; University of Chicago, 1967) introduced the term "interlaced writing". Early Slavic printers as a rule followed the MS traditions and added the black band of *viaz'* to the initial pages of their chapters.

5. A. A. Sidorov, *Istoriia oformleniia russkoi knigi* (Moskva: Gizlegprom, 1946), p. 132.

6. V. Ia. Adariukov (ed.), *Kniga v Rossii*, Vol. I: *Russkaia kniga ot nachala pis'mennosti do 1800 goda* (Moskva: Gosudarstvennoe izd-vo, 1924) pp. 147–153; and

P. N. Berkov, "Russkaia kniga grazhdanskoi pečati pervoi chetverti XVIII veka," in: Leningrad. Gosudarstvennaia Publichnaia Biblioteka imeni M. E. Saltykova-Shchedrina, *op. cit.*, I, 36–39.

7. As far as Slavic printing abroad is concerned, the strong influence of roman type demonstrated itself much earlier. The signs of borrowings from roman type naturally are most accented in Slavic books printed in sixteenth- and seventeenth-century Rome, Venice, and in the Balkans. P. N. Berkov reports that he found in the *Pravoslavnogo ispovedaniia very* (Rome, 1648) marginal notes printed with modified cyrillic type similar to that used by Kopievskii and Thesing in Amsterdam and later in Moscow.

The title page of F. Skorina's *Bibliia ruska* (Prague: 1517–1519) has several characters which are direct borrowings from the contemporaneous roman type and others which are cyrillic characters modified under the influence of roman type. The same is valid, to a certain extent, for books printed by Fiol in Krakow (1491).

8. V. Ia. Adariukov in his study on Russian books of the eighteenth-century lay

press (*op. cit.*, pp. 140–141) writes: “None of our researchers have yet noticed that the civil type appeared as early as in 1701 though it was not printed but engraved; but its mere appearance indicates that it was, so to say, ‘invented’ already in the year 1701. Thus, on the map of the river Dvina. . . .”

Sidorov pays equal attention to engraved characters in early Russian maps and title pages as possible sources of a new, modified *poluustav* type (*op. cit.*, p. 132).

A. Shitsgal, in his *Russkii grazhdanskii shrift 1708–1958* (Moskva: Gosudarstvennoe izd-vo “Iskusstvo,” 1959) p. 403, n.1, rejects this theory. 9. A. A. Sidorov, *op. cit.*, p. 114.

It should be noted here that there is another work by Simeon Polotskii, *Istoria ili povest’ o Varlaame i Ioasafe* (Moskva: 1681) with a copper-engraved title page designed by Simon Ushakov. The letters in the word “ICTOPIA” on the title page bear strong resemblance to the characters of Peter I’s civil type (Und. No. 977; Kar. II. No. 881; Zer. No. 360).

10. E. Gollerbakh, *Istoriia graviury i litografii v Rossii* (Moskva: Gosudarstvennoe izd-vo, 1923), p. 31.

11. Different sources give variants of spelling of the engraver’s name and there are significant differences in his dates. His name is spelled Shkhonebek, Shanubek, Skhonebek, Schoonebeck and Schoonebeck. The date of his birth varies from 1650 (*Bryan’s Dictionary of Painters and Engravers*) to 1661 (cf., D. Rovinskii’s *Russkie gravery i ikh proizvedeniia*).

The present paper follows the spelling of the engravers’ name as given in U. Thieme (ed.), *Allgemeines Lexikon der bildenden Künstler von der Antike bis zur Gegenwart* (Leipzig: Engelmann, 1907–1950).

The same source gives his dates as 1657 (or 1658) and 1705. Since there are several known works by the engraver which date from the period 1705–1710 (among others two large-size engravings depicting the 1706 Poltava battle) for the date of his birth the year given by Rovinskii, i.e., 1661, will be used and for the date of his death 1714, as given in Nagler’s *Künstler Lexikon*.

12. V. Ia. Adariukov, *op. cit.*, p. 140.

13. A. Shitsgal, *op. cit.*, p. 94.

14. P. N. Polevoi, *Istoriia russkoi slovesnosti s drevneishikh vremen do nashikh dnei* (Sanktpeterburg: A. Marks, 1900), I, 373.

S. F. Librovich, *Istoriia knigi v Rossii* (Moskva, n.p., 1914), II, p. 96.

15. Peter I ordered the use of two dots above the letter “I” (described by the Tsar as “Izhe”) in publications printed with *grazhdanskii shrift* in his letter to Musin-Pushkin of May 8, 1708. Cf., *Pis’ma i bumagi imperatora Petra Velikogo*, VII, Pt. 1, 159.

16. i.e., Mikhail Efremov of the Moscow Printing Court.

17. For further examples of engraved characters which show strong similarity to the letters of the *grazhdanskii shrift*, the reader is referred to Shitsgal’s above cited work and also to *Graficheskaiia osnova russkogo grazhdanskogo shrifta* (Moskva: Gizlegprom, 1947), by the same author.

18. The case of Jan Thesing is a good illustration for this statement. Thesing, a Dutch businessman from Amsterdam, was given the exclusive right to print Russian lay books and maps for the Tsar. Not having adequate knowledge of the Russian language required for the job of translating and editing Russian versions of western books, Thesing hired Il’ia Fedorovich Kopevskii (alias

Kopievich or de hasta Hastenius), an Ukrainian from Poland or a White Russian living in Amsterdam, to act as his associate and to take care of that part of the business. Cf., M. M. Bogoslavskii, *op. cit.*, pp. 294–300.

19. Ivan Fedorov, the first known Moscow printer.

20. K. Waliszewski, *Peter the Great* (London: Heinemann, 1898), p. 147.

21. P. P. Pekarskii, *Nauka i literatura v Rossii pri Petre Velikom*, Vol. II:

(Sanktpeterburg: Tip. Tovarishchestva “Obshchestvennaia Pol’za,” 1862), p. 75, and A. Shitsgal, *Russkii . . .*, p. 255.

22. The bilingual (Latin-Russian) Aesopus volume which was often quoted by Peter I was based on a contemporaneous Dutch school text, *Fabulae Aesopi graece et latine nunc denuo selectae . . .* (Amsterdam: n.p., 1672). The Russian translation was Kopevskii’s work. For full descriptions of the first edition of the work the reader is referred to Und. No. 1277; Kar. No. 1157; Pek. Vol. II, No. 28 and Opis. II, Suppl. I, No. 12.

23. Cf., A. V. Borodin, *loc. cit.*

24. Small town near L’vov, now called Nesterov.

25. D. Rovinskii included the Tsar’s name in his list of Russian engravers (*op. cit.*, p. 261) on the basis of an allegoric scene engraved by Peter I in Amsterdam (1698) under the supervision of Adriaan Schoonebeeck. Copies of the engraving are to be found in the Amsterdam Museum (D. Rovinskii, *loc. cit.*) and in the Museum of Peter the Great of the Academy of Sciences of the USSR (cf., V. Ia. Adariukov, *op. cit.*, p. 164).

26. The reader is referred here to the second part of this paper where, within the framework of a type-by-type analysis of the civil type, this aspect of Peter’s innovation will be discussed in detail.

27. P. N. Berkov, *op. cit.*, II, 24: “It is possible that the idea of the creation of an antiqua-type Russian alphabet really belonged to Peter, but it is difficult to surmise that he drew the ‘specimens’.”

28. *Pis’ma i bumagi imperatora Petra Velikogo* (Moskva: Pervaia gosudarstvennaia tipografiia, 1918), VII/I, 187.

29. See, *loc. cit.*, V, 33–55.

30. See, *loc. cit.*, V, 416–418.

31. *Pis’ma i bumagi . . .*, V, 53–55.

32. See, *loc. cit.*, V, 675; and

N. Grigorovich, “Azbuka s ispravleniiami imperatora Petra Velikogo i ukazom ego o vvedenii v upotreblenie grazhdanskogo shrifta,” *Obshchestvo Liubiteli Drevnei Russkoi Pis’mennosti*, Publication No. 78, Supplement to Article 8 (Sanktpeterburg: OLD, 1877), pp. 5–6.

33. N. Grigorovich, *op. cit.*, pp. 5–7.

34. Dated May 23, 1707; cf., *Pis’ma i bumagi . . .*, V, 271.

35. The original MS is to be found in Moscow, at the Central State Archives of Ancient Documents (Tsentral’nyi Gosudarstvennyi Arkhiv Drevnikh Aktov) among the papers of the Moscow Synodal Printing Shop, No. 1182/2, XLVI, 70 and verso. See A. Shitsgal, *op. cit.*, p. 258.

36. See his letter in *Pis’ma i bumagi . . .*, V, 414.

37. *Ibid.*, V, 313.

38. See *supra*, n. 1.

39. See *Pis’ma i bumagi . . .*, V, 416–417.

40. See P. Stroev, *Opisanie staropechatnykh knig slavianskikh* (Moskva: n.p., 1841).

41. The text of Musin-Pushkin's order is in Moscow, at the Central State Archives of Ancient Documents (Tsentral'nyi Gosudarstvennyi Arkhiv Drevnikh Aktov) among the papers of the Moscow Synodal Printing Shop, No. 1182/2, XLVII, 22. See A. Shitsgal, *op. cit.*, p. 259.
42. See T. Georgi, *Europaisches Bücherlexicon* (Leipzig: n.p., 1742), II, 206; III, 256; IV, 346.
43. The MS of the Russian translation of *Geometria* with Peter I's corrections is in Moscow, in the Central State Archives of Ancient Documents.
44. See *Pis'ma i bumagi . . .*, VII/2, 731.
45. The plates and frontispiece are missing in the copies of the first edition at the Lenin Library and at the Saltykov-Shchedrin State Public Library in Leningrad.
46. The gaps in the numbering of plates made Bychkov think that certain plates were missing in the copy he described. See A. F. Bychkov, *Katalog khраниashchimsia v imp. Publ'chnoi biblioteke izdaniiam, napechatannym grazhdanskim shriftom pri Petre Velikom* (Sanktpeterburg: n.p., 1867), p. 2.
47. See P. P. Pekarskii, *op. cit.*, II, 649; and *Pis'ma i bumagi . . .*, VII, 159, and IX, 50.
48. See Leningrad, Publ'chnaia Biblioteka imeni M. E. Saltykova-Shchedrina, *op. cit.*, I, 75; and also P. P. Pekarskii, *op. cit.*, II, 649.
49. See Peter I's letter to Musin-Pushkin of May 7, 1708.
50. This edition was probably the idea of Ia. V. Brius who repeatedly expressed his interest in gathering exercises to supplement the first edition of *Geometria* or to publish them as a separate volume. See *Pis'ma i bumagi . . .*, VI, 455.
51. See S. E. Fel', "Petrovskaia geometriia," *Institut istorii estestvoznaniia. Trudy.*, IV (1952), 140-155, or for special reference to the above hypothesis, see pp. 151-152.
52. See *Pis'ma i bumagi . . .*, VII/1, 144. The order was sent by the Tsar through A. D. Menshikov.
53. See *Pis'ma i bumagi . . .*, VII/1, 187.
54. *Ibid.*, VIII/a, 937.
55. *Ibid.*, VIII/1, 53.
56. *Ibid.*, VII/1, 159.
57. See *supra*, n. 4.
58. *Ibid.*, IX/1, 50.
59. A. Shitsgal, *op. cit.*, p. 41, refers to an undated *Primer* or rather specimen sheet in the Lenin Library collection.
60. *Ibid.*
61. See *Pis'ma i bumagi . . .*, IX/2, 1228-1229.
62. The Tsar sent his order to Prince M. N. Gagarin on November 8, 1708. See *ibid.*, VIII/1, 289.
63. See the Tsar's letters of October 10, 1708, November 11, 1708, January 4, 1709, and January 16, 1709.
64. See the Tsar's letters of October 10, 1708, October 31, 1708, and November 8, 1708.
65. *Ibid.*, IX/1, 370.
66. The Russian text of the note reads: "Simy litery pechatat at' istoricheskie i manufakturnyia knigi. A kotoryia podcherneny, tekh [v] vyshepisannykh knigakh ne upotrebliat'."

Visual Language from the Verbal Model

Colin Murray Turbayne

Hypothesis: the visible world is a script, presented in alphabetical form, which we have to learn to read. In looking at the ancient problem of how we see, we must first consider the conflict of common sense vs. illusion in our interpretation of what we see. Man learns to decode a complex code of vision, which includes bridging the gulf between a written language and a spoken language (both called, for example, "English") as well as between visuals and tactuals. Seeing is modelled upon reading; painting, sculpture, and photography are modelled on writing—and are forms of writing in visual language.

My hypothesis is roughly defined by a remark made recently by the sculptor, Naum Gabo: "Lines, shapes, forms, color, and movement have a language of their own, but reading takes time. It is not enough to look. You must see, and 'see' means 'read' "[1].* This hypothesis—that *to see* is to *read a language* whose elements are these lines, shapes, forms, color, and movement that Gabo talks about—is a development from some of the ideas of two philologists: Plato, who wrote shortly after the invention of the modern alphabet, and Berkeley, who wrote shortly after the invention of modern optics. They shared the view that the visible world is a script, presented in alphabetical form, which we have to learn to read. This conception I shall develop in order to suggest the main lines of a solution to the ancient problem of how we see.

The Problem

Any adequate solution must be able to accommodate two sorts of facts. It must be able to fit in the very ordinary facts of common

*Numbers in brackets [1] refer to the illustrations.