than 100 names. About 30 place-names appear around the Caspian Sea.

The cartographer had only a vague idea of the hydrographic system in Russia and elsewhere and he has connected together all the rivers of his map. The same succession of towns as on the other map shows the part of Russia crossed by the Volga river through Ortur, Tiffer (an unnamed town, probably Kastroma), Borga, Iormam, Zerdi, Garmi, Zorzano, Pascherti and Sebir. We have here a view of the caravan which follows a course south of the first route, seems to have left the Caspian Sea at Gitarcham (Astrakhan) and proceeds east through Organa, Civitas di Posar, Scar, Sati, Caianfu and Pigina, close to which appears the name Cataio. South-east of the Caspian Sea, a part of Iran is represented with rivers and towns up to the Persian Gulf.

Finally, the north-east corner bears close to the sea,

a long legend entitled "Gog e Magog" which seems to be an arrangement of chapter 74 of the book of Marco Polo, like most of the other legends of this part of Asia.

This map can only be compared with the "Borgia V", a map which may safely be attributed to Conte Freducci, with a date about 1500, and with the Fra Mauro world map, which dates from some fifty years earlier. Having first noted this similarity, it is easier to discover that the writing of our fragment is exactly the same as that of Fra Mauro, although the style of its representation of towns, rivers and other details is different.

From our point of view this similarity indicates Fra Mauro—or the writer of the legends in the Fra Mauro map—as the author of our fragment, with a date very close to 1450.

M. Destombes

The first map printed in Russian

The printing of Russian maps was started by Peter I in Holland.

Departing on his first journey abroad in 1697-1698, he attached to his retinue the grandson of a Scotchman who had settled down in Russia, Jacob Bruce. Bruce was an educated man, familiar with astronomy and cartographic survey. He later became one of the directors of cartographic affairs in Russia. He took part in the Azov campaigns and during them prepared, with the collaboration of Yuriy Mengden, a map of Southern Russia.

Having renewed in Holland his acquaintanceship with the Dutchmen who had lived at Moscow—Witsen, Tessing and others—Peter I, through their mediation, closely studied the matter of cartographic production. One of Tessing's brothers—Jan—established, by Peter's wish, a Russian printing-shop at Amsterdam and received from Peter I, for printing, the map of Southern Russia, which presumably had been brought from Russia, though probably in an unfinished state.

Engaging several specialists, particularly in navigation, to enter his service at Moscow, Peter I also succeeded in winning over a ship's master, Cornelis Cruys, promoting him to the rank of Vice Admiral. Somewhat later, about 1703-1704, with the name of Admiral Cruys is connected the publication, also at Amsterdam, of an atlas of the Don, which was however printed by Danckerts and not by Tessing. It is possible that Tessing had himself begun to prepare this map for printing, because Peter I had promised to grant him a privilege, but, owing to Tessing's death in 1701, the map had been completed by Danckerts.

It is known (1) that Major General Mengden had "surveyed a large part of the Small and Great Russias according to which survey Fieldmarshal General Count Jacob Wil'gel'movich Bruce, Captain in the Azov campaigns, made a landmap, including the Crimean Tartary, which to this very day is found to be trustworthy. It was published at Amsterdam by Jogann Tising (= Tessing) in the Russian and Latin languages".

Mengden was in the military service and fought in the 2nd Crimean campaign, after which he stayed in the

Ukraine at the Court of Requests of Belgorod. He had both the leisure and opportunity for exploring the country and collecting materials. Presumably he was unable to compile a map properly himself, being unfamiliar with the first elements of European cartography, and his map, drawn according to the old Russian methods, had been elaborated for engraving by Bruce. In any case, as we see from the date, the Latin map was published in 1699. For a long time it was known only in the Latin version; it bore no special title, but began with a dedication to Peter I included in a large cartouche stretching from the right-hand top corner, along the Volga, to the Black Sea. Peter's name is followed by an indication that the map represents "Pars Majoris ac Minoris Russiae, Poloniae, Tartariae Ponti Euxini... offert, dedicat ac consector... Johanne Thesing Amstelodamensis cum Previlegio. S.T.Z.M.", and on the artistically executed cartouche: Bothart delineavit, G. V. der Gouwen fecit. In the other corner of the cartouche "A" Mundi Creationis 7207, A° Christi Nati 1699" and the names Bothart and Gouwen-evidently referring to the artists who made the cartouche, because in the left-hand bottom corner is given another name—G. Lambrechts sculpsit. The map measures 485 × 555 mm (1).

⁽¹⁾ Acad. BAYER, Opisanie vsekh sluchaev kasayushchikhsia do Azova. St. Petersburg 1738, fn. on p. 200.

⁽¹⁾ This map is very rare. Tessing's decease in 1701 evidently prevented its circulation. After five years, the plate passed into the possession of J. Loots. Tessing's name was erased and replaced by the name Johannes Loots and the dates 7207 from the Creation of the World and 1699 A.D. were altered to 7211 and 1704 respectively. Impressions of the map, even in this state, are rarely encountered. Afterwards, the plate, still in unworn condition, passed to the publishers Ottens. The latter utilized it after having erased the dedication and all the names-of artist and engraver-and gave it the title "Theatre de la Guerre sur les frontieres entre les deux Grands Monarques de Russie ou l'on a la Petite Tartarie, l'Ukraine..."; the dates were again altered-to 7243 and 1736 respectively and certain new inscriptions were introduced. Ottens' map was probably not included in their atlas, at least the known sheets of it bear no traces of having been attached to an atlas, nor is it to be found in Ottens' atlases.



Mengden and Bruce's map of South Russia printed in Holland 1696 (Collection L. Bagrow, Stockholm).

The above quotation from Bayer (according to him cited from Müller) (1), to the effect that the map had been printed in two languages-Russian and Latin-was for a long time understood by scholars as indicating that it was bilingual, i.e. that the text and legends on the map were engraved in two languages, as was the case with the map published 4 or 5 years later: "Nieuw Pas-kaart Boek Behelsende De Groote Rivier Don or Tanais... door Cornelis Cruys... Amsterdam bey Hendrick Doncker". The map of Mengden and Bruce was so rare (and it still remains so) that it did not happen to come into view until the beginning of this century. Its Latin edition first became known to wider circles in 1910, when it was published by B. Kordt (2). But even then the absence of any Russian names in the map did not arouse any questions. Discussions arose however on account of the omission of the authors' names: had the map been compiled by Mengden, or by Bruce? Or if they had both participated, what had been the role of each of them?

Then M. M. Bogoslovsky made a discovery in the Library of the Academy of Sciences at Leningrad—he found the Russian MS. map of South Russia (3). Bogoslovsky states that there is nothing to prove the existence of a printed Russian edition of this map; evidently Tessing (+1701) did not have time to issue it and, besides, it is not known whether such a printed variant had ever existed. Bruce's rank as Fieldmarshal General in the title of this Russian MS, map shows that it had been produced between 1727 and 1737-between the year in which Bruce was promoted to this rank and his death -- i.e. 27-28 years had passed since Tessing received it at Amsterdam and made a copy of it for Bruce (4). In the next volume of his work, issued a year later, Bogoslovsky (5) expresses the opinion that since this copy of the map is provided with Russian inscriptions which are not given in the Latin edition, Tessing had evidently planned to publish it in 2 variants -Latin and Russian. As the authors of the map he indicates Mengden and Bruce. According to Bogoslovsky, the latter variant—in Russian—is unknown in a printed state and probably never appeared, or else of what use would be a MS. copy of it to Bruce? This copy of the Russian map bears the following Latin title (6): "1696. Tabula geographica partis minores et maioris Russiae delineata post expeditionem Assoviense A. 1696 ab illustriss. comite Jacobo Dan. Bruce tunc temporis militum tribuno, nunc duce sive campi mareschallo. Dimensiones Regionum factae sunt ab ill. D-no de Mengden, nunc ducis vicario sive Generale Maiore. Hanc Tabulam Amstelodami aeri incidi curavit litteris latinis et ruthenicis et dedicavit serenissimo Russiae imperatori Petro I Mercator tunc clarus Johanes Thielsing".

LEBEDEV (1) has, in a recent work, carried out a comparative study of the two examples of the map, i.e. its Latin edition and the Russian MS. He gives in his book thoroughly reduced reproductions of both maps and, in order to facilitate their study, also two sketches of their respective hydrographic nets. These two sketches, drawn by Lebedev himself, are reproduced herewith.

In Lebedev's opinion, the differences in these two maps are insignificant. He finds, however, no satisfactory explanation for the co-existence of the two variants. At the same time he also believes that the Russian variant had never been printed and agrees with Bogoslovsky that there had been no reason for printing it.

Notwithstanding, Mengden and Bruce's map had been printed in its Russian variant, and I had the good luck to find an impression of it at an antiquarian's at Berlin. It is in my collection and I reproduce it here (2). I shall not dwell in detail on this print, but merely indicate that the map printed in Russian has the same limits as the Latin edition, as is seen from the herewith reproduced sketches of the hydrographic nets of the Russian redaction, drawn according to the MS. map at the Academy of Sciences (a). But the MS. copy is curtailed both in the west and in the east. The printed Russian version of the map also has an artistically executed cartouche in its north-eastern corner, though it does not stretch down to the Black Sea, thus permitting the cartographer to represent also the left-hand tributaries of the Don in its lower course, and the rivers Kagal'nik and Kuban' falling into the Azov Sea from the east. In the Latin edition only the mouths of these rivers are represented. The characteristic indication to the effect that vessels intended for navigating on the Black Sea are being built at Voronezh is left out in the Russian variant. The Latin place-names are translated into Russian, e.g. Stagnas mare is designated as Gniloye More; the most striking divergence is found however in the representation of the lower course of the Dnieper: being on the whole conformable to the representation in Beauplan, the Dnieper of the Latin edition, immediately after the cataracts, abruptly turns westward, proceeding to the Black Sea almost along the meridian. In the Russian variant

⁽¹) G. F. Müller, Nachricht von Land- und Seekarten die das russische Reich und die zunächst angrenzenden Länder betreffen. Sammlung Russ. Geschichte 6. St. Pbrg. 1761

⁽²⁾ B. Kordt, Materialy dlia istorii russkoi kartografii. 1910, v. 2. Tab. XLI.

⁽³⁾ M. M. Bogoslovsky. Petr I. Materialy dlia biografii.
V. I. Moscow, 1940. Fn. on p. 399 and reproduction of this MS. map.

⁽⁴⁾ This copy was found among Bruce's papers, which were donated after his death to the Academy of Sciences together with his library.

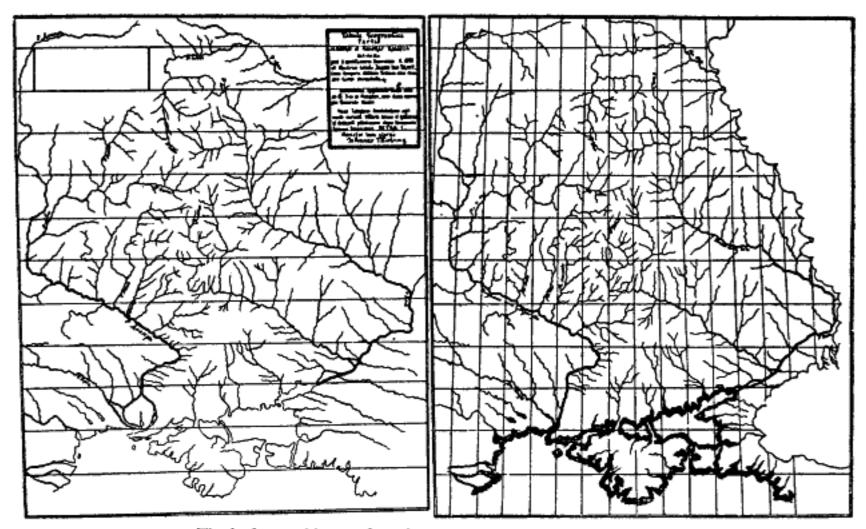
⁽⁵⁾ *Ibid.* II, 1941, fn. on p. 429.

⁽⁶⁾ Given in V. F. GNUCHEVA, Geografichesky Departament Akademii Nauk XVIII veka, Leningrad 1946, p. 18 and 262.

⁽¹) D. M. Lebedev, Geografiya v Rossii Petrovskogo vremeni. Moscow, 1950. 183-191. In this connection it must be stated that the signatures of these two maps have changed places in Lebedev's book in the process of printing.

⁽²⁾ For a reproduction of this map in natural size see L. BAGROW, Anecdota Cartographica I. Die ersten Karten der Ukraine. XVII Jht. Berlin 1935. F°. As this publication is now out of print, Russian readers should note that copies of it must have been available also at Leningrad in the Library of the Academy of Sciences, to which I used to send all my works and publications, as well as to Prof. L. S. Berg, Prof. V. I. Vernadsky and B. Kordt at Kiev.

⁽³⁾ These sketches—copies of those made by Lebedev—are exactly conformable to the original at the Academy, as can be seen by comparing them with the zincographic reproduction of the original on page 187 of the same book by Lebedev. Though the reproduction is not perfect, it is however good enough for this to be affirmed. The reproduction given in Bogoslovski's work (see above fn. 5) is not available outside the U.S.S.R.; this however is of no importance.



The hydrographic nets from both editions — Russian and Latin.

this straight line is divided into two branches forming a large, ovenfork-shaped delta. A similar delta is also found in Witsen's nautical chart of the Black Sea, published by Ottens, and in the map of Ides. Bruce had probably added this representation of the Dnieper delta already at Amsterdam at Witsen's suggestion. The similar representation of the delta in Ides' map—of which Witsen says that he had himself corrected it—supports this assumption. However, a representation of the Dnieper delta similar to that in the Russian variant (1) can also be found in maps of European cartographers, e.g. in the map of Ptolemy's Geography 1507 and 1513 ascribed to Wapowski.

We have three different maps before us (in the order of their discovery): 1) the printed Latin map, 2) the MS. copy of the Russian variant of the same map with a few alterations, and, finally, 3) the printed Russian map. All three show certain divergences, especially in their titles: the printed Russian map has a comparatively small cartouche with an artistic vignette, but no date of publication, or indication of its engraver; it gives however the publisher's name; it was printed at Amsterdam prior to 1701, i.e. before Tessing died. The MS, copy of this map is also without date, but it bears an indication of its authors; it was produced at a much later date, as can be seen from the title of Fieldmarshal preceding Bruce's name, since this promotion was granted him in 1727; the copy was thus made after this date. The title of the map is written inside a plain rectangular frame, the indication of its authors and the dedication are in Latin, but the placenames on the map proper are in Russian. Finally, the third map- printed throughout in Russian without date or any indication of its authors, but bearing the name of Tessing; certain divergences can be observed in the representation of the rivers and the execution of the cartouche of this map.

Thus, these three maps provide us now with answers to the following questions: 1) Who are the authors of the map? and 2) Had a printed Russian edition of the map existed? However, the discovery of the MS. copy of the Russian map rouses a new question: What was the reason for making this copy? Presumably Bruce could find no Latin or Russian impression of the map, but the Russian original had been somewhere preserved and this copy was made from it. As for the language of the title, it was of no importance.

It is of more interest to us to find an explanation of the differences in the Russian and Latin variants of the same map. I presume that, when Peter I and Bruce came to Amsterdam, they brought along the map and gave it to Tessing for engraving. Probably it was not yet quite completed. Then Peter I travelled on to England, leaving Witsen in charge of the map—following up the process of printing and probably completing it too. This may explain the representation of the Dnieper delta in the map. On his return in Amsterdam, Peter found the map ready, but disapproved of it as it failed to show the convergence of the Volga and the Don. This convergence was well known to him: in 1697 Leibnitz had suggested the building of a canal connecting the two rivers in this place (1), and somewhat later a map of this proposed canal had even been included in the Atlas of the Don compiled by Admiral C. Cruys (1703-1704). Peter did not appprove of the Dnieper delta either. He knew of course that no delta existed and had probably also seen the Russian map now preserved at the Bibliothèque du Département Hydrographique de la Marine at Paris, in which the Dnieper

See the reproduction on p. 153.

See Imago Mundi X, 97-98.

runs from the cataracts SW in a straight line and falls into the Black Sea without forming any delta (1). No other map of either the Dnieper or the Volga was at that time available to them, and Peter I suggested Tessing should postpone the correction of the Russian map and engrave only the Latin redaction omitting the delta of the Dnieper while the place occupied by the Volga should be covered up by a continuation of the cartouche, but without any text in it. The Latin version of the map was of more importance to Peter, as he wished to acquaint Europeans with this part of Russia: intensive colonization was going on there, the building of a canal was being discussed, and the question of the Azov and the Russian and Turkish rivalry was at that time actual. Moscow did not need such a map so badly. The Latin map was concluded in 1699. Though the privilege for printing Russian maps had been discussed at Amsterdam and the map of 1699 even bears a reference to it-S.T.Z.M.-in fact it was first granted on 10th February, 1700, and in 1701 Tessing died. The Russian edition of the map thus remained unknown, for it was of no interest in Europe, while the Latin edition, on the contrary, was, as mentioned above, sold by Tessing's successors and became widely diffused, though in a somewhat altered state. The Russian printing materials, i.e. the types, probably also the presses, and the Russian plate of the engraving, were sent to Moscow, but they were seized on their way by the Swedes, who utilized them for printing various propaganda broadsides directed against the Russian Government.

As for the MS. copy of the Russian map made for Bruce,

its production can easily be explained as follows. Presumably no Russian or Latin copy of it was available to Bruce in Russia, as the map had no circulation there. Two such copies are however extant at the Public Library of Leningrad, which seems to indicate that somebody had owned them in Russia. The old Russian MS. original was somewhere discovered, either among Bruce's own papers, or in some other place among documents relating to his journey abroad together with Peter I, and Bruce ordered a copy of it to be made for him. The drawing was perhaps executed by a foreigner and therefore the title is written in Latin, as well as the authors' names with their respective titles at that time.

I am not going to venture here on a detailed examination and comparison of the Russian printed map and its MS. copy found among Bruce's papers, though such a study would of course be very interesting and instructive, especially if the communications map of South Russia 1685 referred to above were also taken into account. I should only like to indicate a recent article dealing again with Mengden and Bruce's map (2). Andreyev, the author of this article, says, in fact, very little on this map, and nothing new, limiting himself to repeating the statements made before him. And there is nothing new to be said unless a thorough comparative study is made. Let us hope that my repeated publication of this map will be noted in Russia and provoke a new study and discussions about it. That my name will remain unmentioned is indifferent to me.

LEO BAGROW

⁽¹⁾ See my article in *Imago Mundi* IX for a reproduction of the whole map and *Imago Mundi* X, p. 94 for a reproduction of the southern course of the Dnieper.

⁽²⁾ A. I. Andreyev, Trudy russkikh geografov i puteshestvennikov XVII-XX vv. po izucheniyu Ukrainy i Ukrainskogo Naroda. Izv. vses. geograf. Obsheb. 86. 1954, 125.