

## PREHISTORIC ANOMALIES IN CARTOGRAPHY

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## ДОІСТОРИЧНІ АНОМАЛІЇ У КАРТОГРАФІЇ

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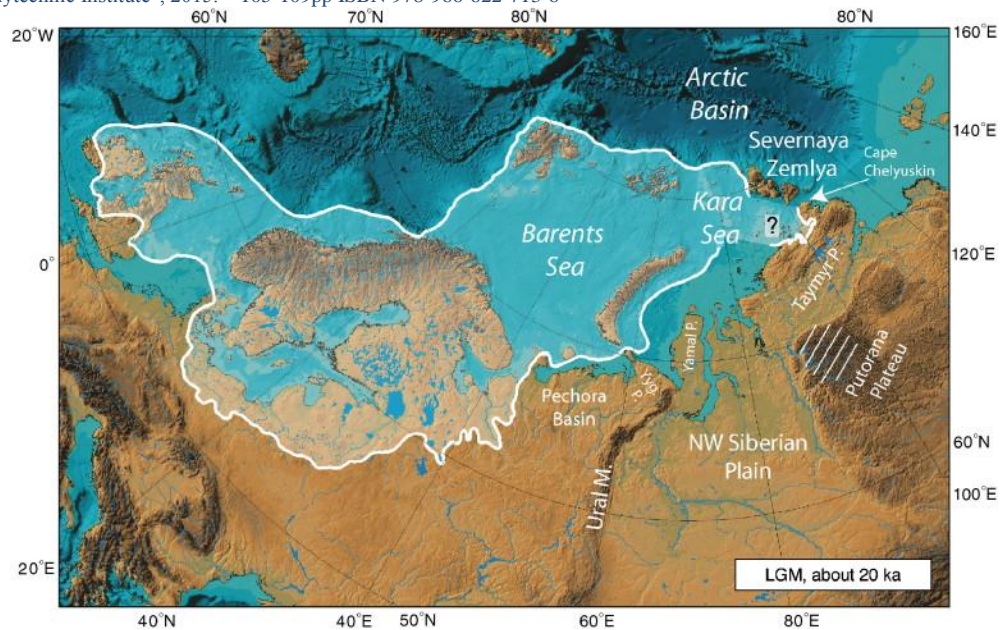
**Abstract:** New finds of anomalous features on medieval maps are described and identified with prehistoric (glacial) realities. These relicts confirm the existence of unknown informational link through more than 10,000 years. The possible explanations are discussed.

**Анотація:** У статті висвітлені нові знахідки аномальних особливостей на середньовічних мапах, які висвітлюють передісторичними (льодовикові) реалії. Такі релікти підтверджують існування невідомого інформаційного сполучення впродовж більш ніж 10000 років. Обговорені можливі пояснення феномену.

**Introduction.** The subject of this report is the depictions of prehistoric realities on geographical maps of historical times. Certainly, such phenomena could be identified as anomalies because the communication of geographical information through many millennia is very problematic. That is why this field of study is ignored in the mainstream history of cartography. Nevertheless, there are amazing parallels between some features of medieval maps and modern paleo-geographical reconstructions. Such finds were firstly analyzed in pioneer studies of Mallery and Hapgood [1]. After the resonance in popular press, the problem rarely was studied professionally. For example, the paleo-ecologist Seybutis [2] and historian Fadeeva [3] identified the Hyperborean mountains of Ptolemy with the edge of the Valdai glaciation 10-75 thousand years ago. Hancock [4] found several sunken lands of the Ice Age on medieval maps. The author [5, 6] published reports on his finds of pre-historical realities on historical maps of Africa and East Europe. This report is a continuation of those studies using new incomings in the author's collection of old map originals.

**The goal and objectives of the study.** Such cartographic anomalies are important as remnants of a lost geographical tradition, which could be associated with unknown cultural achievements in the Ice Age and the early post-glacial period. Medieval mapmakers lacked knowledge about Siberia and Arctic Region. They could fill the gap by using sources of ancient knowledge, unpreserved to our time. Unfortunately, these areas are outside the interests of Western researchers. That is why this study is focused in old maps of the Arctic and Russia. The comparison between modern knowledge on paleo-geography and old geographical maps could reveal new information on cartographic anomalies and conclude on their source.

**Arctic ice lands.** According to modern reconstructions [7], the massive ice sheets controlled the geography of Eurasian northern regions during the Last Glacial Maximum about 20,000 years ago (Fig. 1). There was the ice land in the northern region of the Kara Sea, separating the sea from Arctic Basin. The non-existent land was showed in the same region on some maps up to 1750 at least (Fig. 2), although the correct depictions of Novaya Zemlya co-existed since the times of Barentsz expeditions in 1594-1597.



**Fig.1.** Configuration of Eurasian ice sheets (white curve) during the Last Glacial Maximum 20,000 years ago [7]

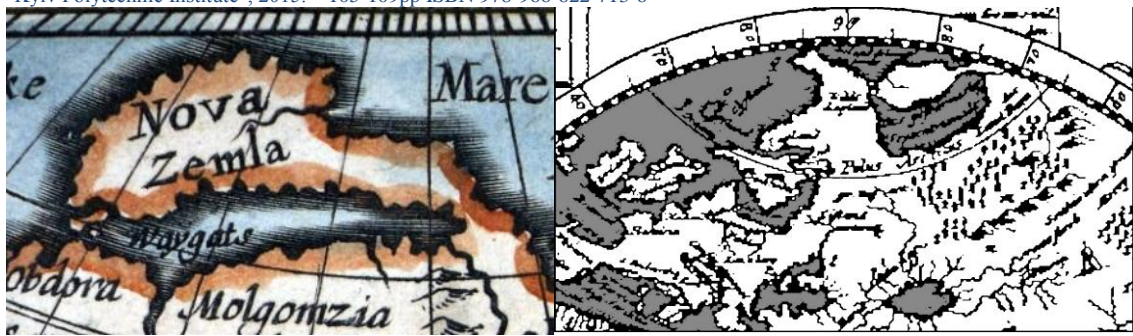


**Fig. 2.** Examples of maps from XVIII c. showing the ice bridge between the Novaya Zemlya and the Taymyr peninsula: Seutter, 1750 (left panel); Schenk, 1708 (right panel)

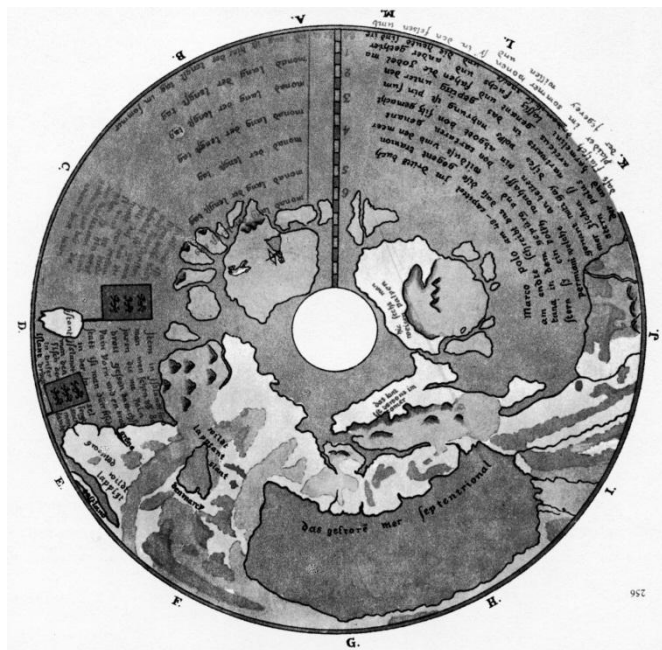
The map inscriptions named the prehistoric bridge between Novaya Zemlya and Taymyr peninsula as «Terre de Jelmer» or «Terra Jelmer», discovered in 1664. It is known that captain Vlamingh sailed round the north-east corner of Novaya Zemlya in 1664, and one, Cornelius Jelmerts (Kok), who was on board of his vessel, saw land in the south-east quarter. For this reason van Nierop first applied the name of Jelmer-land to the Peninsula of the Oby (now Yamal Peninsula) [8]. Apparently, the Yamal Peninsula cannot be the prehistoric ice land. Fortunately, the author has purchased the Bertij's map 1616 [9], which shows the same ice bridge but long before its false discovery in 1664 (Fig. 3, left panel). Precursors of the anomalous depiction of Kara Sea are tracked up to the first known globe of Martin Behaim, 1492 (Fig. 3, right panel). The unknown northern land from the Spitsbergen region to the Asian peninsula (Fig. 3 and 4) could be identified as the northern part of the ice sheet in Fig. 1.

Figure 5 shows the part of the world map, which was drawn by Johann Ruysch and inserted in Ptolemy's "Geography" (Rome, 1507 and 1508 [11]). The polar region of the map clearly shows the non-existing land between the Svalbard ("Hyperborei Europe") and the Scandinavian Peninsula. Such connection existed as a part of the Scandinavian Ice Sheet more than 10,000 years ago. In fact, the western coast of the Scandinavia-Svalbard pseudo-land correlates with the border of ice sheet in Fig. 1.





**Fig. 3.** Pre-1664 maps of the Kara Sea anomaly: Bertij, 1616 (left panel [9, p. 694]); Behaim, 1492 (right panel)



**Fig. 4.** Northern polar region on the Behaim's globe (1492 [10, p. 214]) depicts the inland «frozen sea» (below) at the meridian of the Kara Sea and the probable ice lands to the north



**Fig. 5.** The non-existing bridge between the northern limit of the Scandinavian Peninsula (left-bottom arrow) and the Svalbard (right-upper arrow) on the Ruysch's map 1507 [11].

**White Sea-Caspian channel.** The fauna of the Caspian Sea includes the invaders from an arctic sea. For example, the genetic studies revealed the relationship between the Caspian seals (*Phoca caspica*) and the Arctic ringed seal (*Phoca hispida*) [12]. Moreover, it was shown that mitochondrial gene demonstrates a close affinity between the shrimp of the Caspian Sea (*Gammaracanthus caspius*) and the *Gammaracanthus aestuariorum* of the White Sea area [13]. Biologists consider such arctic invasions as glacial events. Hence, there was a prehistoric channel between the Caspian and the White seas. The recently purchased Bucelin’s map (1658) clearly depicts of the connection between the Caspian Sea and the White Sea via the Volga River (Fig. 6).



**Fig. 6.** Prehistoric White Sea-Caspian channel on the medieval map (Bucelin, 1658) [14]



**Fig. 7.** Reconstruction of the Posidonius’s map (Bertius 1628 [17])

In fact, Bucelin copied the Blaeu’s map of 1644 [15]. Some geologists [16] considered similar double connection of the Volga with the White See through glacial lakes and the rivers (e.g., Onega River). The belief in the Caspian-Arctic channel can be tracked up to pre-Ptolemy times. For examples, Posidonius (II BC [17]) connected the Caspian Sea and the Arctic Ocean through a narrow channel (Fig. 7). However, Ptolemy and his numerous followers correctly denied any historical Caspian-Arctic contact.



**Conclusions.** Therefore, the parallels exist between certain features of old geographic maps and glacial realities of prehistoric geography. The revealed new examples of such paleogeographic relicts confirm the existence of unknown informational link through more than 10,000 years. By definition, the history begins with written records in Mesopotamia and Egypt about 5,000 years ago. However, the archaeological finds of the Dispilio Tablets (Greece [18]) and Tărtăria tablets (Romania [19]), which have been carbon dated to the 7300 yr BP, are recent arguments for the earliest known Neolithic writings. Hence, the found glacial relicts on the medieval maps hint on more ancient origin of writing. Another way of the transmission of geographic information is an oral tradition. However, the known examples of such tales (e.g., Odyssey, Scandinavian sagas) have too unclear association with real geography, enabling ambiguous identifications. In any case, the glacial relicts on medieval maps represent the fact of exploration of arctic deserts long before historical pioneers. Moreover, there were some contacts of arctic peoples with ancient civilizations. For example, the Ancient Egypt was known with a polar bear («one immense white bear» [20, p. 199]; «l'ours blanc» [21, p. 75]) and dwarf mammoths [22], which lived in the *Wrangel Island in the Chukchi Sea up to 4,000 yr BP* [23]. Therefore, some geographical information together with exotic animals could be transmitted from the Arctic explorers to ancient civilizations.

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