

# *The Turks on Medieval Arab Maps (9th–10th centuries)*

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*The Arab medieval maps depict various kinds of Turks. Muḥammad al-Khwārizmī mentioned the Turks and Toguzguz as the population of two Scythias of Ptolemy – the inner and outer sides of the mountain Imaus. However, al-Khwārizmī did not associate the location of Scythia (As-kutiya) with this mountain. The circular world maps of al-Balkhī, al-Iṣṭakhrī and Ibn Ḥawqal show the various Turk peoples around Caspian and Aral Seas.*

Arab maps of the 9th–10th centuries that have survived to the present day tend to be a very informative source in demonstrating the locations of the Turkic peoples in the Central Eurasia.

Claudius Ptolemy (2nd century) was an unchallenged authority for Arab scientists. He compiled a map of the world based on geographic coordinates. In his “Guide to Geography”, he demonstrated the need for practicing the cartographic approach in order to describe the Earth and to develop the system of coordinates.<sup>2</sup>

In the first third of the 9th century, observatories were built in the Arab Caliphate, where astronomical observations were undertaken and the data obtained from ancient scientists were verified. In Baghdad’s *Bayt al-Hiqma*, scientists from different countries of the world translated scientific works from different languages into Arabic and made astronomical, mathematical and geographic calculations.<sup>3</sup> Muḥammad ibn Mūsā al-Khwārizmī (c. 783–c. 850)

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<sup>2</sup> O. Neugebauer, *A History of Ancient Mathematical Astronomy*. Berlin–Heidelberg–New York 1975, 333–336 et passim; E. Honigmann, *Die sieben Klimata und die πόλεις ἐπισημοί*. Heidelberg 1929, 110–117 et passim, 156 et passim; D. A. Shcheglov, “Sistema semi klimatov Ptolemeia i geographija Eratosfena,” In: *Vestnik drevnei istorii*. 2005. № 3, 243–265.

<sup>3</sup> G. R. Tibbets, “The Beginnings of a Cartographical Tradition,” In: *The History of Cartography*. Vol. II. Part. 1. *Cartography in the traditional Islamic and South Asian societies*. Ed. J. B. Harley, D. Woodward, Chicago–London 1993, 104–105.

worked at the court of the caliph al-Ma'mūn (813–833)<sup>4</sup> where scientists compiled the “Verified al-Ma'mūn tables” with the coordinates of the contemporary inhabited areas. Al-Khwārizmī participated in this work as well. Based on Ptolemy's “Guide to Geography”, he created his book “The Image of the Earth”, where he defined the location of toponyms, hydronyms etc. inside seven “climates” from the West to the East, calculating the coordinates in accordance with the existing data on the day length and the solstice.

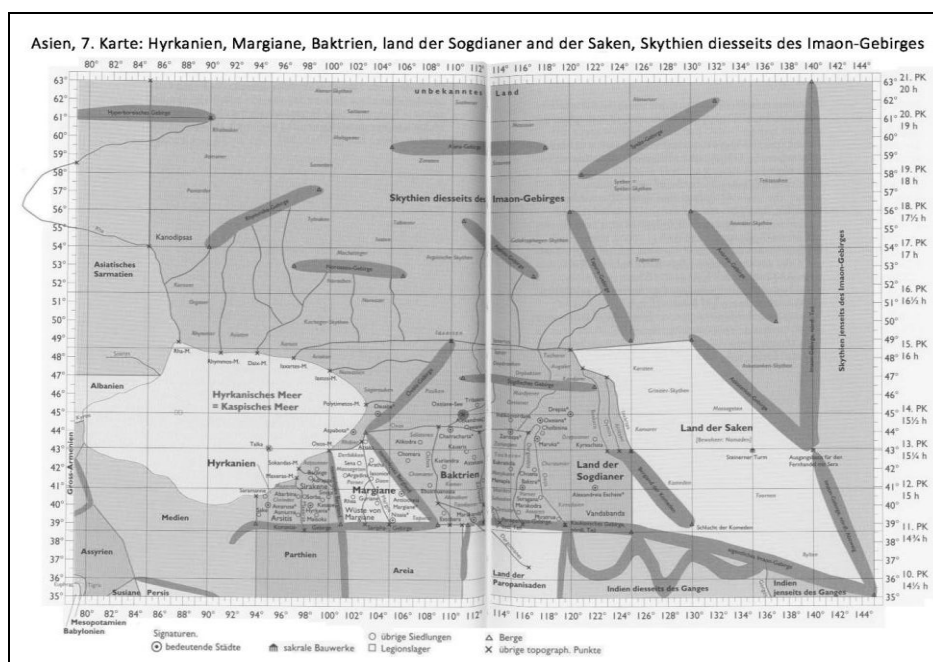
Al-Khwārizmī mainly used the names taken from the book of Ptolemy, but often in a distorted or Arabized form. He named one chapter of “The Image of the Earth” “Places describing the borders of lands”; this chapter contained the coordinates of the described lands' centers. The names of the lands were based on Ptolemy's data, but they were changed in accordance with new materials that al-Khwārizmī used. Among others, we can find the names having analogues in Ptolemy's materials: Germany (*Irmaniya*), Sarmatia, Scythia (*Isquthiya*). There were two Scythias in his work: “The region of *Isquthija* is the land of *al-Turks*, and the region of *Isquthija* is the land of *al-Tughuzghuz*.” Coordinates of the center of both lands are given. Both names correspond to Ptolemy's two lands: Σκυθία ἡ ἐντὸς Ἰμαίου ὄρους (Ptol. VI, 14, 9), i.e. Scythia inside Imaus Mountain, and Σκυθία ἡ ἐκτὸς Ἰμαίου ὄρους (Ptol. VI, 15, 1), i.e. Scythia outside Imaus Mountain. According to Ptolemy, Imaus is a mountain chain meridionally stretching from the North to the South.

The original or contemporary Ptolemy's maps have not survived to the present day. However, there are later variants of these maps; they depict particular parts of the oecumene, including the Imaus Mountain and the two Scythias.

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<sup>4</sup> I. Ju. Kratchkovskii “Arabskaia geographicheskaya literatura,” In: *Izbrannye sochineniya*. Moskva-Leningrad 1954, 94–97; T. M. Kalinina, *Svedeniia rannykh uch'enykh Arabskogo khalifata. Teksty, perevod, kommentarii*. (Drevneishie istochniki po istorii narodov SSSR) Moskva 1988, 12–14.

## THE TURKS ON MEDIEVAL ARAB MAPS...

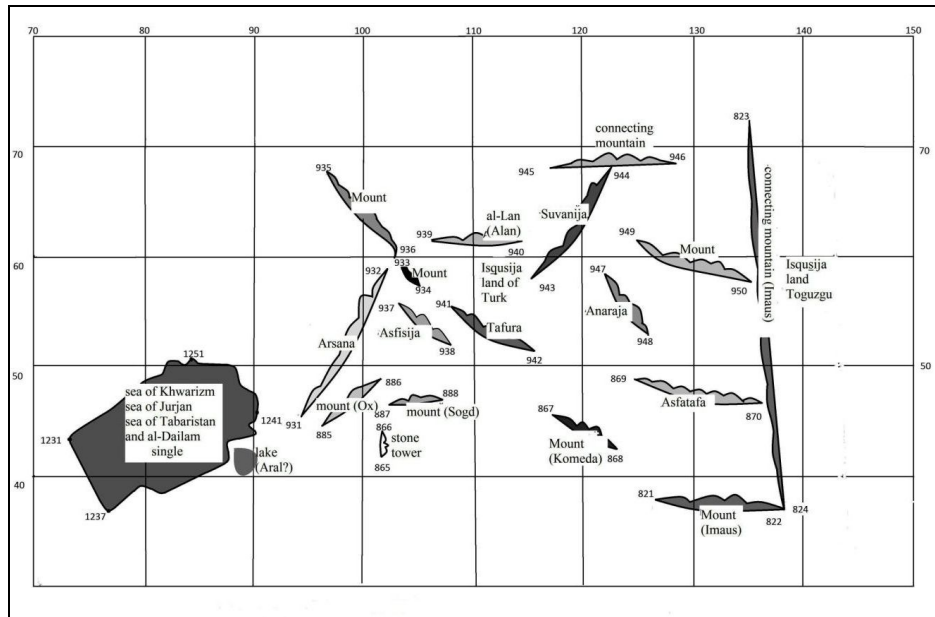


Map 1<sup>5</sup>

The figure below shows my reconstruction of the part of Middle Asia in accordance with the coordinates from al-Khwārizmī's book. Here we can see a range of mountains: one of them corresponds with Ptolemy's Imaus Mountain in terms of its coordinates and location. Al-Khwārizmī indicates the "direction of the mountain top" (the North, the West) for all mountains. In the vicinity of these mountains, the "center of al-Turks" and the "center of at-Tughuzghuz land" are indicated by circles.<sup>6</sup>

<sup>5</sup> *Ptolemaios: Handbuch der Geographie*. Griechisch-Deutsch. Einleitung, Text und Übersetzung, Index. Teil 1-2. ed. A. Stückelberger und G. Graßhoff, Basel 2006, Teil 2. 880-882. (Asien, 7. Karte)

<sup>6</sup> *Das Kitab Surat al-ard des Abu Ġafar Muhammad Ibn Musa al-Huwarizmi*. Ed. H. v. Mžik, Leipzig 1926, 105; Kalinina, *Svedeniia*, 48.



Map 27

There is a significant difference between the coordinates of the location of Scythia in Ptolemy's and al-Khwārizmī's works. In the existing manuscript of al-Khwārizmī's book, the Imaus Mountain does not have a name. There are two unnamed mountains (821-822) and (823-824) conjoining at an angle. The first mountain corresponds to one part of Ptolemy's Imaus Mountain, along which the trade route passed according to him.<sup>8</sup> The mountain (823-824) conjoins with the first mountain (821-822) and spreads northwards, corresponding to the main part of Ptolemy's Imaus Mountain and it "spreads to the North along the meridian line" (Ptol. VI, 14, 1 and 8). Thus, these mountains can in fact correspond to Ptolemy's Imaus. Still, H. Daunicht had a different view on al-Khwārizmī's data regarding the mountain (823-824) as there were no diacritical marks in his text. I depict this mountain in accordance with Ptolemy's data to a greater extent.<sup>9</sup> There is a supposition that these data should be compared to the following mountains: a part of the Himalayas, the middle part of Altyn Tagh, the western part of Trans-Himalayas, the western part of Tibet, the southern Pamir, the Western Himalayas, Hindu Kush.<sup>10</sup>

<sup>7</sup> MAP. 2. My reconstruction of the mountains of Asian part of the World by the al-Khwārizmī's coordinates (without rivers).

<sup>8</sup> H. v. Mžik, *Das Kitab*, 56–57; Kalinina, *Svedeniia*, 22, 41.

<sup>9</sup> H. Daunicht, *Der Osten nach der Erdkarte al-Huwarismi's: Beiträge zur Historischen Geographie und Geschichte Asiens*. Bonn 1968, 230–231; Kalinina, *Svedeniia*, 41.

<sup>10</sup> Daunicht, *Der Osten*, 262–263; A. Ahmedov, "Suratu-l-Arz Kitobi. Shaharlar tog'lar, dengizlar, orollar wa darjolardan [iborat] [Geographia]," In: Muhammad ibn

The territory of "Scythia" in al-Khwārizmī's work is filled with the ethnonyms that are relevant to his time: in the 9th century, the territory of the Turks shared borders with the lands of the Arab Caliphate up to Isfijab in the East. The trade route to China passed through their territories.<sup>11</sup>

The 10th century was characterised by the appearance of geographers belonging to the so-called "classical school". Their works contained the maps which are called the "Atlas of Islam". Al-Balkhī, al-Iṣṭakhri, Ibn Ḥawqal and al-Muqaddasī belonged to this school.<sup>12</sup> The maps were compiled in accordance with the geometrical principle – circles and straight lines. The North was indicated at the bottom of maps and the South was indicated at the top.

Al-Balkhī wrote the treatise "the Image of the seven climates" in approximately 920.<sup>13</sup> It was previously believed that the map and the work of al-Balkhī had not survived to the present day. However, an Orientalist scholar from Kazakhstan, R. Kumekova, recently discovered a manuscript in the Institute of Arab Manuscripts of the League of Arab States in Cairo, which is a copy of the geographical work "The notice of distances and the description of climates" compiled by Abū Zayd Aḥmad ibn Sahl al-Balkhī. A brief acquaintance with this manuscript allowed R. Kumekova to deduce that it was not a revision of al-Iṣṭakhri's work as had been supposed before, but it was the original work of al-Balkhī, because the texts of the works by al-Balkhī and al-Iṣṭakhri were not identical. Her comparison of the geographical maps in these works revealed some differences as well. The map of al-Balkhī includes much more details regarding ethnonyms than that of al-Iṣṭakhri. R. Kumekova revealed a number of additions, amendments and changes that were made by al-Iṣṭakhri when he used al-Balkhī's work. The comparison was made on the basis of the full lists of the work: Cairo, 1961. Thus, as it was already presupposed by researchers, the work of al-Balkhī was almost completely included in the work of al-Iṣṭakhri.

R. Kumekova wrote the following about al-Balkhī's Manuscript, that the contemporary countries of the Turkic peoples were located in different territories. The borders of the lands of the Oghuz tribes were between the territories of the Kimaks, Karluks, Bulghars and the Islamic areas – from Jurjan to Farab and Isfijab. Perhaps the Chigils were mentioned in the original text of al-Balkhī

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Muso al-Horazmī, *Tanlangan Asarlar. Matematika, astronomiia, geografiia*, Toshkent 1983, 224–466, 406, 586.

<sup>11</sup> V. V. Bartol'd, "Dvenadcat' lekcii po istorii tureckih narodov Srednei Azii," In: *Sochineniia*. Moskva 1968, 583–584; S. G. Klyashtorny, *Gosudarstva i narody Evraziiskih stepei. Drevnost' i Srednevekovie*. Sankt-Peterburg 2004, 99–101.

<sup>12</sup> Kratchkovskii, *Arabskaia*, 194–218; J. H. Kramers "Djughrafiya," *Enzyklopaedie des Islam*. Bd. III. Leiden–Leipzig 1936, 66; G. R. Tibbets, "The Balkhī School of Geographers", In: *History of Cartography*. Vol. II. Book I: *Cartography in the traditional Islamic and South Asian societies*. ed. J. B. Harley, D. Woodward, Chicago–London 1992, 108–129.

<sup>13</sup> Kratchkovskii, *Arabskaia*, 195–196; W. M. Watt, "Abū Zayd al-Balkhī," *Encyclopaedia Iranica*. Vol. I. Fasc. 4., ed. Ehsan Yarshater, London 1983, 399–400; Tibbets, *The Balkhī School*, 110.

as the Chigils are known from other sources (Ibn al-Faqih, “Ḥudūd al-‘Ālam” etc.).

In my opinion, the data of al-Iṣṭakhri and Ibn Ḥawqal some times provide similar information too.<sup>14</sup> Unfortunately, we have neither the text nor the map of al-Balkhī from Cairo in hand, as R. Kumekova wrote. However, similar discoveries were made earlier. There are now maps attributed to al-Balkhī; one of them can be seen below.



Map 3.<sup>15</sup>

<sup>14</sup> R. B. Kumekova, “Karta mira Abu Zaida al-Balhi (X v.) kak istochnik po istorii Kazakhstana,” In: *Vestnik KazNU, seriia istoricheskaiia* №3 (54), Almaty 2009, 63–65; Idem, “Svedeniia klassicheskikh arabskikh geografov o tiurkskikh plemenakh Kazakhstana,” In: *Sbornik materialov mezhdunarodnoi nauchnoi konferencii “Kipchaki Evrazii: istoriia, jazyk, i pis’mennyye pamjatniki”, posviashzionnyi 1100-letiiu Kimekskogo gosudarstva d ramkah Dnej tiurkskoi pis’mennosti i kul’tury*. Astana 2013, 324–330.

<sup>15</sup> MAP 3. al-Balkhī (undated): [http://cartographic-images.net/Cartographic\\_Images/214.2\\_Balkhi.html](http://cartographic-images.net/Cartographic_Images/214.2_Balkhi.html)

For clarification, it is necessary to compare this map to those of al-Iṣṭakhri and Ibn Ḥawqal.<sup>16</sup>

The geographer and traveller Abū Ishāq al-Fārisī al-Iṣṭakhri finished the "Book of Routes and States" in 951. This book was a revised and amended geographical work of al-Balkhī. Al-Iṣṭakhri mentioned him at the beginning of the book as part of the general description of the peoples of the Earth. There is a description of Khorasan and other areas of Middle Asia, and the Turkic tribes such as the Karluks, the Oghuz, the Kimaks, the Khirikhiz, the Toghuzghuz, the Bulghars, the Pechenegs and the Khazars in the concluding sections of the book. Al-Iṣṭakhri also provided information regarding cities, roads and trade stations.<sup>17</sup>

The migration of the Pechenegs was original information in the text of al-Iṣṭakhri: "A group of the Turkic peoples called the Pechenegs expelled from their own land and settled between the Khazars and Rūm. The country where they are currently located is not their motherland; they came here and occupied the land"<sup>18</sup>. However, this information is not reflected on the maps of al-Iṣṭakhri as the Petchenegs (*Bajanāk*) marked on the map 1198 close to Māwarānnahr (see above).

The work of al-Iṣṭakhri existed in different editions. The publisher of al-Iṣṭakhri's work, M. J. de Goeje, used a lot of different Persian translations and showed that the Persian versions were more complete.<sup>19</sup> If we compare al-Iṣṭakhri's texts to his round maps that exist in both Arab and Persian versions, we can see that the maps provide us with a very sketchy reflection of the text itself. I present two types of al-Iṣṭakhri's maps copied in the 12th and the 15th centuries, although there are a large number of such copies.

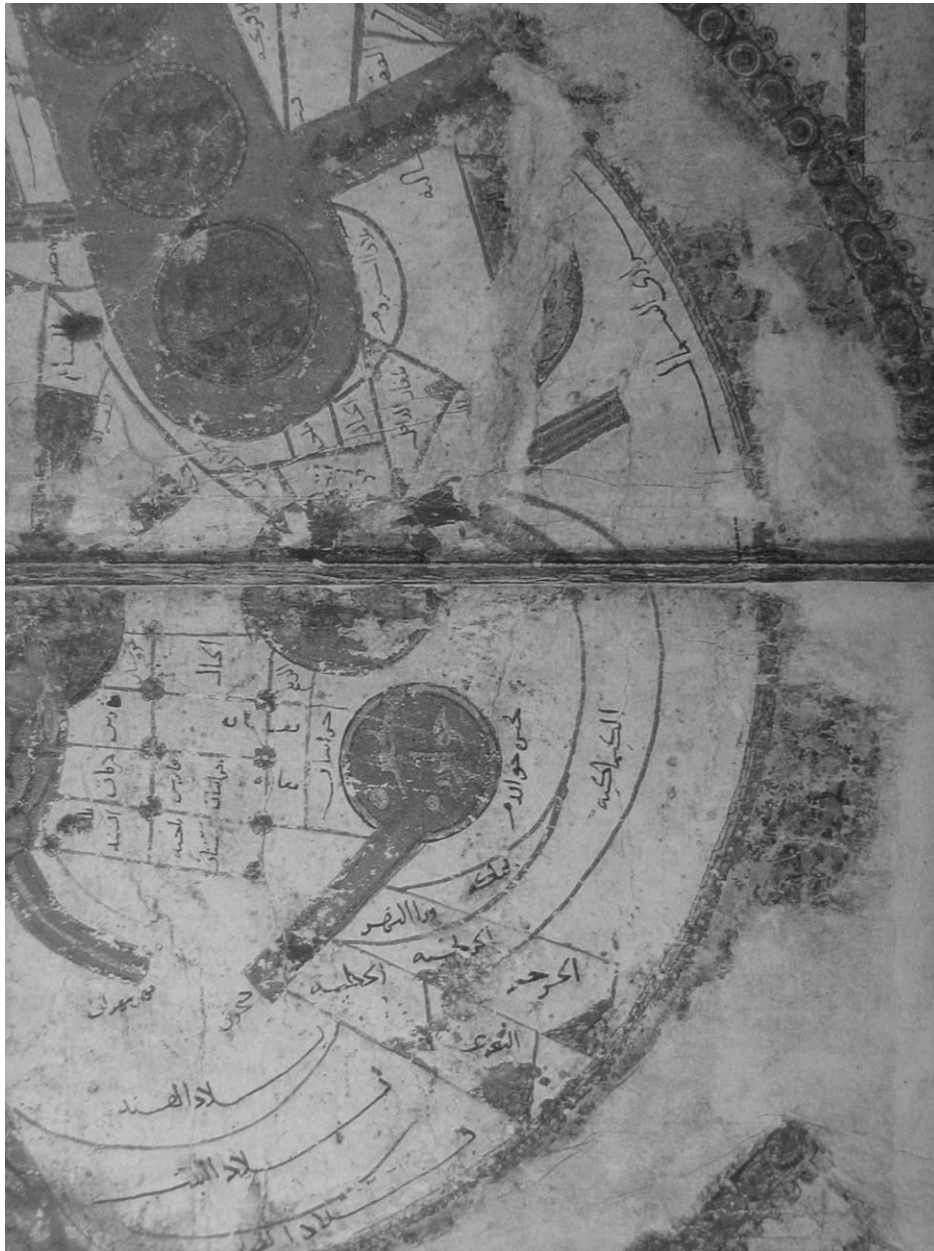
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<sup>16</sup> J. H. Kramers, "La question Balkhi-Istakhri et l'atlas de l'Islam," *Archiv Orientalni*. IX (1931), 9-30.

<sup>17</sup> Kratchkovskii, *Arabskaia*, 196-198; Kramers, *Ibidem*; A. Miquel, "Al-Iṣṭakhri", *The Encyclopaedia of Islam*. New Edition Vol. IV. Leiden 1997, 222-223; Tibbets, *The Balkhi*, 108-111; *Viae regnorum. Descriptio ditionis moslemicae auctore Abu Ishak al-Farisi al-Istakhri*. ed. M. J. de Goeje, Leiden 1870. 5-10, 227-286.

<sup>18</sup> de Goeje, *Viae Regnorum*, 10.

<sup>19</sup> M. J. de Goeje, "Die Istakhri-Balkhi Frage," *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 25 (1871), 42-58.



Map 4<sup>20</sup>

<sup>20</sup> MAP 4. Dat. 589/1193. Leiden manuscript. In: *The History of Cartography*. P. 604. Plate 7.

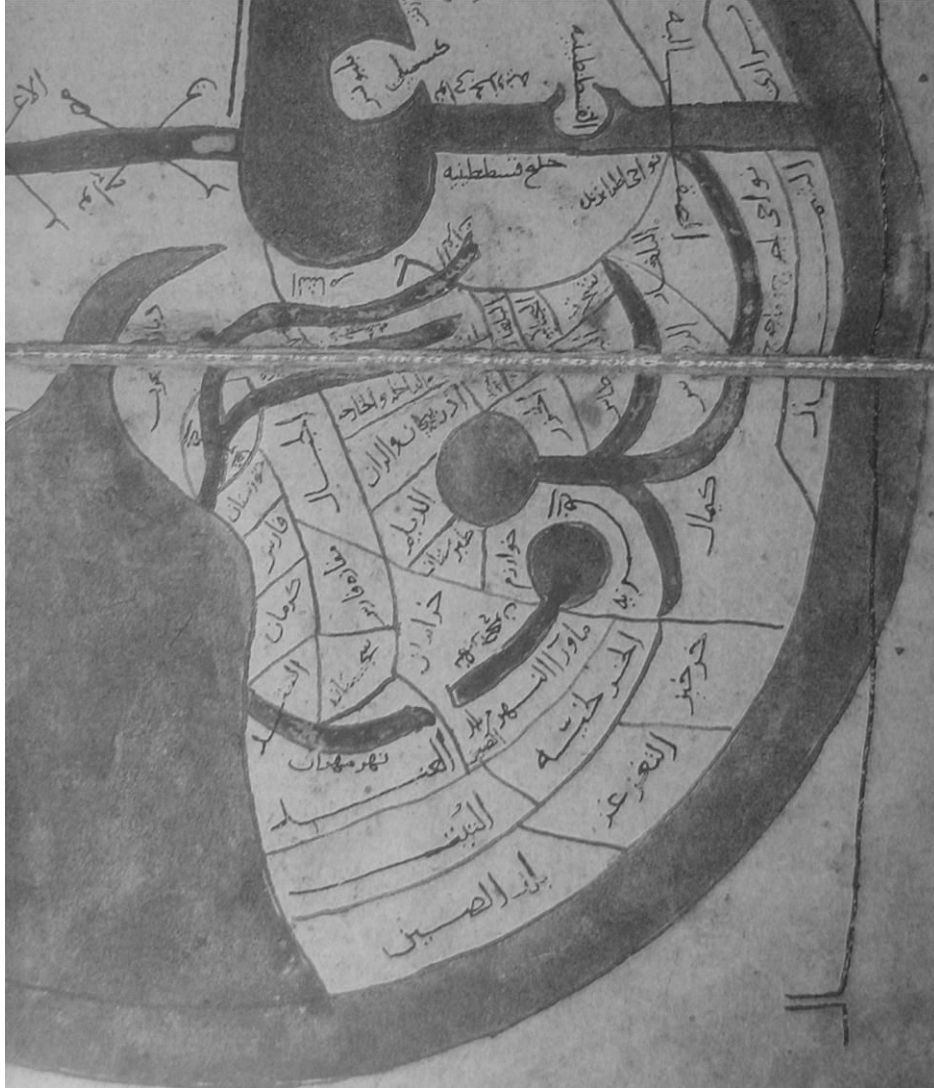


Map 5<sup>21</sup>

Abū'l-Qāsim Ibn Ḥawqal al-Niṣībī, al-Iṣṭakhrī's contemporary, became the successor to his work. He got acquainted with al-Iṣṭakhrī and they agreed that

<sup>21</sup> MAP 5. Dat. 1460 ([http://cartographic-images.net/Cartographic\\_Images/211\\_al-Istakhri.html](http://cartographic-images.net/Cartographic_Images/211_al-Istakhri.html))

Ibn Ḥawqal would correct the inaccuracies in his maps and descriptions. His work was completed in 977 (or 988). Ibn Ḥawqal later expanded al-Iṣṭakhrī's work using original materials.<sup>22</sup> He added the information about Māwarānnahr and the neighbouring Turkic tribes.

Map 6<sup>23</sup>

<sup>22</sup> Krachkovskii, *Arabskaia*, 196–198; A. Miquel, “Ibn Hawkal,” *The Encyclopaedia of Islam*. New Edition Vol. III. Leiden 1986, 786–788; *Opus geographicum auctore Ibn Haukal...* (*Abu-l-Kasim ibn Haukal al-Nasibi*)... «*Liber imaginis terrae*». Ed. collatio textu primae editionis aliisque fontibus adhibitis J. H. Kramers. Lugduni Batavorum, 1939. Vol. II.

<sup>23</sup> MAP 6. Dat. 1086. Tibbets, *Cartography*, P. 123. Fig. 5.16.

According to Ibn Ḥawqal's world map, Khwārizm and the region of the Oghuz were located around the Aral Sea (*baḥr al-Khwārizm*), and Māwarānnahr is along the river Jayḥūn. Ibn Ḥawqal repeated al-Iṣṭakhri's story regarding the migration of the Pechenegs, adding that they became allies of the Rūs people.<sup>24</sup> Researchers have long noted this as very important information.

The Karluks, the Khirhhiz, the Tughuzghuz in Ibn Ḥawqal's map are shown further to the North (the North is on the bottom of the map), whilst the Kimaks are shown in the area between the two branches of the river Atil.

Al-Iṣṭakhri and Ibn Ḥawqal showed and described the river Atil in different ways on the maps. On the maps of al-Iṣṭakhri, Atil has two branches and the Khazar Sea (Caspian Sea) is not connected to any water pool.<sup>25</sup> On the world map of Ibn Ḥawqal, the river Atil has three branches. The main branch is shown flowing into the Strait of Constantinople (*khalij al-Qustantiniya*). The Strait of Constantinople is a water stream emerging from the Sea ar-Rūm (the chain of seas from Gibraltar to Syria). After passing by Syria (*al-Shām*), the flow sharply turns downwards and becomes the Strait of Constantinople.<sup>26</sup> Al-Iṣṭakhri also shows the Strait of Constantinople, but does not tie it to the Khazar Sea.<sup>27</sup>

Ibn Ḥawqal placed the Rūs, the Bulghars, the Slavs (*al-Ṣaḡālība*), as well as the Bashjirt, the Pechenegs, the Inner-Bulgars (*al-Dākhila*) near the Strait of Constantinople, close to the main channel of the river Atil, and one of the branches this river on his map. The third offshoot of Atil is the same as that of al-Iṣṭakhri, with a population of Kimaks.

As far as we can see, Ibn Ḥawqal's information about Turkic tribes and the geography of Middle Asia does not coincide completely with the information provided by al-Iṣṭakhri.

If we now return to considering the map of al-Balkhī (MAP 3, see above), we will see the opulent similarity between Ibn Ḥawqal's and al-Balkhī's maps, though the map by al-Balkhī includes fewer details. It means that al-Balkhī's maps and those of Ibn Ḥawqal require further study and comparison, as well as the book and maps of al-Iṣṭakhri.

<sup>24</sup> Kramers, *Opus geographicum*, 15.

<sup>25</sup> de Goeje, *Viae regnorum*, 222.

<sup>26</sup> Kramers, *Opus geographicum*, 388, 389, 393.

<sup>27</sup> de Goeje, *Viae regnorum*, 68–71.