

FUNDAMENTAL CHARACTERISTICS OF PHYSICAL AND POLITICAL GEOGRAPHY OF ARMENIA. THE ARMENIAN HIGHLAND

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The historical-geographic environment of the Armenian nation from the earliest times embraced the Armenian Highland and adjacent territories between the Black Sea in the north, the Mediterranean Sea in the south-west and the Caspian Sea in the east.

Armenia is a country of mountainous landscape with mountain ranges, plateaus and high peaks. The holistic natural environment of Armenia is mentioned as the mountains of Armenia¹ or the Armenian mountains², (the mountains of Ararat³) and *montes Armeniae*⁴ (the mountains of Armenia) in antique and Armenian early medieval sources⁵, as well as in the Bible⁶.

Armenia's mountains are of volcanic origin and its mountainous relief is higher, on average, than surrounding territories, being characterized by geomorphologic peculiarities, thus since the 19th century it has been singled out as a geographic and geologic region and the ancient and medieval geographic terms *լեռինս Հայոց* (the mountains of Armenia or the Armenian mountains) have been adopted in geographical

¹ Herodotus, with an English translation by A. D. Godley. Cambridge. Harvard University Press, 1920, I, 72, 2; V.52.3. As J. Rennel noted: "The Armenia of Herodotus (in Terpsichore 52) extended westward to the Euphrates, in the quarter towards Cilicia; and southward to mount *Masius* in Mesopotamia; as may be inferred from the same chapter. Northwards it included the sources of the Euphrates (Clio, 180)... it should be confined on the east by the mountains which separate the course of the Araxes, from the eastern sources of the Euphrates; amongst which is Mount Ararat..." (James Rennel, *The Geographical System of Herodotus Examined and Explained by a Comparison with Those of Other Ancient Authors and with Modern Geography*. Volume 1, London, 1800, pp. 279-280).

² *The Geography of Strabo*, with an English translation by H. L. Jones, London, in eight volumes, vol. V, 1954, XI. II. 15, et al.

³ Gen. 8.4. There is the following entry about Armenia in Eastons Bible Dictionary: "Armenia: A country in western Asia lying between the Caspian and the Black Sea. Here the ark of Noah rested after the Deluge" (A Dictionary of Bible Terms by M.G. Easton M.A., D.D., from *Illustrated Bible Dictionary Third Edition* published by Thomas Nelson, 1897, pp. 97-98).

⁴ *Biblia Sacra Vulgatae, editionis juxta exemplaria ex typographia apostolica Vaticana: Romae 1592 & 1593 inter se collata et ad normam correctionum romanarum exacta auctoritate Summi Pontificis Pii IX, Valentinus Loch (Herausgeber), Manz, 1863, t. I, Gen. 8. 4.*

⁵ Movses Khorenatsi, *The history of Armenians*, Yerevan, 1991, p. 33, 34; Ղազարայ Փարպեցոյ Պատմութիւն Հայոց, եւ թուղթ առ Վահան Մամիկոնեան, Տփղիս, 1904, ՀԳ; Խաչիկյան Լ., Եղիշեի «Արարածոց մեկնութիւն», Yerevan, 1992, p. 245, etc.:

⁶ The phrase *εἰς τὰ ὄρε Ἀραράθ* (The Septuagint Version of the Old Testament, with an English translation and with various readings and critical notes, London, Τωβιτ I, 21, cf. Ἀραράτ, Gen. 8.4) is translated «ի լեռինս Հայոց» ("into the mountains of Armenia") in the Armenian translation (the beginning of the 5th c. AD, Գիրք Աստուածաշունչք Հին եւ Նոր Կտակարանաց, ի Վենետիկ, 1860, Տոլբիթ Ա 24) of the Bible.

and geological literature as *das Armenische Gebirge*⁷, *das Armenische Hochland*⁸ (the Armenian Highland).

The Armenian Highland is located in Western Asia and covers almost 400 thousand km²;⁹ average elevation: 1500 to 2000 meters. The highest peak of the Armenian Highland is Great Ararat-Masis (5165 m), called also Free Masis, according to Movses Khorenatsi¹⁰.



The views of Mount Ararat-Masis and the Yeraskh (Arax River) from the Ararat valley¹¹

⁷ Handbuch der alten Geographie, aus den Quellen bearbeitet von Albert Forbiger. Erster Band. Leipzig, 1842, S. 86; Mittheilungen aus Justus Perthes' Geographischer Anstalt über Wichtige Neue Erforschungen auf dem Gesamtgebiete der Geographie von Dr. A. Petermann. Gotha, 1868, S. 131.

⁸ Abich Hermann, Ein Cyklus fundamentaler barometrischer Höhenbestimmungen auf dem Armenischen Hochland. Mémoires de l'Académie Impériale des Sciences de St.-Petersbourg. t. 27, N 12, 1880; Abich G., The geology of the Armenian Highland. Western part, Orographic and geological description, "Zapiski kavazskogo otdela imperatorskogo geograficheskogo obshestva", boazskogo otdelaok. 21, 1899, Eastern part, book 23, 1902. Cf. Élisée Reclus. The Earth and Its Inhabitants. Asia. Vol. IV, South-Western Asia, New York, 1891, pp. 3, 13; Promptow J., Durch das Armenische Hochland, Leipzig, 1955. Researching geomorphological and geological features of the orography of Armenia (Western and Eastern Armenia) Herman von Abich (1806-1886) used the historically grounded geographic term *das Armenische Hochland* (the Armenian Highland) characterizing the physical-geographic-geologic-geomorphologic features of Armenia, i.e. the physical-geographical location and characteristics of the Armenian Homeland.

⁹ <https://www.britannica.com/place/Armenian-Highland>

¹⁰ Movses Khorenatsi, p. 84, 192. É. Reclus noted: *Armenian Masis (Ararat)* (É. Reclus, op. cit., p. 1)

¹¹ In his "History of Armenia" Movses Khorenatsi gave a picturesque description of the Ararat valley ("a deep valley, guarded by mountains with high peaks and crossed by a loquacious river (Eraskh) flowing from the west... At the feet of the mountains spring many limpid sources, which flow together forming quiet rivers. They border the feet of the mountains and edges of the plain like teenagers courting maidens") together with Mt Masis-Arara ("And the mountain to the south that goes up to the sun, with shining white summit rising straight up from the earth - it being a three-day journey, as one of our countrymen said, for a well-girded man to encircle - and gradually crowning with the peak is truly an old mountain amid the rejuvenated mountains" (Movses Khorenatsi, p. 112-113).

The north-western mountain ranges of the Armenian Highland extend to the shore of the Black Sea. The Armenian Highland borders on the plateau of Asia Minor in the west and the Iranian plateau in the south-east. The Armenian Highland is bordered by the Kura River in the north and north-east and the plains of North Mesopotamia in the south-west.

Among the characteristic features of the landscapes of Armenia are snow-covered peaks, Alpine meadows, mountainous lakes, rivers flowing through deep canyons, fertile valleys, slopes of mountains covered with forests and shrubs. The nature of Armenia is favorable for agriculture and cattle-breeding which were developed here from the earliest times.

The Eastern Pontic mountains¹² and Anti-Taurus are in the northwest and the west, the mountains of Upper or High Armenia, Tayk, Gugark¹³ in the north, Syunik (Zangezur)¹⁴ and Artsakh in the east¹⁵, the Eastern or Armenian Taurus (Aghdznik and Sasun), Korduk in the southwest¹⁶, the Kotur in the south and the *Armenian mountains*¹⁷ in the southeast of the Armenian Highland.

The Kechvan, Metsrats, Tsiranyats, Tsaghkavet massifs are situated in the mountainous zone stretching from Tayk to the plain of Karin. In Upper Armenia, between the Western Euphrates and the Tchorokh situated is the mountain range named in ancient times after the goddess Anahit (in the Middle Ages it was renamed St. Gregory Mountain- 3537 m). To the east of the Tevrik mountain range stretch the mountain ranges of High Armenia (the peak- Pakhra, 3287 m), Mndzur and to the further south is the Khordzyan gavar mountainous zone of the province of Tsopk.

¹² The Eastern Pontic Mountains in Armenian sources were called the Parkhar Mountains (Kachkakar - 3937 m and Verjnbak - 3711 m). The continuation of Parkhar is the Khaghtyats Mountains.

¹³ The mountainous system of Gugark includes mountains of Kgharjk, Javakhk, Treghk, Khonav (Mtin or Kangark), Bazum, Lori-Tashratap, Kayan and others. It includes also the Armenian mountains (the medieval sources apply the name Armenian mountains in relation to different mountainous parts of Armenia) mentioned by Ghazar Parpetsi (V c.). The south-eastern slopes of the Arsian range (the peaks: Arsian - 3165 m. Ulgar - 3015 m) reach Ardahan. The highest peak of Javakhk Mountains is Mt. Aboul (3304 m). From the south of Gugark the mountains of Pambak (the peak is Maymekh or Dzitahanits mountain - 3109 m), Tavush and others turn to the Areguni and the Sevan-Mrav system. Parallel to Areguni mountain range, edging Lake Sevan stretch Mrghuz Mountains.

¹⁴ Bargushat (the peaks: Aramazd, Geghakar, Qarakatar, Erkatasar) mountains (the watershed of Vorotan, Voghji and Geghi rivers) branch off from the Zangezur range. The Syunik mountains (the peaks: Kaputjugh 3905 m, Khustup) extend to Yeraskh (Araks) River in the south. From the Arpa River to Meghri Gorge stretches the Zangezur mountain range. To the south from Zangezur mountain range is Meghri mountain range (the peak Baghatssar). The Vayk mountain range reaches Sharur and Nakhijevan plains.

¹⁵ The loftiest peaks of the Artsakh Mountains are Yeghegnasar (Gyamish), Mrav, Alharak, Great Kirs and Dizapait (Artsakh Atlas, text by Karapetyan S. G., Yerevan, 2016). From the east of Vardenis massif stretches the Artsakh mountain system, including Kashatagh (at the junction of Kashatagh and Sodk ranges rises Mt. Rmbasar) and Mrav mountain ranges. From the midstream of Tartar River to the south-east stretch Dizapait Mountains. In the junction place of Kashatagh and Sodk rises Rmbasar (3373 m). The mountainous region of Artsakh in the south reaches up to Aghavno River.

¹⁶ In Andzevatsik gavar of Vaspurakan province Kangvar mountain range connects the Armenian Taurus with the Korduk Mountains.

¹⁷ The mountain pass (gates) called *Armenian Droonk* is located in the *Armenian Mountains* to the east of Kaputan Lake.

The Basen valley is crossed by the Yeraskh (Araks) River, between the Tsiranyats and Tayk massifs and the Jrabashkh and Aytspkunk mountain ranges. The mountains of Tayk are adjacent to the Metsrats and Karmir Porak Mountains to the east of which is the Kars plateau. *Kogovit concavity* stretches from the foot of Mount Ararat-Masis in the south-western direction, up to the Vaspurakan massif. The regions of Tsaghkants, Tondrak, Tsaghkotn, Sipan, Berkri, Bznunyats, Manazkert and Van are situated in the basin of Lake Van. The Tsaghkants Mountains with Tsaghkeo (3543 m), Aghi (3519 m) and Npat (2332 m) peaks are situated between Lake Van and Eastern Euphrates (Aratsani). The Sipan plateau (the summit Sipan-*Nekh Masik*) stretches between the Tsaghkants Mountains and Lake Van. To the west from Lake Van, in Bznounik gavar, is Mount Nemrut (Sarakn) (3050 m), where above 2500 meters Lake Nemrut is situated; to the south from Nemrut is Mount Grgur. The mountainous zone of Meghedukh and Taron stretches from the Karin valley to the ranges of Armenian Eastern Taurus. It includes the Meghedukh, Byurakn, Khamur shield-shaped massifs and the mountain ranges of Aytspkunk, Mardaghi and Taron. The Aytspkunk mountain range, with the namesake peak (3124 m) stretches from the Yeraskh River to the Meghedukh massif. The Byurakn massif stretches from Mount Kataroy (2950 m) to south-east. Some of the tributaries of the Yeraskh and Aratsani rivers spring in the Byurakn massif, which is surrounded by the valleys of Ginek and Bazkan rivers, the Khnus concavity and the Tekman plateau. In the south-east the Armenian *Chain joints the* Tondrak massif (through Yeghbark upland) with Khori (3548 m) and Tondrak (3313 m) peaks, which emits sulphury gas and water vapors.

Taron-Hark mountain range stretches between the Aratsani River and the Mush valley. Between Simsar and Taron mountain ranges the Mush valley is situated. The natural continuation of the Cilician Taurus is the Armenian (Eastern) Taurus, in the middle part of which rise Marutasar, Achkakar, Tsovasar, Kepin and other peaks. The Khacharaj mountain range is the south-eastern continuation of Simsar. The southern Sanasun (Sasno) and Salna massifs of Simsar form Sanasun or Sasun and Salnadzor cantons, and the eastern part of those mountains is called Khut. One of the peaks of Sasun mountain range is Tsirinkatar, on the northern slopes of which is located the famous St. Apostles (Aregatsag Tirinkatar) monastery. Khut and Aghdznik plains are located to the south from Sasun. The Masius Mountains are situated in the north of Armenian Mesopotamia. Shatakh, covered with forests, Rshtunik edging Lake Van and Mokq (Arnos - 3550 m and Artos - 3475 m) are the eastern branches of the Armenian Taurus. The peak of Vaspurakan plateau, Mount Varaga (3250 m) rises to the east of Van. To the south-west from Lake Van is Hayots Dzor (Armenian Valley).

The mountains of *Byurakn* ("Ten thousand springs") and *Haikakan Par* (the *Armenian Chain*) are in the middle of the Armenian Highland¹⁸. The summit of the

¹⁸ The Armenian (Central) volcanic plateau, known as *Mijnashkharh* (Midland), is divided into northern and southern parts by the *Armenian Chain* to the west of which is the *Jrabashkh* (Watershed) mountain range (its peak is Sukavet, 3424 m.) and to the south - the Sharian mountain range between the Vagharshakert (Alashkert) plain and Dalar valley.

Byurakn massif is *Sermants-Byurakn* (3189 m), which in "Ashkharatsoyts" (The Geographic Atlas) is called "the Peak of the Land, where spring many sources."

Above all tower the summits of the huge extinct volcanic massif of the Ararat Mountains: Mount Great Ararat-Masis, and Little Ararat (Sis, 3925 m.).



The view of Mt. Ararat-Masis from the slope of Mt. Aragats

The mountains of the Armenian Highland are of volcanic origin and most of its peaks are extinct volcanos: Mt. Ararat-Masis, Mt. Sipan (Nekh-Masik, 4434 m, to the north of Lake Van), Mt. Aragats (4095 m), Mt. Kachkar (3937 m), Mt. Kaputjugh (3917 m), Mt. Azhdahak (3598 m.), Yeghegnasar (3725 m), Mt. Ishkhanasar (3552 m), Mt. Tondrak (3542 m), Mt. Artos (3475 m), Mt. Aramazd (3392 m), Mt. Rmbasar (3373 m), Mt. Mrav (3340 m), Mt. Geghmaghan (3319 m.), Mt. Samsar (3285 m.), Mt. Baghatssar (3256 m), Mt.

Khustup (3216 m), Mt. Sermants-Byurakn (3189 m.), Mt. Mndzur (3188 m), Mt. Great Maimekh (3109 m), Mt. Nemrut (3050 m), Mt. Marutasar (2967 m), Mt. Andokasar (2830 m), Mt. Teghenis (2812 m)¹⁹, Great Kirs (2725 m), Mt. Simsar (2689 m), Mt. Arai Ler (2614 m), Ishkhanisar (2561 m), Mt. Dizapait (2448 m), Mt. Npat (2332 m) and others.

Armenia - Haik' - Haiastan - the Homeland of the Armenian nation is the cradle of civilization from ancient times, the evidence of which are the petroglyphs and megalithic observatories, various manifestations of early cosmological and calendrical contents, the origin and development of agriculture, the monuments of city planning, temples and later, cathedrals, horse breeding, metallurgy and chariot making, etc. Preconditions for the origin of civilization in the Armenian Highland situated in Western Asia were the favorable geographical environment, natural resources, the Hai-Armen ethnic basis and the Aryan spiritual commonality which enabled spiritual, cultural, economic and political life of the Armenian people. With its historical-cultural values Armenia has a prominent place along with Sumer, Egypt and other countries of the basin of the Mediterranean Sea and Mesopotamia in the development of world civilization.

¹⁹ It is the peak of the Tsaghkunyats mountain range; to the south is Yeghvard plateau.



Mt. Sipan and Lake Van



Mt. Aragats

The complete system of the Armenian ethno-geographic names characterizes the natural-historic environment and cultural and social-political history of Armenia-Haiastan - the cradle and the Homeland of the Armenian nation. Armenia and the Armenian statehood have been attested in ancient (the 3rd millennium BC-3rd c. AD) and medieval historical sources under the names of Aratta²⁰ (Ararat), Armanum²¹ (Armani, cf. Armi, Arme), Hayasa²², Nairi, Ararat (Kingdom of Van-Urartu), Armina²³, the kingdoms of Greater Armenia (320 thousand km²) and Armenia Minor (80 thousand km²)²⁴, as well as the Armenian state of Cilicia²⁵ (in 1080-1198 - the Armenian principdom, in 1198-

²⁰ See about Aratta: Kramer S. N., *Enmerkar and the Lord of Aratta: a Sumerian Epic Tale of Iraq and Iran*, Philadelphia, 1952; L. N. Petrosyan compared the name of Aratta with the name of Ararat (Urartu) [see: *Armenian Ethnography and Folklore. Collection*, 6, Yerevan, 1974, p. 123, cf. Kavoukjian M., *Armenia, Subartu and Sumer. The Indo-European Homeland and Ancient Mesopotamia*, Montreal, 1987, pp. 59-81; Movsisyan A., *The ancient state in Armenia: Aratta*, Yerevan, 1992 (in Arm.).

²¹ Kifishin A., *geographical views of ancient Sumerians during patesi Gudea (2162-2137 BC. – Palestinskij sbornik 13 (76)*, 1965, p. 64 (in Russian); Ivanov V.V., *The highlighting of different chronological layers in Armenian and the problem of the initial structure of the hymn of Vahagn, Patmabanasirakan handes 1983/4*, p. 32-33 (in Russian); Danielyan E. L., *On the genetic identity of Armanum with Armenia*, *Fundamental Armenology*, № 1 (5) 2017, pp. 7-17 ([http://www.fundamentalarmenology.am/datas/issues/ISSUE-1-\(5\)-2017.pdf](http://www.fundamentalarmenology.am/datas/issues/ISSUE-1-(5)-2017.pdf)).

²² Martirosyan N., *The relationship of Armenian with Hittite*, *handes amsorea*, 1924, N 9-10, p. 453 (in Arm.); Kretschmer P., *“Der nationale Name der Armenier Haik”*, *Anzeiger der Acad. Der Wiss. In Wien, phil.-hist. Klasse*, 1932; Kapancyan Gr., *Hayasa – the cradle of the Armenians. Ethnogenesis of Armenians and their pre-history*, Yerevan, 1956 (in Russian); Kosyan A., *Hayasa and Azzi*, in *Gift from Heaven. Myth, Ritual and History: Collection of papers dedicated tot he 80th birthday of Sargis Haruthiounyan*, Yerevan, 2008, p. 263-291 (in Arm.); Ghazaryan R., *Political and cultural history of Hayasa*, Yerevan, 2009 (in Arm.) etc.

²³ Cf. *Arminiya*, see: *Les inscriptions de la Perse achéménide. Traduit du viueux perse, de l’élamite, du babylonien et de l’araméen, présenté et annoté par Pierre Lecoq*, Gallimard, 1997, p. 55.

²⁴ Ptol., V. 12. 1; 6. 18. *The Armenian statehood as manifested by the ancient and medieval kingdoms [generated and reigned by the Haikian (Haikazun) dynasty (from the 3rd millennium BC) and its branches (until I c. AD), the Armenian Arshakuni (until 428), the Haikazun-Sisakyan-Aranshahik (Vachagan the Pious of Artsakh, 484 - the mid-6th c.), the Bagratuni (885-1045) and its coeval and the subsequent ones (Vaspurakan, 908-1021, Kars-Vanand, 963-1065, Tashir-Dzoraget, 966-1113, Parisos, the mid-10th c.-1044, Siunik, 970-1170, Kilikia (Principality - 1080-1197, Kingdom - 1198-1375)], and also manifested by the early and late medieval principalities (e.g. the Mamikonyans of Taron, Sasun and Taik, the Zakarians, the Arstakh Melikdoms et al.) were based on the Armenian system of principalities.*

²⁵ *The Kingdom of Cilician Armenia by Sirarpie Der Nersessian. - in: A History of the Crusades, vol. II, Philadelphia, 1962, pp. 630-659.*

1375 - the Armenian kingdom, 40 thousand km², the capital Sis) in the region of the Cilician Taurus - the natural continuation of the Armenian (Eastern) Taurus.

In this respect it is worth mentioning the Babylonian map of the world (7th-6th cc. BC) and the maps of the world by Hecataeus of Miletus (550 BC - 476 BC), Herodotus (484-425 BC), Eratosthenes (276 BC - 195 BC)²⁶ and the maps of Greater Armenia and Armenia Minor by Claudius Ptolemy (83-161 AD), "Geography" of Strabo (64 BC - 24 AD) and other classical and medieval authors' works, particularly, "Ashkharhatsoyts", as valuable ancient and early medieval geographic and cartographic sources about the history and geography of Armenia.

According to Claudius Ptolemy, Greater Armenia "is terminated in the north by a part of Colchis, by Iberia, and Albania on the line which we have indicated as running along the Cyrus (Kura) river; on the west by Cappadocia along the accessible part of the Euphrates and the part of Pontus Cappadocia... on the east by a part of the Hyrcanium (Caspian) sea from the mouth of the Cyrus river... and by Media on the line leading to the Caspius mountains... on the south it is terminated by Mesopotamia... then by Assyria... The part of Armenia Minor farthest north is called Orbalisene, below this - Aetulane, then Haeretica and below this Orsene and further south after Orsene is Orbisene..."²⁷.

According to the Armenian historians, especially the authors of "Ashkharatsoyts" ("Armenian Geography" or "World Atlas", along with geographical and cartographical information about Europe, Africa and Asia, containing detailed data about the historic geography of Armenia²⁸) - Movses Khorenatsi (the 5th c. AD) and the continuer of his work, famous geographer, mathematician and astronomer Anania Shirakatsi (the 7th c. AD), Greater Armenia consisted of 15 provinces: Bardzr (Upper or High) Armenia, Tsopk, Aghznik, Turuberan, Mokka, Korduk, Nor Shirakan (Parskahayk), Vaspurakan, Syunik, Artsakh, Paytakaran, Utik, Tayk, Gugark, Ayrarat. Each province consisted of *gavars* (cantons), their number, according to "Ashkharatsoyts", was 201. Armenia Minor was situated to the west from Greater Armenia. A part of the Armenian Homeland is Cilicia (Kilikia) situated in the north-eastern coastal zone of the Mediterranean Sea.

Most capitals of ancient and medieval Armenia were located in the Ararat valley (Armavir, Yervandashat, Artashat, Vagharshapat, Dvin) and other parts (Bagaran, Yerazgavors, Kars, Ani) of the Ayrarat *ashkharh* (province). The classical Greco-Roman and early medieval Armenian geographers and historians mention also other ancient

²⁶ Eratosthenes: "The Tigris and Euphrates flow from Armenia to the south and enclose Mesopotamia" (Eratosthenes' Geography. Fragments collected and translated, with commentary..., by Duane W. Roller, Princeton and Oxford, 2010, p. 186).

²⁷ ΚΛΑΥΔΙΟΥ ΠΤΟΛΕΜΑΙΟΥ ΓΕΩΓΡΑΦΙΚΗ ΥΦΗΓΗΣΙΣ. Parisiis, 1901, V.12.1; cf. Strabo, XII, 3.29.

²⁸ "Ashkharhatsuyts" contains data of great historical-geographical value about the administrative-political state of ancient and early medieval Armenia within the confines of Great Armenia and Armenia Minor (Eremyan S., Armenia according to « Ashkharhatsoyts», Yerevan, 1963 [in Arm.]).

Armenian capitals (Van of the Araratian Kingdom, Tsopk - Arshamashat, Commagene - Samosat, Greater Armenia and the Armenian Empire - Tigranakert).

Armenia is one of the centers of the origin of metallurgy. The Armenian mountains are rich in copper (Gugark: Pghndzahank, Manasgomer, Syunik: Kajaran, Agarak, Kapan, Aghdznik: Arghana) silver (Aghdznik: Angegh-tun), gold (Upper Armenia: Sper, Tayk: Arseats-por, Syunik: Sodk-Zod) lead (Syunik: Bakhk) and iron (Angegh-tun, Tayk, Rshtunik), tin (nearby Van and Karin), etc. There are salt mines in Koghb, Kaghzvan, Nakhijevan and Avan. Mineral springs and terminal waters (Jermuk, Arzni, Bjni, etc) of the Armenian Highland have curative properties. There are coal-fields in the basins of the Tchorokh, Aghstev, Debed, in the region of the watershed of Lake Van and Lake Urmia.

As Strabo mentions, the so-called *sandyx* (which is also called the “Armenian colour,” like purple) was mined in Sper (in the region of *Upper Armenia* in Western Armenia)²⁹. According to the Roman author Pliny the Elder (Gaius Plinius Secundus, 23-79 AD), blue paint was exported from Armenia which was made of a mineral (a type of *lapis lazuli*) known under the name of the “Armenian stone” - *Armenium*³⁰.

Since ancient times various kinds of stones have been an important material in construction works and economic activities of Armenians. Obsidian was used in making implements, it was also exported as raw material or integrated products from Armenia to the countries of Mesopotamia and the Near East. The abundance of various stones (volcanic tuff, basalt, marble, granite) contributed to formation of a specific coloring of the Armenian architecture.

The Armenian Highland is the watershed of the main rivers in Western Asia, which are important water-ways. The Euphrates (2700 km) and the Tigris (1945 km) flow into the Persian Gulf, the Kura (1364 km) and the Yeraskh (Araks, 1072 km) flow into the Caspian Sea, the Tchorokh (368 km), Gayl (320 km) and Halys (1355 km) flow into the Black Sea.

The Euphrates, originating in the Tsiranyats mountains (in southern Tayk), is formed of two arms, the Western Euphrates and the Eastern Euphrates (Aratsani).

The Tigris is formed of two branches, the Western Tigris (originates in Lake Tsovk) and the Eastern Tigris. The Western Tigris basin is separated from the Eastern Euphrates basin by the mountain system of the Armenian Taurus.

Since ancient times navigation was realized by the Euphrates and Tigris rivers from Armenia to the countries of Mesopotamia. It is evidenced by the Sumerian sources (3rd millennium BC), as well as the Greek historian Herodotus (484-425 BC), who describing Babylon, noted: “The city is divided into two parts; for it is cut in half by a

²⁹ Strabo, XI, 14, 9.

³⁰ “Armenia sends us the coloring substance which is known to us by its name. This also is a mineral, which admits of being dyed, like chrysocola, and is best when it most closely resembles that substance, the color being pretty much that of *cæruleum*... (Pliny the Elder, *The Natural History*, XXXV, 28 *Armenium*).

river named Euphrates, a wide, deep, and swift river, flowing from Armenia...³¹. He noted that the boats “which ply on the river and go to Babylon are all of skins and round. They make these in Armenia, higher up the stream than Assyria. First they cut frames of willow, then they stretch hides over these for a covering, making as it were a hold; they neither broaden the stern nor narrow the prow, but the boat is round, like a shield. Then they fill it with reeds and send it floating down the river with a cargo; and it is for the most part palm wood casks of wine that they carry down”³². Herodotus also mentioned the Tigris, Zab and Gind which flow from Armenia³³. According to the Greek geographer Strabo (64/3 B.C.- 20 A.D.), “the Euphrates... rises in the northern part of Taurus, and flows toward the west through Greater Armenia, as it is called, to Armenia Minor³⁴ ... it leaves this and Commagene on the right hand; on the left Acilisene and Sophene, belonging to Great Armenia...”³⁵.

Rivers and lakes (Van, Sevan, Tsovk, Parvana, Tsovakn Hyusiso) in Armenia were used for navigation and fishing, as evidenced also by archaeological materials (fishing supplies, anchors, etc.).

The Armenian people tenderly call Yeraskh “Mother Araks”. The famous Roman poet Publius Vergilius Maro (70-19 BC) allegorically wrote about the Araks river: “angry at the bridge”. The Araks has a number of tributaries: Murts, Akhurian, Metsamor, Kasakh, Hrazdan (Zangu), Azat, Tghmut, Arpa, Karmir Get, Vorotan, Aghavno, Karkar, etc.

According to Movses Khorenatsi, from the forests of Metsrats Mountains, cedar wood was transported along the Araks for the construction of Artashat.

The northern and the north-eastern parts of the Armenian Highland are crossed by several streams flowing down to the Kura River. The sources of the Kura are in Kogh gavar of Tayk, the right bank tributaries are: Alget, Tsurtaget, Khram, Dzoraget (Debed), Aghstev, Tavush, Trtu, etc.

There are a number of lakes in the Armenian Highland. Lake Van (Bznuneats tsov: “the Bznuneats Sea”) and Lake Urmia (“Kaputan tsov”) have no outlet, their water is salty. Lake Van is known for its herring “tarekh” fish. Van *tarekh* is the only species of fish which lives in its salty water. The waters of Lake Urmia contain no fish. Lake Sevan (“Geghama tsov”: “the Sea of Gegham”) is one of the highest freshwater lakes in the world. The Sevan trout, an endemic fish of Lake Sevan is called “ishkhan” in Armenian. Only one river - the Hrazdan (Zangu) flows out of Lake Sevan. The islands of Lake Van are: Sim, Arter, Ktuts, Akhtamar. To the south-east from Lake Van is Lake Artchak, and to the west - Lake Nazik. Berkri, Marmet and some other rivers flow into Lake Van. The largest lake of Armenia is Kaputan. The other lakes of Armenia are:

³¹ Herod. I. 180.

³² Ibid., I.194.

³³ Ibid., V.52.

³⁴ Strabo XI. 12. 3.

³⁵ Strabo, op. cit.

Tsovkn (from which flows out the Western Tigris), Tsovkn Hyusiso, Gaylatu, Parvana, Parz etc.

Armenia is situated in the temperate zone. Its climate is distinctly continental with dry, hot summers and rather cold winters. In accordance with the relief and climate, the flora and fauna of the Armenian Highland exhibit a remarkably wide variety largely as a result of the changes in altitude.

The plateaus of Lori, Shirak and Kars are covered with mountain steppes mostly cultivated as fields of grain crops. Armenia is the country of origin of the cultivated variety of wheat. Among the trees the pine, cedar, oak, walnut, poplar, willow and fir are common in the forests of Armenia. In ancient times extensive forestations were made in Armenia. A part of these forests have survived and now cover the slopes of the Garni National park. From ancient times the artificial forest-plantings were also connected with the artificial irrigation. One of those is Khosrov forest in the Azat River gorge. The high mountainous meadows are rich pastures. From fruit trees are common: apricot, plum, peach, mulberry, silverberry, cherry, apple, walnut, pear and so on. Armenia is the motherland of apricot (*prunus armenicus*)³⁶. From ancient times grape has been cultivated in Ararat plain.

Since ancient times Armenia has been famous for viticulture. "Viticulture and winemaking played an important role in economy, social and cultural life in Armenia starting from the timing of formation of the complex societies, which chronologically corresponds to the so-called Late Chalcolithic period. The world's earliest known wine-making facility has been discovered during the excavation of Areni-1 cave in 2007 dating back to 6000 years (the beginning of the IV Millennium BC), also confirmed by archaeochemical analyses"³⁷.

In ancient and medieval times the fauna of Armenia was represented by a variety of mammals, birds, crawlers, insects and fish. Among the mammals the wild goat, wild sheep-mouflon, chamois, wild boar, dappled deer, antelope, bear, wolf, panther, lynx, fox, jackal, hedgehog, hare and cane cat were common in the mountains, forests and valleys of Armenia. The mountain lion lived in some parts of the Armenian Highland.

The birds of the Armenian Highland are amazingly varied. Hundreds of species have been identified in Armenia, among them the eagle, hawk, falcon, vulture, partridge, grouse, pheasant, quail, pigeon, egret, crane, wild goose and duck, francolin and lark. Among the reptiles some species of poisonous snakes are common, as well as coil and green lizards.

Since ancient times beekeeping has been practiced in Armenia; honey has been an important food in the diet of Armenians, according to the Greek historian Xenophon and the Armenian historian Movses Khorenatsi.

³⁶ Danielyan E. L., Armanu - Prunus Armeniaca: Originated in Armenia (historical background of the native land of apricot versus modern information challenges), «21st CENTURY», № 2 (16), 2014, pp. 79-94.

³⁷ Nelli Hovhannisyan, Marina Dallakyan, Aleksander Yesayan, Tamara Bagoyan, Gagik Melyan and Boris Gasparyan, Multidisciplinary investigation of identity of the "Areni" grape variety <https://goo.gl/3HtE6H>

The brilliance of flora of the country is enhanced by large species of multi-colored butterflies. By contrast some species of the locust greatly damaged fields and orchards. In the Middle Ages peasants had to kill them as a duty.

An insect known as the *Armenian red cochineal* lived in the roots of the cereal *Aeluropus*. The paint *red cochineal* made from this insect in ancient and mediaeval times was known by the name of the “Armenian paint.”

Several strong earthquakes occurred in Armenia (in 893 in Dvin, in 1319 in Ani, in 1679 in Garni, in 1840 in Masis (Akori village and St. Jacob's Church were destroyed), in 1926 in Gyumri, in 1931 in Zangezur, in 1937 in Yerevan, in 1988 in Spitak and Leninakan-Gyumri).

Greater Armenia, Armenia Minor and Cilicia included correspondingly the whole territory of the Armenian Highland, adjacent Armenian (Northern) Mesopotamia, as well as the coastal zones of the Black, Caspian and Mediterranean seas. A research on the Ottoman documents and publications revealed that “the government of Sultan Abdul Hamid II fallaciously substituted for the name Armenia such terms as Kurdistan³⁸ or Anatolia³⁹ and Turkish forgers started to use wrongly “Eastern Anatolia”⁴⁰ (instead of Western Armenia) in Turkish official documents and pseudo-scientific literature. They falsify even former Ottoman publications and maps in which Armenia is mentioned⁴¹. Contrary to such a fraud the truth is that the word stem of the term “Anatolia” is the Greek word ἀνατολή (“east”)⁴² and “Anatolia” relates only to Asia Minor.

³⁸ The present-day Kurds sometimes are mistakenly confused with the inhabitants of ancient Korduk (Corduene) (see: William Smith, A Smaller Classical Dictionary of Biography, Mythology and Geography, New York, 1883, p. 177). But Korduk was an Armenian region in Korchayk, the 6th Province of Great Armenia (Eremyan S., loc.cit., p. 108). As noted by N. Adonts, “immigration of Kurd tribes into Armenia” started only since XVI c., as a result of Selim I's expansionist policy (Adonz N., Towards the Solution of the Armenian Question, (London, 1920), Yerevan, 2007, pp. 51-52).

³⁹ Sahakyan L., Turkification of the Toponyms in the Ottoman Empire and the Republic of Turkey, Montreal, 2011, p. 12.

⁴⁰ Continuing genocidal occupation and re-divisions of Western Armenia and Kilikia, the present-day administrative division of the Republic of Turkey was established by the state-sponsored First Geography Congress, which was held in Ankara in 1941. Thus, the Turkish government continued the implementation of the plan to cover up the Armenian Genocide, at the same time, moving its military divisions to the borders of the Armenian SSR for purposes of aggression. Western Armenia was divided into the so-called “Eastern Anatolia” (with “Upper Euphrates”, “Erzurum-Kars”, “Upper Murat-Van”, “Hakkari” Subregions), “Southeastern Anatolia” (with “Middle Euphrates”, “Tigris” Subregions) Regions, “Eastern Black Sea Subregion”, and Kilikia was divided into “Adana” and “Antalya” Subregions of the “Mediterranean Region” (http://en.wikipedia.org/wiki/Regions_of_Turkey). An example of genocidal “territorial appropriation” propagandized in the Republic of Turkey is the program of “Turkish Geographical Society. Activity Report, 2010”, where a “three-year plan” (2010-2013) includes activities “in homeland (Internal and East Anatolian Fieldwork...)”, i.e. occupied Western Armenia is presented falsely as the “homeland” of Turkic nomadic invaders and their descendants - the genocide perpetrators.

⁴¹ Sahakyan L., op. cit., p. 21-22.

⁴² Liddell H. G., Scott R., Greek-English Lexicon, Oxford, 1966, p. 123. Byzantine imperial theme system in Asia Minor had been formed since the middle of the 7th century to protect the Empire from the attacks of the expanding Arab Califate (The Cambridge Medieval History, vol. IV, The Byzantine Empire, part I, Byzantium and its Neighbours,

G. Ripley and Ch. A. Dana noted: “Asia Minor, a peninsula at the western extremity of Asia... between lat. 36° and 42° N. and lon. 26° and 41° E., and bounded N. W. by the Dardanelles (the Hellespont of the ancients), N. by the sea of Marmora (Propontis), the Bosphorus, and the Black sea (Pontus Euxinus), E. by the Armenian mountains... S. by the Mediterranean, and W. by the Archipelago (the Aegean Sea)...”. With the same correct methodology Greater Armenia and Armenia Minor are depicted to the east of Asia Minor on the map entitled “Ancient Asia Minor”⁴³.

Henry Lynch (1862-1913) also correctly wrote: “I have invited attention to the characteristics which Armenia shares in common with her neighbours in the series of the Asiatic tablelands, Persia on the east and Asia Minor on the west”⁴⁴. An adequate geographic perception is present also in “The Encyclopedia of World History”: “Asia Minor, or Anatolia, is a peninsula stretching westward from the Armenian mountains to the Aegean Sea, with the Black Sea to the north and the Mediterranean to the south ... Armenia is a mountainous region lying between the Black and Caspian Seas” and at the time of King Menua (810-786 BC) the Urartian Kingdom included “the entire Armenian Highland area”⁴⁵. Thus, according to the historic sources and historiographical and geographical literature, Anatolia with all its parts (northern, southern, eastern and western) corresponds to Asia Minor situated to the west of the Armenian Highland⁴⁶.

The Turkish official circles’ anti-Armenian policy of distortion and falsification of the Armenian geographic names is targeted at deleting from the historical memory the indigenous place names of the western part of the Armenian Homeland - Western Armenia and Cilicia which suffered the genocidal devastation. D. M. Lang noted with distress: “It is difficult to convey the horror of events of 1915, as the Ottoman government set into action its design for genocide. In April 1915, the Armenian intellectual and community leaders in Istanbul (Constantinople - E.D.) were rounded up and transported in ships to their doom; among the victims were a number of priests, poets, doctors, and the great composer Komitas”⁴⁷.

The Kemalist and successive governments of the Republic of Turkey have continued obliteration of the Armenian place names in Western Armenia and Cilicia,

Cambridge, 1966, pp. 193, 194). The Anatolikon theme was in central Asia Minor, being settled by the army of the East.

⁴³ George Ripley and Charles A. Dana, *The American Cyclopaedia*. Vol. 1, D. Appleton and Company, 1873. Ancient country names and aboriginal peoples of Asia Minor (Hatti, Hittites, Kaska, Kizzuwatna-Cilicia, Troada, Mysia, Bithynia, Aeolis, Ionia, Doris, Lydia, Caria, Lycia, Pisidia, Pamphylia, Phrygia, Lycaonia, Paphlagonia, Galatia, Pontus, Cappadocia) are quite well known from ancient and medieval sources and maps.

⁴⁴ Lynch H.F.B., *Armenia: Travels and Studies*, vol. I, London, 1901, p. 439. 3 “The Encyclopedia of World History: Ancient, Medieval and Modern”, Sixth edition, Boston, 2001, <http://worldhistory.50webs.com/111.html>; <http://worldhistory.50webs.com/116.html>; <http://worldhistory.50webs.com/118.html>

⁴⁵ Lynch H. F. B., *Armenia: Travels and Studies*, vol. I, London, 1901, p. 439.

⁴⁶ Zohrabyan L.N., *Orography of the Armenian Highland*, Yerevan, 1979, p. 14-15 (in Russian) Danielyan E., *Problems of the History of Ancient Armenia in the Historiography*, *Patmabanasirakan handes*, 2003/3, p. 30-37 (in Arm.).

⁴⁷ Lang D. M., *op. cit.*, p. 288.

forging the political-administrative map of the occupied territories⁴⁸ by eliminating the native names, translating the indigenous place names into Turkish or inventing Turkish ones, alien to the indigenous Armenian environment.

Over the centuries the enemies seized the most part of the Armenian territories. The greatest human and territorial losses took place particularly because of Turkish genocidal policy since the late 19th and early 20th centuries in the Ottoman Empire resulting in the Armenian Genocide of 1915-1923 committed by the Young Turk and Kemalist regimes. In both the Soviet and post-Soviet periods falsifications of the history of Armenia and its place names have also been perpetrated by the artificially introduced unit of "Azerbaijan"⁴⁹. After the Artsakh Liberation War (1991-1994) the defeated aggressive Republic of Azerbaijan has been using these falsifications in the militaristic propaganda against the Republic of Armenia and the Nagorno-Karabakh Republic (the NKR) (Artsakh). The Republic of Armenia (29.743 km²) and the Republic of Artsakh (12.000km²) together constitute the one-thirteenth part of the Armenian lands in the north-east of the Armenian Highland.

⁴⁸ "Cartographic war" (Danielyan E., "Cartographic War" and the problem of protecting Armenian placenames. - <http://blog.ararat-center.org/?p=160>, Danielyan E., Armenia and Armenian toponyms, «VEM» 2009/1 (26), p. 9-25 (in Arm.); Ayvazyan A., Western Armenia vs. Eastern Anatolia. Europe and Orient, Journal of the Institute Tchobanian, Paris, 2007, N 4, pp. 57-58) is waged also against history and historical geography of the lands far away from Armenia. Commenting on the militaristic pan-Turanic policy during WW II A.A. Chichkin notes: "Indeed, along with military preparations of Turkey at the borders of the USSR, since the autumn of 1941 in Turkish media were published geographic maps of the future state" and Turkish aggressors stated: "The border of Turkey is far away beyond the Caucasus and the Caspian Sea... Volga - the River in which our ancestors watered their horses" (Chichkin A., The syndrome of the Ottoman empire, Century. Informational-analytic publication of the foundation HISTORICAL PERSPECTIVES, 22.05.2012 http://www.stoletie.ru/territoriya_istorii/sindrom_osmanskoj_imperii_253.htm)(in Russian).

⁴⁹ This name has been stolen from Iranian Adarbaigan/Azerbaijan (derived from the ancient geographic name Atropatene). At the end of May 1918 "Eastern-Caucasian Muslim Republic" appeared (see Avetisyan H., Armenian question in 1918, Yerevan, 1997, p. 285 [in Arm.]) or "the Tartar Republic of Azerbaijan" ("Christian Science Monitor", 05.08.1919, Haykaram Nahapetyan, Publications in American Periodicals Concerning Nagorno-Karabakh in 1918-20, http://www.noravank.am/eng/articles/detail.php?ELEMENT_ID=3534) and so on, as a result of pan-Turkic projects.