The Ancestors of Today's Poles with the Haplogroup R1a

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Abstract The work is about Indo-Europeans in general, which means people possessing R1a haplogroup (and following mutations) of Y-DNA, as per inheriting from father to son. Those possessing R1b, who dominated western Europe, have little in common with India and Iran. Our interest is in the group of Indo-Europeans who evolved into Slavs and, in particular, modern Poles. The article shows that the area of today's Poland was probably the cradle of people and language that gave origin to other Indo-European peoples (Aryans, Scythians, Persians, Slavic) and their languages. Today's Poles are the nation with the highest frequency of R1a haplogroup. Genetic, linguistic and anthropological-cultural studies indicate that the origin of Poles is ancient, directly from the ancestors of the Lechites or Lekhs described in the chronicles. There are also grounds for claiming that the Lekhs' connections with people from Aryans are both genetic (biological) and cultural. The author provides daring hypotheses and proceeds to check them through logical deduction (inductive-deductive method), while trying the synthetic approach to the problem and using a multidisciplinary approach. Hypotheses checks and logical justifications are backed by research results in genetics, linguistics, cultural anthropology, ancient history and hopology – which deal with weaponry and warrior cultures.

Keywords Indo-European, Aryan, Scyth, Slavic, Lechite, Pole

means people possessing R1a haplogroup and following mutations of Y-DNA (we analyze haplogroups in the male Y chromosome), as per inheriting from father to son. Those possessing R1b (another mutation in haplogroup R1), who dominated western Europe [4], have little in common with India and Iran. Our interest is in the group of Indo-Europeans who evolved into Slavs and, in particular, modern Poles.

Germania – as Romans called the area north of the Alps and east of Gaul – was initially, from about 2000 B.C.E., settled mainly by the Protoslavs or Slavs, as is presented by Haarmann [27: 249-258]. Frankfurt am Main could have been a border town of Francia and legendary Lechia. Of course, we cannot uncritically and literally treat the contents of medieval chronicles and legends. However, it is worth looking for a rational nucleus, as in the case of the Iliad and the excavated Troy. Modern Germans call those primal dwellers of Germania *Wenden* or *Winden* (Wends). Germanic peoples and languages were created as a result of mixing between pre-Indo-European and Celtic elements with some Slavic influence [17].

Indo-Europeans and Slavs are terms used by linguistics; they are representative of specific language families, used by those peoples. "Early Slavs" is a substitute term for naming modern Slavs' ancestors. While having a specific haplogroup and using a specific language is not directly connected (like in magyarised Danube Slavs in Hungary), such correlation is common. Luigi Luca Cavalli-Sforza suggested there is a link between Y-DNA and languages. The publication *Cultural Transmission and Evolution: A Quantitative Approach* [7] made use of models from population genetics and infectious disease epidemiology to investigate the transmission of culturally transmitted

1. Introduction

The thing is about Indo-Europeans in general, which

units, such as for instance language.

The aim is to clarify the issue of the proto-Slavic roots of today's inhabitants of Poland. The author provides daring hypotheses and proceeds to check them through logical deduction (inductive-deductive method) while trying the synthetic approach to the problem and using multidisciplinary approach. Hypotheses checks and logical justifications are backed by research results in genetics, linguistics, cultural anthropology, ancient history and hopology – which deal with weaponry and warrior cultures.

The author's zero hypotheses is a thesis in favour of the autochthonous theory of Polish origin: Genetic studies proved the autochthonic theory of Polish origin. Many data indicate in general the ancient origin of the Slavs. Is the Sarmatian myth finding a rational justification today?

2. Pre-Aryan Roots

We can equate Aryans to Early Slavs. It is due to a shared genetic trunk. It concerns mainly the ancestors of modern Western Slavs (in particular, from Lechitic language family), and partly – other modern Slavic nations. The frequency of R1a distribution is covered in table 1 in the next part of this document.

Common ancestors of Aryans and Slavs used to live in Germania, Lechia and along the Danube about 3700-2800 B.C.E., they used some form of Ario-Slavic language, possibly divided into several dialects. Then the Aryans (R1a-Z93 and Z94) migrated to the East. Their genetic presence in the northern part of the Eurasian Steppe and in the vicinity of Chelyabinsk in Ural (archaeological culture Sintashta-Petrovka or Sintashta-Arkaim) is confirmed by archaeological research [2]. War chariots were found in their graves. They produced bronze tools and they were excellent horsemen. They started the Indo-Iranian languages and three great kingdoms – India, Persia and Scythia.

About 2800-2600¹ B.C.E. Early Slavs have already settled areas in Middle and Eastern Europe, between Elbe and Don. About 1500 B.C.E. Aryans entered India, bringing the language (Sanskrit) and wisdom (the Vedas) with them. Areas between Elbe and Dnieper overlap with Lusatian archaeological culture (1300-400 B.C.E.), examples of which are Biskupin and a number of similar fortified settlements. Great Lechia from Wincenty Kadłubek's chronicle [52], on the other hand, was supposed to reach from Danish isles as far as to Iran, just like Great Scythia. Is it but a strange coincidence?

Lineages related to R1a-Z282 were connected to common societies of copper and early bronze age, they reached from the Rhein to the west to the Volga in the east. "Slavic culture emerged in Central Europe on Vistula. Maybe in this cultural context hg R1a-Z282 diversified in Central and Eastern Europe." [51]. It would be true with chronicles and legends.

Ptolemaeus Claudius [41] counted tribes living in Vistula's basin as Sarmatia. This Greek geographer cites Slavic sounding names in Scythia: Suovenians or Suobenians and "Serbi". While Caesarius of Nazianzus (4th century) [6] – used the name: Sclaveni, which means Slavs. Through that, it can be supposed that the country along the Vistula named Sarmatia was inhabited by ancestors of modern Poles. In modern days prof. Czekanowski [18], among others, confirmed the existence of a pre-Christian Lechitic country. "Lech" was a ruler's title [22: 45]. Country's name – Lechia – would be derived from "Lech".

Sarmatians were related to Scythians, hailing from the same cultural, and maybe genetic, trunk (currently it is impossible to clearly denote it). They took over the Scythians during their migration west, reaching Danube in I C.E. They settled on the Danube and in Lower Carpathia. "Etymological clues indicate that Croats could have been Slavicised Sarmatians" [20: 78]. Nestor of Kiev [38] also stated that Lechitic peoples arrived from over the Danube and that Croats are Lechitic tribe's forebears. It does not only apply to Croats. Also, Poles, Slovaks and eastern Slavs (Lechitic Polans and Lendians' inheritors?) are maybe inheritors or relatives of the peoples who inhabited Scythia or Sarmatia, or at least they have genetically common ancestors.

3. Genetic Studies Outcomes

Modern genetics, as a science discipline, makes it possible to explain what used to be different, often mutually excluding interpretations of archaeologists and historians. Peter Underhill's team [51] marks Poland as a cradle of Slavic R1a branches². Those who possess R1a, called by Klyosov "Arians" [32], took control of large parts of central and eastern Europe, reaching Norway and Iceland as well (table 1).

¹If we accept as evidence the discovery in the skeletons of the cordial culture representatives from Eulau and Labba hg R1a1, so dated. Only we do not know if they were Scythians or Slavs?

²Of course, today's inhabitants of Poland are not a genetic monolith; however, hg R1a is dominant here.

Table 1. Frequency of whole R1a haplogroup distribution in Europe

Country or region	R1a haplogroup occurrence [%]	Which hg is dominant [%]
Slovakia, Spisz - Poles	73	M458
Poland - Poles	57.5-64	27-30 – M458; and about 23-26 – M558/CTS1211
Germany, Lusatia – Sorbs	51-63	M458
Ukraine	44-50	about 20 – M458; and M558
Slovakia	42-44,2	26.5 - M558
Belarus	35.9-51	about 20 – M558
Russia	36-50	20-30 – M558
Russia – between Kursk and Moscow	+60	M558
Russia – over Kaluga	+50	M558
Russia, Altay – between Kyzyl and Novosibirsk	50-60	Z93 (we omit Iran and the countries of Central Asia, as Kyrgyzstan, +60 – Z94, L657)
Latvia	40-41.5	24.6 - M558
Lithuania	36.7-38	15.2 - M558
Slovenia	36.5	29.7 - M558
Czechia	31-35	18-30 – M458
Estonia	30.9-33	19.7 - M558
Moldavia	29.8-30.5	20 - Z93; and M558
Norway	27-30	21.5 - Z284
Austria	26	10.9 – M558; 7.5 - M458
Croatia	24-25,7	20.6 - M558
north-east Germany	24	M458
Hungary	21.5-32	19.8 - M558
Iceland	20.9-23	Z284
Sweden	16-19	10.1 - Z284
Romania	18-19.9	10.3 – M458
Germany	16-20	6.4 – M458
Bosnia-Herz.	18	16.2 - M558
Serbia	18	12.4 - M558
Bulgaria	17	8.2 - M458

[source: 17, and Eupedia, 2018]

The basis of this genetic relation is a frequent occurrence of R1a haplogroup and its most important subgroup, marked: M417 (also known as R1a1a1; it is the most frequent big subgroup of R1a), as well as later developed subgroups M458 (R1a1a1b, currently most frequently appearing in eastern Europe in Czechs, Slovaks, Poles and western Belarussians) and Z93 (R1a1a2, currently most frequent in Altay, south Siberia, Kyrgyzstan and Iran). In the area inhabited by Scythians and Sarmatians dominate subgroups Z93 and M417, and Poland itself is the undisputable epicentre of M458 (estimated frequency in Polish population is 20%, while outside of central and eastern Europe it does not exceed 7%) and M558 occurrence (estimated frequency in Poles exceeds 26%; this group only appears so frequently in Western Belarus and Russia, while in Western Europe it is 10 times less common) [51].

Lack of foreign genetic influence suggests that Slavs

are autochthons of lands stretching from the Oder to the Dnieper, and from the Baltic Sea to Carpathia. Genetics also excludes the theories of, so called, eastern origin of the Slavs. People living in what is today's Poland from 200 B.C.E. to 500 C.E. (called Geats, Goths or Vandals by some researchers) possess identical Mt DNA, as modern Poles [31]. Those live here continuously from at least 200 B.C.E. [31], where some geneticists extend this period to about 4000 B.C.E. [37, 25].

4. Linguistic Justifications

Also, the languages and beliefs of Arias and Scythians are very similar to Lechitic tribes' languages and beliefs of primal Slavs. Traces of the beliefs can be found in myths, legends and chronicles, as well as in symbolism (for example the Sun symbols) [48, 15, 21].

Languages used by Scythians and primal Slavs were most likely similar [30, 39]. As soon as 1857 Polish orientalist Ignacy Pietraszewski [40] was proving that Avestian and Polish languages are closely related. It was an important discovery because Slavic languages are in reality more similar to languages of ancient Iran and India, than any other European languages. What is emblematic, Avestian language contains a nasal vowel (ǣ), and today similar phones (*q* and *ę*) only appear in Polish. Reczek [42] pointed out, that if Schelesnikier (he cited two of his works) is right, we are dealing with an extremely archaic morphological Slavo-Iranic convergence. It is amongst others about endings of words in declension. Also, many similarities between Polish and Sanskrit occur [47]. Maybe it is better to use the term “Ario-Slavic languages” [15], instead of “Indo-Iranic” and “Balto-Slavic”? Primal satem languages, which construct the trunk of the Indo-European language family are concerned.

Slavs’ autochthonism in biological continuance in the area of today’s Poland is confirmed by linguists, or at least, they are inclined to such thesis [1, 5, 16]. Witold Mańczak proved that in the light of statistical data, original habitat of Indo-Europeans overlaps with the habitat of Slavs. That means it was located in Vistula’s and Oder’s basins. Baltic tribes on the other hand emerged as a result of migration north and meeting Finno-Ugric peoples [36: 89–144], *nota bene* with haplogroup N. So, the language of Vandals/Wends was an early Slavic language [34, 3].

5. Other Cultural Relations

Apart from Sarmatian tradition in Polish nobility, similarities occur in ethos and customs [10]. Similarities of Scythian and Sarmatian design to contents (iconography, symbolism) of some Polish coats of arms were proved [14]. While in the legends of Polish noble families references to direct Scythian origin can be found [8: 209-230]. Makuch [35] sees also Iranic and Scythian mythologies’ influence on Polish and Czech chronicling. B. A. Dębek [21: 45-83] describes similarities of beliefs, funeral rites and (solar) symbolism quite broadly.

Similarities are present also in the art of war.

„Scythians created (...) a specific culture of warriors (*cultura militum, cultura militaris*). They named themselves Skolotoi, which means archers. Maybe this is the origin of the name Sclaveni, so Slavs? Every adult Scythian was a warrior. In those times an “archer” so a warrior fought mainly on horseback. Steppe nations were usually more mobile than settled nations’ armies. Horseback archery was a domain of the people from the Eurasian Steppe. Scythian scale armour [45] could have been taken from Assyrians or vice-versa. Assyrians on the other hand most likely derived horse archer military units from Scythians.

Scythians were the inventors of a recurve bow also known as Scythian bow [43, 49]. (...) Apart from bows they used spears, javelins, axes, horseman’s picks and *akinakes* swords as well as lariats.” [17].

Military units of the First Polish Republic only exchanged a sword for a sabre which was more convenient during combat on horseback [48, 19, 35, 14]. For centuries Poles fought mostly on horseback. From 16th to 18th-century Polish winged hussars proved to be an especially formidable cavalry unit, victorious in numerous battles [12, 13, 46, 44]. Did Poles inherit that trait from their ancestors?

Polish chroniclers mostly agree that Krak ruled in the same years as Xerxes I (5th century B.C.E.). This Krak was supposed to lead Slavic tribal confederation’s warriors, win over the Celts, become a king and found Kraków (Wawel). Both Scythians and Lechites were judged on a basis of their brave spirit and body endurance [35: 213, after: 52: 21]. According to Lechitic country’s extent in the master Wincenty’s chronicle, Great Scythia reached from the Danube to Iran [35: 199-200, after: 52: 11]. Does it mean that Polish chroniclers praised Scythian kings? Master Wincenty known as Kadłubek wrote that our brave ancestors won over Danish isles residents and made their country a fief [52: 1208, book 1, chapter 2: 9-10]. It happened on Lechia’s north-western frontier. Lechites won over Celts, extending Lechia to Carinthia, Bulgaria and Parthia in the south [52: chapters 3-4: 11].

Jan Długosz [22: 22] wrote that “Lech, father of Lechites, so Poles” reigned before 5th century B.C.E. Lech’s country extended from the Elbe in the west to the Dnieper and the Dniester in the east and from the Sarmatian Sea (Baltic Sea) in the north to Sarmatian Mountains (Carpathian Mountains) in the south. Rus was supposed to be Lech’s descendant. After the reign of twelve Voivodes about 500 B.C.E. Krak I reigned and he conquered the Gauls and subjugated Czechs [22: 54].

Pre-Christian Lechia was a country of Slavic tribes that were never won over by the Romans. Only Franks – the army of Charlemagne – won over the Lechites in 765, which coincides with the fall of the Popielids dynasty. This is according to both the above-mentioned old Polish chronicles.

6. Discourse

“German archaeologists of tendential and chauvinistic attitude who supported ethnic method of Gustaw Kossina’s school only saw German peoples in the discussed area in late La Tène period and identified Przeworsk culture with Vandals and Oksywie culture with Burgundians” [23: 179]. Polish archaeologists, on the other hand, proved the continuity of Slavic settlement in Vistula’s and Oder’s basin [33]. Lechitic Slavs’ presence in today’s Germany is concluded also by some German

researchers [27].

Early Slavs with R1a haplogroup in Sorbian Eulau on Soława (Ger. *Saale*) already existed in 2700 B.C.E. [26]. A battle on *Tollense* (*Tolęża* or *Dolęża*; about 1250-1200 B.C.E.) was fought between a few thousand warriors [9]. Lechites (or their ancestors with R1a) had to be already decently organised since they most likely won. It is supported by a fact of settlement of this area – in the vicinity of ancient keeps of Rostock and Rethra (Lechitic tribes of Tollensians and Redarians) – through the ages to come.

According to Zbigniew Gołąb, ancestors of Polish people lived in the area from the Oder to the Don since 700 B.C.E. Maybe they were “Scythian farmers” also known as “ploughing men” [20: 73]? It would be between 5th century B.C.E. and 5th century A.D., according to Gołąb [24: 166], the Budinians, a nomadic tribe, mentioned by Herodotus [29], living in the woods and steppe in between the Dnieper and the Volga, neighbours of Scythians and Sarmatians, could have been the Early Slavs. Despite their nomadic lifestyle they built wooden keeps. They took part in a war with a Persian king Darius about 513 B.C.E. as Scythian allies.

In 1st century, the area of today's Poland and Ukraine were occupied by – in ancients' writings (Strabo, Tacitus, Ptolemeus [41]) – “a great nation of Lugii” (Lendyans?). Next, the Slavs were being related with Wends (among others, a gothic historian Jordanes, in the 4th century) [23: 176-177]. Amongst the first West Slavic statehoods is Great Moravia – 805-907 A.D., that unified part of the lands and tribes, including the Principality of Nitra (Slovaks) and Vistulan Duchy (today's Lesser Poland). Later the centre of the Slavic world moved to Prague (Czechs) and to Gniezno (Polans). It may be assumed that Lechitic kingdom existed in today's Poland long before duke Mieszko I and king Bolesław I the Brave (967-1025), who for example, united a significant part of Lechitic lands. The list of Polish and Lechitic rulers compiles 14 figures before Mieszko I [50: 9].

In a concept of fighting men's anthropology [11] it proved that warlike Polans united Polish lands and could stand against German expansion. “On the basis of bravery and courage, the notions of honour and dignity were built as well as whole ethical systems and noble behaviour codes. Military cultures developed rules of discipline and obedience, moral norms and idealism of ambitions.” [11], and it applies to war traditions developed since the Early Slavs' arrival on the Vistula. These ancient ancestors were probably the first Indo-Europeans – Ario-Slavs (Proto-Aryan and Proto-Slavic) with the dominant haplogroup R1a1 Y-DNA.

Norman Davies presents Polish lands from Western Pomerania and Lusatia to the west, to Smolensk and Zaporizhia to the east; from Livonia to the north, to Moldova and Black Sea's coast to the south [20: 26]. He marks, among others, Red Ruthenia (*Ruthenia Rubra*),

with Lviv as main city, as an ethnically Lechitic land, nota-bene partly Ruthenised by Orthodox Church. Ukraine started farther east – it lied on both banks of middle Dnieper (Kiev, Braclaw and Chernihiv Voivodships) [20: 59-60].

More and more archaeological, anthropological, genetic and linguistic evidence supports the abandonment of the allochthonous theory in favour of a full confirmation of the theory of the autochthonous presence of the Proto-Slavic people in the area of Lusatian archaeological culture [53, 54]. They were probably the direct ancestors of today's Poles and other Western Slavs, and to a large extent also Eastern Slavs. There was no settlement gap, but the permanent settlement of the areas indicated above. As a result of the research carried out in the Odra and Vistula river basins, “high biological similarity between the population inhabiting these lands since ancient times” was found [54]. Moreover, genetic studies of haplogroups of mitochondrial DNA in a new archaeological and archaeo-genetic research confirm that people inhabiting the southern territories of present-day Poland are genetically close to earlier communities from these areas before 2000 BC [55].

7. Conclusions

The confirmation of the hypothesis is an original opinion in a long-standing academic dispute of Polish supporters of autochthonic theory and its opponents. Genetic studies proved the autochthonic theory of Polish origin to be true at least as by the 2nd century BCE or possibly about 2000 BCE. The Polish nobility's myth was its Sarmatian origin, a myth that proved to be true partially culturally and partially genetically. The Scythian and Slavic peoples grow out of the same Indo-European genetic trunk, or rather, they are branches of the same thicker limb.

New research directions and ideas should take into account subsequent genetic tests, both Y-DNA and mtDNA, preferably fossil DNA. The territory of Poland is becoming an interesting area of archaeological research. It is also worth continuing interdisciplinary systemic research. A series of hypotheses have yet to be tested.

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