The Problem of the Caucasian Sprachbund.

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In memory of Helma van den Berg,
a fine Caucasian linguist and a dear friend.

The aim of this paper is to demonstrate the fact that by many parameters, which involve all levels of linguistic structure (phonology, morphology, syntax, lexical semantics and lexicon), the Caucasus constitutes a linguistic area. The totality of numerous features shared by the two mutually unrelated indigenous Caucasian linguistic families (North Caucasian and Kartvelian) could be interpreted in terms of the Caucasian Sprachbund; this does not preclude the postulation of parallel smaller Caucasian Sprachbünde.[1]

1.   Linguistic area or Sprachbund.

Languages spoken in geographic proximity over a considerable period of time always interact and develop common traits. This is most visible in the diffusion of local geography- and culture-specific lexicon, as envisaged, for example, in the Carpathian region. Such language clusters will not however qualify for a language union, unless the diffusion involves substantial layers of linguistic structure, most importantly grammar. The term "linguistic area" refers to a situation when two or more languages, genetically distant or unrelated, exhibit a specific set of shared features on phonological, morphological, syntactic and lexico-semantic levels, or on several of these levels, which are explainable not in terms of genetic inheritance, universal tendencies or "elementary kinship"[2], but in terms of language contact and convergence (borrowings, calques, contact-induced developments, substrate).

Another term used to designate a secondary linguistic community (as opposed to the "primary" community based on genetic relationship) is "language union", often called by its German prototype *Sprachbund*, itself a calque from Russian *jazykovoj sojuz* "language union". It

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[2] Here the words belonging to baby talk (*mama, papa,* etc.), or onomatopoeic (descriptive) vocabulary are meant, which look similar in many unrelated languages across the globe.

seems that it was Nikolai Trubetzkoy who first introduced this term in his 1923 paper published in a Russian émigré magazine.[3] But even earlier, in his 1904 article, the Russian-Polish linguist I.A. Baudouin de Courtenay stressed the distinction between the affinities which are explained by the genetic relationship of languages (*rodstvo*) and those which are caused by convergence (*srodstvo*). As an example of the latter he referred to "the common features of the languages of the Balkan peninsula, the languages of the Caucasus, etc., completely irrespective of the presence or absence of their ancient genetic relationship. In view of all this, beside the genetic relationship of languages we have to accept also their convergent relationship [*svojstvo*, *"porodnenie"*] as a result of the mutual influence...".[4]

Like his elder colleague Baudouin de Courtenay, Trubetzkoy also cited the Balkan languages as a striking example of a language union in Europe. Furthermore, he specified that a language union can be formed not only between individual languages, but also between language families, leading thus to a "union of linguistic families" (*sojuz jazykovyx semejstv*). As examples of bigger unions he cites "the union of Uralo-Altaic language families", consisting of unrelated Uralic, Turkic, Mongolian and Manchurian families, "the union of Mediterranean language families", based on the nominal distinction of grammatical gender and the ablaut phenomena, which unite the Indo-European, Semitic, Hamitic and North-Caucasian families, as well as some extinct languages of the Mediterranean basin. Besides, according to Trubetzkoy, one and the same language or language family can belong at the same time to two different language unions, or fluctuate between the two unions, such as Indo-European, fluctuating between the Mediterranean and Uralo-Altaic unions (Trubetzkoy 1995: 333).

In his 1928 paper, written in German, Trubetzkoy defines the Sprachbund (here the term first appears in its German form) in the following way: when groups of languages display (1) considerable similarity in syntax; (2) similarity in principles of morphological structure; (3) a big number of common cultural words, and sometimes also (4) surface similarity in sound systems, whereby, however, they do not display any systematic sound correspondences, any correspondences in phonetic shape of morphological elements, and any common elementary vocabulary – such language groups can be called Language Unions ("Sprachbünde").[5]

Sometimes the postulation of a language union is based not on several parameters of the linguistic structure, but on a single isogloss only. Within this approach one can speak about such cases as a phonological union (cf. N. Trubetzkoy's notion of the "Caucasian phonological union"[6] based on the presence of glottalized consonants, R. Jakobson's phonological union of

[3]Trubetzkoy (1923); reprint in Trubetzkoy (1995: 333).
[4]Baudouin de Courtenay (1904); cited from Šaradzenidze (1983: 70-71).
[5]Trubetzkoy (1928: 18), cited from Tuite (1999: 2).
[6]Trubetzkoy (1975: 393-4); cited from Tuite (op. cit., p. 3).

languages from southern Alaska up to Central California, based on the distribution of the correlation of glottalization, the "palatalizing" Eurasian union[7], the distribution of retroflex consonants over unrelated languages on the Indian subcontinent)[8], a morphological union (common morphological traits as the primary feature of the Balkan union), a syntactic union (cf. mainly syntactic features of Standard Average European[9]). A more standard approach to a language union presupposes, however, a set of specific to a particular area linguistic isoglosses/traits that relate to several layers of the linguistic structure.

The presence of grammatical (morphological, syntactic) similarities between distantly related or unrelated languages spoken in geographic proximity is crucial for the postulation of a language union. On the other hand, it would probably be a too limited approach to regard only common grammatical traits as indicative of a Sprachbund, to the exclusion of phonetics/ phonology, lexicon and phraseology. Though the Balkan Sprachbund is being defined in nearly exclusively grammatical terms, in India the area-defining common traits do include phonological features (specifically, the presence of retroflex consonants) among the basic indications, beside morphology and syntax, of the pan-Indian linguistic area (cf. Masica 1976: 187). In fact, it is often phonology which is initially affected by the convergence process (cf. Aikhenvald and Dixon 2001: 17), especially intonation patterns.

From the point of view of postulating a linguistic area, it is not necessary that a certain linguistic trait be a unique property of this particular zone not found beyond its boundaries. More important is that this trait, even if not unique in itself, is specific enough to make a meaningful contrast with languages outside this area, and that, together with other traits, it forms a set or cluster of features shared by the languages of this area. These common specific features can be both positive and negative, as contrasted to the presence vs. absence of such features in the languages outside the area.

Generally speaking, related languages, due to their origin from an ancestral idiom spoken in a concrete location, tend to cluster in close geographic areas, with the exceptions explained by migrations. But even if people migrate, various groups speaking related idioms, after some period, can meet in a new territory and again become neighbours. In both cases this can lead to the situation when the related languages form a secondary linguistic community, irrespective of their actual relationship. Cf., especially, the spread of the IE languages in Europe, where different distantly related idioms, after their split from the proto-language and a period of separate development, again came into contact on a new territory and formed secondary

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[7] Jakobson (1985: 102-104).
[9] Cf. also Martinet's (1949: 26) definition of a "phonological area" as an area "in which genetically different or divergent languages show similar phonological features".
[9] Aikhenvald and Dixon (2001: 12).

communities in new configurations (e.g. Baltic and Slavic, Celtic and Germanic, Greek, Albanian and Slavic, etc.).

A secondary linguistic community can be genetically homogeneous and include only related languages, as is, in general, the case in the Balkans, or be genetically heterogeneous, like the languages in India and, as I shall argue below, in the Caucasus. In the second case it is much easier to determine the areal nature of the shared linguistic features: if languages are known to be unrelated, explanations for their structural similarities may lie primarily in the contact. If the neighbouring languages are related, it is much more difficult to distinguish between the genetically inherited structural traits from those acquired via later contact and parallel development. This is exactly the situation within the Abkhazo-Adyghean, Daghestanian and Kartvelian-speaking areas. All languages inside these groups have developed in millennia-long contact. The case of the Balkans is easier to diagnose in this respect, as some languages forming the Sprachbund, although related, have their sister-languages outside this area, which facilitate the task of sorting out the contact-induced and genetically retained phenomena.

The situation is even more complex when we register similarities between neighbouring languages or families with uncertain genetic relations between them. In this case possible Sprachbund features, including lexical and phonological similarities, can create a wrong impression of family-like affinity, as happened, for example, in the history of the Caucasian linguistics. Thus, the authors of "The Structural Affinities Between the Caucasian Languages" (Klimov 1978), because of the unclear nature of relations between the three native Caucasian groupings, were hesitant whether to attribute the numerous structural affinities observed between them to (distant) kinship, or simply to universal properties and tendencies.

As to the types of convergence patterns between the languages or language families, there can be cases of unilateral convergence, when one language (family) develops in the direction of the other, bilateral convergence, when two languages or families influence each other, and multilateral convergence, when more than two languages or families converge, developing in parallel directions.

One can talk also of a centre and periphery of a linguistic union, whereby certain traits concentrate within the core language(s) of the area, but become rarer towards its periphery. This should not be understood in purely geographical terms: one and the same geographic area can contain languages which belong to the core of the union and those belonging to its periphery, while still others might not belong to this cluster at all. This often happens in "residual zones" (cf. Nichols 1992), for instance, in the Caucasus, when new languages are being added to the long-existing linguistic communities.

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We can now turn to the central topic of this paper: what can be said of the indigenous languages of the Caucasus? Do they comprise a single genetic taxon, or simply a group of unrelated language families? And, related or not, do they form an areal unity? Intriguingly, every one of these options has its proponents and opponents. These are the issues which we will be dealing with in the following parts of this paper.

2.   The languages spoken in the Caucasus.

Only three genetic groupings are known to be indigenous and were spoken in the Caucasus area well before the appearance here of Indo-European, Turkic or Semitic languages: Abkhazo-Adyghean, or N(orth-)W(est) C(aucasian), spoken in the north-western Caucasus and western Transcaucasus; Nakh-Daghestanian, or N(orth-)E(ast) C(aucasian), spoken in the north-central and north-eastern Caucasus, and Kartvelian, or S(outh) C(aucasian), spoken in the southern Caucasus.

Apart from these indigenous Caucasian idioms, there are also Indo-European Ossetic, Armenian, Tat, Talysh, Kurdish and Russian and Turkic Azeri, Turkish, Karachay-Balkar, Kumyk and Nogay. Besides, one can add here also Indo-European Greek, and Semitic Neo-Aramaic (called in the Caucasus Aysor).

Table 1. Languages spoken in the Caucasus.

Language family	Branch	Group	Language(s)
Kartvelian (or South Caucasian)		East Kartvelian	Georgian
		West Kartvelian	Megrelian, Laz
		Svan	Svan
	North-West Caucasian	Abkhaz	Abkhaz, Abaza
		Circassian	Adyghe, Kabardian
		Ubykh	Ubykh
		Avar	Avar
		Andi	Andi, Akhvakh, Karata, Botlikh,

North Caucasian	North-East Caucasian		Godoberi, Bagvala, Chamala, Tindi
		Tsez	Tsez, Khvarshi, Hinukh, Bezhta, Hunzib
		Lak	Lak
		Dargi	Dargi (with Kubachi, Megeb, etc.)
		Lezgi	Lezgi, Tabasaran, Aghul, Rutul, Tsakhur, Udi, Kryz, Budukh, Archi
		Khinalug	Khinalug
		Nakh	Chechen, Ingush, Bats
Indo-European	Iranian	North-Eastern	Ossetic
		North-Western	Talysh, Kurdish
		South-Western	Tat
	Armenian		Armenian
	Slavic	East Slavic	Russian
	Greek	Northern	Pontic Greek, Tsalka-Alaverdy (< Cappadocian)
Turkic		North-Western (Kypchak)	Karachay-Balkar, Kumyk, Nogay
		South-Western (Oghuz)	Azeri, Turkish
Afroasiatic	Semitic	West-Central	Neo-Aramaic (Aysor)

The antiquity of the autochthonous Caucasian languages in the areas they are spoken now is beyond any doubt. It is generally assumed that "Northwest Caucasian, Northeast Caucasian and Kartvelian all apparently arose in or near their present territories" (Nichols 1992: 14). Another generally accepted view is that these languages have been in close contact with each other for a very long period of time. Though migrations and language change did take place in one or another direction, the main configurations of the three groups have been relatively stable over millennia, which is corroborated by linguistic, archaeological and anthropological data. For example, historians find it possible to connect the ancestors of the two North Caucasian groups with such early Bronze Age archaeological cultures as the dolmen and Maykop cultures in the

western Caucasus and the Kuro-Arax culture in the southern Caucasus (second half - the end of the 3rd millennium BC; cf. Fedorov 1983: 28-31, 41-42).

3.   Multilingualism in the Caucasus.

Before the introduction of Russian, the Caucasus has never had a single dominating language or *lingua franca* as far as is known. The current nearly universal knowledge of Russian is a recent phenomenon, starting from the time the whole Caucasus was incorporated into the Russian Empire (around 1864). Before that, in many parts of the Caucasus it was multilingualism that served the communications needs of neighbouring heterolingual communities. Multilingualism was the norm in many Caucasian communities, though its scope was not the same in various parts of the Caucasus. Daghestan is a classical example of a multilingual polyglottal area. In other parts of the Caucasus multilingualism was not that widespread, and the population at large, especially in its core territory, was monolingual. Thus, in western Georgia, until the beginning of the 20th century, the level of knowledge of Georgian was rather low in Megrelia and Svanetia, and both Megrelians and Svans became actively bilingual (native+Georgian) only with the introduction by the Soviets of universal education, which in Megrelia and Svanetia was conducted in Georgian. Likewise, major parts of the mainland Adyghe, Kabardian, Abkhaz, Georgian, Azeri, and Armenian populations were traditionally monolingual, though in mixed communities and in borderlands bilingualism (Ubykh-Abkhaz, Ubykh-Circassian, Abkhaz-Megrelian, Svan-Megrelian, Svan-Georgian, Megrelian-Georgian, Bats-Georgian, Ossetic-Georgian, Georgian-Armenian, Georgian-Turkish, Armenian-Azeri, Daghestanian-Azeri, etc.) was more common.

Several situations obtain:
1. Symmetrical bilingualism/multilingualism, when members of the neighbouring communities are competent both in their own and in their neighbour(s)'s language(s).
2. Unilateral bilingualism/multilingualism, when a community speaking a certain language is also competent in its neighbour(s)'s language(s), but not vice versa.
3. A third language competence, or a *lingua franca* situation, when the neighbouring heterolingual communities do not speak each other's languages but use instead a third language as a means of mutual communication.

Symmetrical bilingualism is more typical for the territories where two larger languages are being spoken; cf. in Daghestan bilateral Avar-Dargi, Avar-Lak, Dargi-Lak, Tabasaran-Lezgi bilingualism.

As to unilateral bilingualism, typically it is a minority group that is conversant in the language of its more numerous neighbours, not vice versa. For instance, the speakers of Archi, which belongs to the Lezgi group of Daghestanian, live in the Avar-populated Charodin district of Daghestan, which borders with the Lak area. Consequently, the Archis, who are a very small minority, speak, beside their native tongue, also Avar, Lak and Russian. The Megeb Dargis, who live in the Avar-populated Gunib district, speak Dargi, Avar, Lak and Russian (Madieva 1991: 48). In the western Caucasus, many Abazas, a minority population in the Karachay-Cherkes Republic, speak, beside Abaza and Russian, also the distantly related Kabardian, and some also Turkic Karachay, the languages of their more numerous neighbours. The Ubykhs, who were numerically smaller than neighbouring Circassians and Abkhazians, were either bilingual with Circassian or Abkhaz as a second language, or tri-lingual Ubykh-Circassian-Abkhaz. In the Muslim Georgian area of Adzharia in the southern Caucasus adjacent to Turkey, Turkish has traditionally been the second language of the population, and even today many (older) Adzharians are fluent in Turkish; besides, nearly all Adzharians speak Russian. The tiny Laz and Abkhaz communities in Adzharia, beside their native tongues, speak also Georgian and Russian, and many also Turkish, and are thus quadrilingual.

As to the third communication pattern, in the Daghestan area, for instance, Avar was often used in the past by various Daghestanian communities as a *lingua franca*, and even a special form of Avar, called *bol mač'* ("public language") had developed to facilitate communication. To some extent Turkic Kumyk was also used in some North Caucasian communities as a kind of *lingua* franca, a role now overwhelmingly taken over by Russian.

It has been noted that multilingualism in the Caucasus has a certain vertical dependency: the population of the mountains knew the language(s) of their heterolingual neighbours in the foothills and lowlands, but not vice versa.

In general, the Caucasus can be characterized, according to Johanna Nichols' (1992: 14, 16) definition, as a *residual zone*: "languages accumulate and survive in the Caucasus... Intrusive languages ... do not replace other languages or families but are added to them. Thus the Caucasus tends to increase in genetic and typological diversity over time".

4.   The Caucasus as a socio-cultural setting.

The Caucasus represents a geographic area with a variety of contrasting landscapes and climatic zones: from subtropical in Adzharia (in Georgia), Abkhazia and Lenkoran (in Azerbaijan) to perennial snows and glaciers in the mountains of the Great Caucasus Range; from the extremely fertile lowlands of the Kuban valley to the arid hilly landscapes of southern Georgia and Armenia. The traditional economies were based on agriculture, animal husbandry and hunting. Crafts were also a part of the native economy, famous centres being situated in Daghestan and parts of Azerbaijan. Baku (in Azerbaijan), Tiflis (in Georgia) and Derbent (in Daghestan) were important trade centres and cross-roads of cultures. The intense contact between neighbouring peoples contrasted with rather weak links between distant parts of the Caucasus.

Similar patriarchal feudal systems were typical for most parts of both the North and South Caucasus. Despite some differences in economic, cultural and geographic environment, the Caucasian peoples, irrespective of the languages they speak, are characterized by many common traits in social and cultural life, factors that facilitate their communication and strengthen their sense of belonging to a common Caucasian culture.

From the religious perspective, Georgia and Armenia are ancient Christian countries, while Azerbaijan is predominantly Shia Muslim. Abkhazia is nominally partly (Orthodox) Christian, partly (Sunni) Muslim, while Ossetia, apart from small Muslim enclaves, is mostly Orthodox Christian. The Iranian-speaking Tats or Mountain Jews (Daghestan, Azerbaijan and some other areas) profess either Judaism (the speakers of Northern Tat), Islam (in Azerbaijan) or Christianity (the Armenian Tats); the latter two groups are speakers of the southern dialect (Grjunberg 1997: 141-142). The rest of the traditional population groups in the Caucasus (Adyghe, Kabardians, Karachays, Balkars, Abazas, Chechens, Ingushs, Avars, Dargis, Tabasarans, Aghuls, Tsakhurs, etc.) are Sunni Muslims; in Chechnya, Ingushetia and parts of Daghestan various schools of the Sufi orders are also active.

Some Caucasian peoples, especially Abkhazians, Circassians, Ossetians, Svans and mountain Georgian groups still preserve remnants of traditional, i.e. pre-Christian and pre-Muslim, religious practices. In general, religion rarely functioned as an antagonizing factor in relations between the peoples of the Caucasus. In the cosmopolitan urban centres like Tiflis (Tbilisi), Baku or Derbent peoples of various ethnic backgrounds and confessions easily mixed and lived peacefully side by side.

5.   The indigenous Caucasian languages: one, two, or three families?

A controversial issue in Caucasian linguistics is the genetic relationship between the three indigenous Caucasian groupings. One school of thought regards all three groups as undoubtedly related. Others speak in terms of the North Caucasian vs. Kartvelian division. The third group of specialists speaks of three independent Caucasian families, attributing the affinities between them to their long-term contacts.

The so-called Ibero-Caucasian[10] school of Caucasology regards the Caucasian linguistic material as too specific to be governed by systemic phonetic rules as observed in the other, for example, Indo-European languages; hence the rejection of the classical methods of comparative linguistics. The proponents of this school (of which the most prominent figures were A. Čikobava, K. Lomtatidze, and G. Rogava) take the relationship of the three groups of the Caucasian languages for granted, not bothering much about providing solid proof for this alleged kinship. Another peculiarity of this school is the predominant interest in the relationship between the individual NC groups or even individual languages with Kartvelian, most prominently Georgian, without giving much thought to the demonstration of the relationship between the NWC and NEC groups, their kinship being regarded as self-evident. This is in obvious contradiction to the opinion expressed in 1922 by Trubetzkoy, that "the comparative grammar of the Caucasian languages – if all Caucasian languages do indeed form a single linguistic family – cannot be created, unless, on the one hand, a comparative grammar of Kartvelian, and on the other hand, the comparative grammar of North Caucasian languages have been created, and the creation of each of these grammars must be regarded as independent tasks." And more definitely: "Unless similar correspondences [as those revealed between the IE languages – V.Ch.] are established between "Kartvelian" phonemes and phonemes of the North Caucasian languages, we have no right to speak about the Caucasian linguistic community, and any theory assuming this community as given, should be declared a fantasy."[11]

The obvious failure of the Ibero-Caucasian school (which, on the other hand, scored important achievements in the description of many Caucasian languages and dialects) to prove convincingly the relationship between the three indigenous Caucasian groups can be seen as a primary source of profound skepticism on a part of Caucasologists, who took the view that even if all three groups are eventually derived from a common ancestor, this must have happened so long ago that nearly all traces of such a relationship must have long since disappeared, so that this relationship was, though probable, in fact indemonstrable.

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[10]The part "Ibero-" means "Georgian/Kartvelian" and is derived from the ancient name of modern Eastern Georgia, Iberia (which has nothing to do with the Spanish Iberia). The second part, "Caucasian", refers to the North-Caucasian (NWC and NEC) languages. The main pathos of the Ibero-Caucasian school is thus the substantiation of the kinship between the Kartvelian and the (North) Caucasian languages.

[11]Trubetzkoy (1922); cited from the Russian edition: Trubetzkoy (1987: 234).

Other authors reject, mostly on typological grounds, the possibility of genetic links between the three Caucasian groups, explaining similarities between them either by geographic proximity, or by universal tendencies.

The most impressive results, in my view, have been achieved by the linguists working in the direction of the North Caucasian relationship. Nikolai Trubetzkoy and George Dumézil laid the basis for the North Caucasian comparative linguistics, having established numerous correspondences between the NWC and NEC languages in phonetics, lexicon and morphology. These results convinced a number of specialists in the field of Caucasian linguistics of the existence of a North Caucasian family. Thus, G. Deeters (1931: 290) wrote that the relationship between the NWC and NEC languages was proven by Trubetzkoy, and that the SC languages do not seem to be related to this family. In another paper, Deeters (1955: 26) asserts, referring to the works by Trubetzkoy, that there are undoubted lexical similarities between the NWC and NEC groups. K.-H. Schmidt (1972: 25) wrote that the genetic relationship between the NEC and NWC languages, after the famous 1930 article by Trubetzkoy "Nordkaukasische Wortgleichungen", must be regarded as proven. A similar idea was expressed somewhat more cautiously by the Dutch Caucasologist A. H. Kuipers (1963: 315): "The existence of a genetic relationship between NW and NE Cauc.[asian] is probable; the relations of S Cauc.[asian] to this N group so far remain unclear ... This appraisal of the possible genetic relationships between the three groups is based on the number of reasonable etymologies that have been proposed, cf. especially N.S. Trubetzkoy, "Nordkaukasische Wortgleichungen" ".

The Trubetzkoy/Dumézil tradition (cf. Trubetzkoy 1922; 1930; Dumézil 1933; 1937) was continued, after a long pause, by the late Kabardian scholar Auez Abdokov (cf. Abdokov 1976; 1981; 1983) and most notably by the Moscow linguists Sergei Nikolayev and Sergei Starostin (Nikolayev and Starostin 1994; cf. also Starostin 1999), who produced, in my view, compelling evidence for the NWC and NEC relationship.[12]

I shall present here just a few examples of lexical correspondences between the NWC and NEC languages from the basic vocabulary[13], in comparison with forms reconstructed by Klimov (1964) for P(roto-)K(artvelian):

'leg, foot':   NWC *λ'a, PN *lar, PAvar-Andi *λoli, PTsez *λolé, PLez *λäl; cf. PK *bark'-
                (al), *berq-, *k'warc$_1$χ/-;

'walk, go': NWC *$k^{w}a$, PN *-$k^{,}$- ('lead, drive'), PAvar-Andi *kVh-//*-$ik^{w}(Vn)$- ('drive', 'urge, direct, (re)turn'), PTsez *$?ek^{,}$-, PDar *-$irk^{,}$- ('drive', 'urge'), PLez *$?aki$- ('walk, go', 'drive', 'urge'); cf. PK *$gwal$-, *wid- ;

'road, path': NWC *$məf^{°}a$, PN *niq, PAvar-Andi *miqʾi, PDar *daq, PLez *$räq$ʾ; cf. PK *gza-

'tooth': NWC *ca, PN *ca, PAvar-Andi *$colu$, PTsez *sil, PDar *$cula$, PLez *sil, Khin *$culoz$; cf. PK *$k'b$-il- ;

'tongue': NWC *$bz/ža$, PN *$mot'i$, PAvar-Andi *$mici$, PTsez *mic, Lak maz, PDar *mec, PLez *$melc$; cf. PK *$nena$- ;

'house': NWC *$f^{°}əna$, PN *phc ('village'), PTsez *$q^{°}in$ ('farmstead'), PTsez-Khvar *$q^{°}ən$ ('village'), PHunz-Bezh *qun ('village'), PLez *muqʾ(a) ('village', 'farmstead'); cf. PK *$(s)a$-xl- ;

'name': NWC *$(p')c'a$, PN *$c'a$, PAvar-Andi *$c'iri$, PTsez *$c^{°}ə$, Lak $c'a$, PDar $z^{°}e$, PLez *$c^{°}er$, Khin *$c'ir$; cf. PK *$ʒaxje$- ;

'rat, mouse': NWC *$q^{°}ənə//H^{°}ənə$, PAvar-Andi *$hink^{°}o$ (Avar $funk'$), PTsez *$?aq^{°}V$, Lak $uk'u$-lu, PLez *$nVq^{°}e$-l, Khin $nuk'ur$; cf. PK *$(s_1)tagw$- 'mouse', Geo vir-txa 'rat';

'meat, flesh': NWC *$L'ə$, PN *$dilxu$, PAvar-Andi *$riλ'i$, PTsez *$riλ$, Lak dik', PDar *$diĝ$, PLez *$jaλ'$; Khin $lika$; cf. Geo *$qorc$- ;

'grass': NWC *$wəcə$, PN *buc, PAvar-Andi *$bici$, PLez *$wVcVn$ ('burdock'); cf. PK *tib-;

'soil, clay': NWC *$nəš^{°}ə$, PAvar-Andi *$?onš^{°}i$, Lak $arši$, PDar *$heš/š$; cf. PK *$tiqa$- ;

'louse': NWC *$c'a$, PN *$mac'e$, PAvar-Andi *$noc'i$, PTsez *$nəcé$, Lak nac', PDar *nez, PLez *$näc'$, Khin $nimc'$; cf. PK *$t'iz_1$-;

'moon': NWC *$məʒa$, PN *$butt$, PAvar-Andi *$birc^{°}i$ (Avar moc'), PTsez *$bocV$, Lak *$barz$, PDar *bac, PLez *wac, Khin *wac'; cf. PK *$du(s_1)te$- ;

'star': NWC *$c'^{°}a$, PN *$thari$, PAvar-Andi *$c^{°}arhi$, PTsez *$c'^{°}ä$, Lak $c'u$-ku, PDar $zuri$; cf. Geo $varsk'vlav$- ;

'ice': NWC *$məLə$, Lak mik', PDar *$miĝ$, PLez *$merλ^{°}$, Khin mik'; cf. Geo $q'inul$-;

'ashes': NWC *$tq^{°}a$ (also 'grey'), PAvar-Andi *$rVqV$, Lak lax (also 'dust'), PLez lax ('grain peelings'); cf. PK *$t'ut'a$;

'new': NWC *$c'a$, PN *$c'in$, PAvar-Andi *$c'inhV$, PTsez *-$icVn$-, Lak $c'u$-, PDar *$c'i$-, Lez *$c'enjä$-; cf. Geo $axal$- ;

'day': NWC *$məλ^{°}a$; PN *$mälx$ ('sun'), PAvar-Andi *$miλi$ ('day, sun'); cf. PK *$dγe$- ;

'year': NWC *$s^{°}a/ə$, PAvar-Andi *$rišin$, Lak $šin$, PLez *$sän$; cf. PK *za-, *$c'el$- ;

'I': NWC *sa, PN *$sɔ$, PLez *zo-n, Khin zi; cf. PK *$me(n)$- ;

'thou': NWC *wa, PN *waj, PAvar-Andi *mi-n (< *wi-n, by assimilation), PTsez *mə (< *wə-n), PLez *uo-n, Khin wɨ; cf. PK *sen-;

'you (pl.)': NWC *ś°a, PN *šu, PAvar-Andi *b-iš-//*ʔuš-, PTsez *mižɔ, Lak zu, PDar *nu-ša, PLez *ǯ°[e]-n, Khin zu-r (oblique base su-r); cf. PK *(sɪ)tkwen-;

'one': NWC *za, PN *cha, PAvar *ci-, PTsez *hɔ̄š̄, Lak ca, PDar *ca, PLez *ša, Khin sa; cf. PK *ert-;

'two': NWC *dG°ə, PAvar-Andi *kʼɨ-, PTsez *qˀ°ɨ-nV, Lak kʼɨ-a, PDar *kʼˀ°i, PLez *qˀ°ä, Khin kʼu; cf. PK *jor-;

'three': NWC *λə, PAvar-Andi *λob-, PTsez *λ̄ɔ-, PDar *hab-, PLez *λepɨ-; cf. PK *sam-;

'four': NWC *pʼλʼˀə, corresponds to NEC 'eight':[14] PN *barλ, PAvar-Andi *biλ̃ɨ-, PTsez *beλ-(nɔ), PLez *menλ̃ä-; cf. PK *o(sɪ)tx(w)- 'four', *arwa- 'eight'.

Most importantly, systematic comparison of the vocabulary of the NWC and NEC languages (or rather, of their reconstructed proto-languages) reveals patterns of regular sound correspondences (cf. Trubetzkoy 1930; Abdokov 1983: 46-72; Nikolayev and Starostin 1994: 40-91). This is contrasted with the failure to establish any comparable system of regular phonetic correspondences between the NC groups and Kartvelian, as the history of the Ibero-Caucasian hypothesis testifies. A thorough analysis of the lexical material of the NWC, NEC and SC languages will lead any competent historical linguist to the conclusion that we deal here with two mutually unrelated linguistic families: North Caucasian (with its Western and Eastern branches) and Kartvelian.

If the NC and SC languages represent genetically unrelated taxons, to what factors should we attribute then the existence of numerous common traits observed between these two families? It would be only logical to seek the sources of these similarities in language contact.

6.   Polyglottal Caucasus: a geographic notion, a Sprachbund, or what?

The second major controversy around the Caucasian languages, beside the problem of their genetic relations, is whether these languages, related or not, form a language union. Some authors do not doubt the existence of a "common Caucasian linguistic type" and regard its existence as self-evident. Others dispute and sometimes even categorically reject the existence of any pan-Caucasian similarities, except for the sole phonological trait of glottalization.

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[14]Cf. Nikolayev and Starostin (1994: 315), Chirikba (1996: 406)

As noted by Klimov (1986a: 172), the most positive views on the existence of a common Caucasian type were held by "outsiders", i.e. not specialists in the Caucasus in *senso strictu*. Thus, Baudouin de Courtenay emphasized the existence of common features between the Caucasian languages "without any regard to the presence or absence of their ancient genetic kinship".[15] Ernst Lewy (1961: 597) asserted that the Caucasian languages do form a unit, even in case they are not genetically related. Václav Polák (1950: 400) went even further, claiming the existence of a Caucasian language union: "Les langues du Caucase, caucasiennes d'origine ou non, ont pris le type "caucasien" dû – me semble-t-il – à la pression des modèles typologiques de l'union de langues caractéristique pour le territoire en question. C'est pourquoi il n'est pas nécessaire – me semble-t-il – de reconstruire la langue commune caucasienne pour expliquer certains traits communs. Il suffit d'y voir des phénomènes dûs à la pression du modèle structurel de l'union des langues en question". V. Pisani also asserted that "here two or three language groups, absolutely different genetically, became so close between themselves that one can speak about 'Caucasian languages' as languages possessing many common elements, which give them the appearance of a language family".[16] In another work Pisani suggested that in the Caucasus we can observe a language union in the process of formation ("Sprachbund im Werden") (Pisani 1959: 85). A somewhat different approach was taken by the Georgian linguist G. Cereteli (1968: 14), who proposed the term "allogenetic relationship", which unites separate languages of the Caucasus, or even groups of these languages, on the basis of certain affinities between them, which can hardly be explained by a simple borrowing.

The notion of a Caucasian linguistic area or of a common Caucasian language type has firmly penetrated the non-Caucasological literature and became, as Tuite (1999: 1) notes, a commonplace.[17] Ironically, Caucasologists themselves are divided on this important issue. As Klimov (1986b: 129) noted on that account, "Paradoxical as it may seem, the Caucasian area studies have so far failed to ascertain a "Sprachbund" within the Caucasus among the autochthonic and Indo-European (Armenian and Ossetic) languages. While to outsiders its existence is beyond doubt ..., to Caucasologists it is at best a hypothetical assumption". Others were quite categorical in rejecting any idea of structural unity of the Caucasian languages. Thus, the German Caucasologist Gerhard Deeters in his 1931 article remarked: "In general, the structures of the three groups are so different, that there can be no question of a common "Caucasian" language type".[18] A similar view was expressed recently by Tuite (1999: 5): "When

[15]Baudouin de Courtenay (1963: 112); cited from Klimov (1986: 172).
[16]Pisani (1956: 54); cited from Klimov (1986: 173).
[17]Cf. for example, Emeneau (1980: 1): "long-recognized linguistic areas such as the languages of the Caucasus or of the Balkans". Cf. also Bloomfield (1933: 468-471).
[18]Deeters (1931: 290); but in his later paper Deeters (1957: 13) does speak of the possibility of the Caucasian Sprachbund.

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it comes to the typology of NWC, NEC and SC, linguists who know these languages well find genuinely pan-Caucasian traits hard to come by. There is certainly nothing comparable to what can be described for the Balkans or other well-established Sprachbünde: no pan-Caucasian patterns of clause linkage, nominal categories (such as definiteness), or verbal categories".

But other specialists in the Caucasus do assume the existence of certain pan-Caucasian traits. Thus, Mačavariani (1966: 8) noted the presence of numerous and deep structural-typological similarities between the Kartvelian and the North Caucasian languages. In his survey on the languages of the Caucasus, J. Catford (1977) produced a table, which lists relevant phonological, morphological and syntactic features common to all three groups. Although Catford concludes that there are not many traits common to all Caucasian languages, he remarks that "anyone working with these languages receives a strong impression of 'family likeness' running through all of them."

Such deep disagreement between the specialists on the crucial issue of the areal relationships of the Caucasian languages can only be compared with an even greater discord on the issue of the genetic relationship between these languages. The reason for such polarity in both cases is no doubt the insufficient level of research. Besides the volume edited by Klimov in 1978, a chapter in Klimov's survey of the Caucasian languages (1986a) and a number of articles on the theme, very little work has actually been done on the issue of the Caucasian areal linguistics in a satisfactory scope and depth. This reflects, as Klimov himself emphasized, the Caucasologists' preoccupation mainly with genetic and grammatical issues, not areal ones. Admitting that "the areal connections of the autochthonous languages of the Caucasus… remain to this day poorly worked out", Klimov (1986b: 123) provides insights into why the Sprachbund idea did not find its supporters among the specialists in the Caucasus: "This situation seems, nevertheless, natural, since the processes of convergence in the Caucasus have been little investigated because of the bias of part of the specialists against the "Sprachbund" notion itself." In another paper Klimov (1991: 8) even notes that some Caucasologists regarded the Sprachbund theory as "anti-historical".

Against this background, the recent article by Tuite (1999) is a welcome exception, although it is devoted primarily to only one aspect of the problem, namely, the nature and the functioning of the ergative construction in the three Caucasian groups. The main aim of this paper was to knock out the second major stone (alongside glottalization) at the basis of, in Tuite's words, the "myth" of the Caucasian linguistic union. As he writes on p. 23 of his paper, "Whereas the pan-Caucasian distribution of glottalization is doubtless due to local diffusion, the (nearly) pan-Caucasian distribution of ergativity must have some other explanation, one that may go far back into the past, and which must be explored separately in each Caucasian language

family... If this is so, there remains little to link the Caucasus together as a linguistic area save a single phonetic feature (glottalization), and the general impression we outsiders have that it is somehow exotic and different".

The publication in 1978 of an important volume (Klimov 1978) specifically devoted to the discussion of the structural similarities between the three Caucasian groups was a major contribution to the topic. Noting "a *considerable number* (my italics. – V.Ch.) of common Caucasian structural parallels found in lexicon, syntax, morphology and phonetics" (p. 127), the authors of this book were, however, quite cautious not to attribute these similarities to areal diffusion, preferring to interpret them by general typological factors or, alternatively, as the probable evidence for their ancient genetic links. The general conclusion of the book quite eloquently highlights this deliberately indecisive approach: "the modern state of Caucasian linguistics enables one to say that the majority of the listed parallels are due to a typological stimulus", and "it is very doubtful that the observed common Caucasian parallels are due to any sort of areal interaction, either to ancient interaction of the autochthonous Caucasian languages or the affect of the common substrate, or any others. Indeed, in the vast majority of cases the origin of common Caucasian structural parallels cannot be interpreted by linguistic contacts" (p. 127, 130). Besides: "It is not improbable that quite a number of the Caucasian isoglosses can be accounted for genetically as the original legacy of a common ancestor" (p. 128-129).

One is thus confronted with a dilemma: either to regard the "numerous" common Caucasian structural traits as explainable by general typological factors or, alternatively, as not random and explainable by genetic retention. Yet, despite the hesitant approach of its authors, this monograph did succeed in demonstrating the major pan-Caucasian structural traits, which distinguish the Caucasian linguistic area from the adjacent Indo-European, Turkic, or Semitic areas.

The late Georgy Klimov, the celebrated Russian specialist in the Caucasian languages, too was cautious to call on areal factors for explaining inter-Caucasian similarities, hesitating between purely typological explanations and the possibility of very ancient genetic ties. Despite his generally negative attitude to the possibility of the areal nature of certain pan-Caucasian traits, he nevertheless noted numerous borrowings and calques on various levels of linguistic structure between the three Caucasian groups, and on the lexical level a noticeable layer of pan-Caucasian cultural isoglosses. He also noted that certain facts might be explained by substrate or by language replacement (Klimov 1991: 8).

Another authority in Caucasian linguistics, the Norwegian scholar Hans Vogt (1988: 502, 504), in contrast, did not show any prejudice to the idea of the Caucasian areal union. He wrote: "Whatever their genetic historical links, such a situation [long-term close neighbourhood of

various Caucasian languages, regular contacts and multilingualism. – V.Ch] creates ideal conditions for mutual linguistic diffusion, … for the spread of innovations, for borrowings, in short, for convergence and parallelism in the development of these languages, for the creation of the language union (Sprachbund). The influence of the neighbouring languages is amazing even in the case of such relatively recent "newcomer" as the Ossetic language <…> Analyzing isoglosses which we meet in the Caucasian area, we would discover that a certain number of them is found beyond the borders of the Caucasus and link the Caucasian languages with the neighbouring non-Caucasian idioms. As is well-known, Ossetic and some Armenian dialects, spoken in Georgia, have many Caucasian features both in morphology and syntax". Some other specialists in the Caucasus also regard the existence of the Caucasian linguistic area, irrespective of genetic relationships between the three groups, as probable or even self-evident. Cf., beside Vogt, also Deeters (1957: 13), despite his earlier negative view on that account (in his 1931 paper), and Čikobava (1970: 52), who regarded the Kartvelian languages as belonging to "one typological class" with the North Caucasian languages. Shimomiya (1978: 202, 209) speaks directly about the Caucasian Sprachbund as an obvious fact; cf. also Gabunia and Guzman Tirado (2002: 80-82).

It is interesting to analyze the position of Trubetzkoy, the instigator of the concept of the language union. As remarked by Tuite (1999: 3), "As both one of the premier Caucasologists of his day and inventor of the term Sprachbund, Trubetzkoy, of all people, ought to know whether the Caucasus qualified as a Sprachbund." From this Tuite concludes that "the fact that he never applied the term he invented to a region to which he had devoted years of study and fieldwork implies very strongly that he did not believe the Caucasus constituted a Sprachbund". Indeed, Trubetzkoy, the author of the term "Sprachbund", never spoke of the Caucasian language union, though he did mention the "Caucasian phonological union" in a letter dated 20 May 1937 to Roman Jakobson.[19] But at the time when Trubetzkoy was working on the NC languages, comparative Caucasology was at its initial stages, and it was not known what kind of relations – genetic or only areal – the NC family, whose existence was postulated by Trubetzkoy, had with the SC family. Trubetzkoy regarded even posing the question on the nature of relations between the NC and SC languages as premature, until the comparative grammars of both families had been independently created, and referred to his 1922 article as a *first step* towards a NC comparative grammar, expecting parallel research to be undertaken on the side of the Kartvelian linguistics. Being not in a position to ascertain the nature of the relations and common traits between the NC and SC languages, Trubetzkoy understandably chose the Balkan languages, with clear genetic affiliations, as a more obvious example of a Sprachbund.

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[19]Cf. Trubetzkoy (1975: 393-4); cit. from Tuite (1999: 3).

7. The Caucasus as a linguistic area.

7.1. The diagnostic features.

There have been several attempts to make an inventory of features common for all three groups of the Caucasian languages (cf. Lewy 1961: 596-7; Charachidzé 1967; Catford 1977; Klimov 1986a: 172-3). In defining the linguistic area, it is useful to range the isoglosses from the point of view of non-trivial typological features. The following table gives a summary of such important ("weighty") traits which can be regarded as defining the Caucasian Sprachbund.

Table 2. The diagnostic features of the Caucasian Sprachbund.

Phonology	*Morphology*	*Syntax*	*Lexical semantics*	*Lexicon*
rich consonantism	agglutination	identical word order (SOV, Attr-N)	stative vs. dynamic verbs	common cultural terms not found outside the Caucasus
ternary contrast of stops and affricates	polysynthetism	ergative construction	inversive verbs	common phraseology specific to the area
glottalization	predominance of prefixal conjugation	inversive construction	ambitransitive (labile) verbs	common semantic patterns
rich sibilant systems	predominance of postpositional constructions	the possessor constituent precedes the possessed one	suppletive verbs for singular and plural arguments	

rich postvelar (uvular, pharyngeal and laryngeal) systems	masdar (verbal noun)
similarly built harmonic clusters	morphological marking of causative
presence of schwa	category of evidentiality
lack of phonemic diphthongs	category of potential
lack of vocalic clusters	attachment of coordination markers to each conjunct
ablaut	directional and orientational preverbs
	group inflection
	a three-grade deictic distinction
	vigesimal numeral system

Though some of these traits can be explained by universal tendencies and independent parallel development, what is important here is that there exists a *set* of common features found on various levels of linguistic structure which is specific to the Caucasus and which renders this linguistic area different from any other linguistic community outside the Caucasus.

7.2. Phonology.

Phonological systems of all Caucasian languages are characterized by substantial similarities which allow one to speak of a common Caucasian phonetic type (cf. SO 85; Catford 1977) or of "the Caucasian phonological union" (Trubetzkoy 1975: 393-4). Beside the existence of shared positive traits, the Caucasian languages share important negative features as well. Thus, for all their richness and diversity, all Caucasian systems lack velar or uvular nasals, interdental fricatives, glottalized resonants and voiced aspirated consonants. A general impression of the expanded consonant systems in the Caucasus can give the example of the Ubykh consonantism.

Table 3. A chart of Ubykh consonants.

	Stops			Affricates			Fricatives		Resonants	Glides
	vd	vls	glot[20]	vd	vls	glot	vd	vls		
Labial	*b*	*p*	*p'*					*f*	*m*	*w*
pharyngealized	*ḇ*	*p̱*	*p̱'*				*v̱*		*m̱*	*w̱*
Dental	*d*	*t*	*t'*	*ʒ*	*c*	*c'*	*z*	*s*	*n* *r*	
labialized	*d°*	*t°*	*t'°*							
Middle				*ʒ́*	*ć*	*ć'*	*ź*	*ś*		
labialized				*ʒ́°*	*ć°*	*ć'°*	*ź°*	*ś°*		
Back				*ǯ*	*č*	*č'*	*ž*	*š*		
labialized							*ž°*	*š°*		
palatalized				*ǯ'*	*č'*	*č"*	*ž'*	*š'*		
Palatal										*j*
Lateral					*λ'*		*L*	*λ*		
Velar							*ǵ̇*	*x̂*		
labialized	*g°*	*k°*	*k'°*							
palatalized	*g'*	*k'*	*k"*							
Uvular		*q*	*q'*				*γ*	*x*		
labialized		*q°*	*q'°*				*γ°*	*x°*		
palatalized		*q'*	*q"*				*γ'*	*x'*		
Pharyngealized uvulars		*q̱*	*q̱'*				*γ̱*	*x̱*		
labialized		*q̱°*	*q̱'°*				*γ̱°*	*x̱°*		
Laryngeal										*h*

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[20]vd – voiced, vls – voiceless, glot – glottalized.

7.2.1. Consonant-type languages.

Syntagmatically, all (indigenous) Caucasian idioms can be called "consonant-type languages", with more consonants in a speech sequence than vowels (cf. SO 104). The same term ("consonantal languages") can be applied to them paradigmatically as well, all Caucasian languages being notorious for the richness of their consonantal inventories, versus restricted or very restricted vowel systems. The most moderate consonant system is presented in Kartvelian – ca. 30 consonants. Some other Caucasian languages display much richer inventories, which belong to the richest systems of the world, cf. Archi with its 69 consonants, Ubykh with its 80 or 81 consonants and Sadz Abkhaz with its 110 or so consonants.

The Kartvelian consonantism, modest by Caucasian standards, can be regarded as representing the core of any Caucasian system, to which additional features, such as labialization, palatalization, strength, pharyngealization, etc. have been added. Remarkably, the same core system is attested also in the non-Caucasian languages of the area, Armenian (in the dialects close to the Caucasus) and Ossetic. Historically, the relative "simplicity" of the Kartvelian consonant system is secondary, as compared to the reconstructed Proto-Kartvelian inventory. In contrast, Iranian Ossetic obviously complicated its phonemic system by acquiring an additional series of "Caucasian" glottalized consonants.

7.2.2. The structural organization of the obstruent system.

The Caucasian obstruent system is represented by one model, which can be described in the words of J.C. Catford (1977: 288): "(i) *stops* articulated at *labial, dentalveolar, velar,* and *uvular* locations (types *p t k q*); (ii) *affricates* at two locations (types *ts tsH*); *fricatives* at *alveolar, postalveolar,* and *uvular* locations (types *s SH X*)." In all languages there is a sharp dichotomy between obstruents and resonants. According to Kodzasov (SO 115), though the dental, alveolar and uvular stops and fricatives are attested in many languages outside the Caucasus, the combination of both stops and fricatives of all three of these series, as attested in the Caucasus, is extremely rare.

Some non-Caucasian languages of the area share with the neighbouring Caucasian languages not only phonological but phonetic characteristics as well. Thus, both in Caucasian languages and in Ossetic and Azeri, voiced obstruents are characterized by incomplete voicedness and a relative tenseness of articulation. Similar is also the articulation of voiceless aspirated stops in Ossetic and in Caucasian languages (cf. Melikišvili 1983: 221).

Whereas the Ossetic obstruent system shows undoubted Caucasian features, Armenian displays a more complicated picture. Classical Armenian had a ternary system, with voiced, voiceless aspirated and voiceless unaspirated members (e.g. b - p - p^h). Those East Armenian dialects spoken in Georgia or in its near vicinity (Tiflis, Artvin, Kars, etc.) have the ejective series as the second member of the row (i.e. $b - p' - p^h$). The glottalized obstruents are also found in some forms of Western Armenian (cf. Pisowicz 1997: 217-219), whereas other western dialects have a binary obstruent system, resembling that of Turkish.

7.2.3. The ternary opposition of laryngeal features.

Nearly all Caucasian languages have a ternary opposition of laryngeal features, including voiced, voiceless aspirated and glottalized correlates, instead of a binary system (voiced vs. voiceless), more widespread in the other areas of the world, including the contiguous areas. In all neighbouring non-Caucasian languages where such a ternary system occurs (in dialects of Armenian, Kumyk, Azeri, in Ossetic), it is nearly universally explained by the Caucasian influence or substrate (with some reservations for Armenian, see below).

Some (North) Caucasian languages expanded the basic ternary system by adding an additional contrast in strength, realized phonetically either as lax vs. tense, geminated vs. non-geminated or aspirated vs. non-aspirated consonants; such contrasts exist in the NWC Bzhadugh and Shapsygh Adyghe, and in NEC – in Bats and in many Daghestanian languages. A similar quaternary system of stops is attested in Ossetic dialects as well, assumed to be due to influence from neighbouring Caucasian languages.

7.2.4. Glottalized consonants.

The presence of glottalized obstruents in all Caucasian and in some non-Caucasian languages, such as Indo-European Armenian and Ossetic, the dialects of Turkic Kumyk, Azeri, Karachay-Balkar and Turkish, and in Afroasiatic Neo-Aramaic dialects (which have developed glottalized consonants from emphatics) renders it an incontestable Caucasian areal feature. The glottalization is ejective and involves predominantly (voiceless) stops and affricates. The glottalized fricatives in Circassian, Abkhaz dialects, and in the Andi languages are rare exceptions and result from later developments. There are no glottalized resonants, which also renders it a typically Caucasian feature, as such sounds are not uncommon, for example, in North American indigenous languages. Several factors conspire here: a) the presence of glottalization

in all Caucasian idioms and their diffusion into a number of non-Caucasian (Indo-European, Turkic or Afroasiatic) languages of the area; b) the nature of glottalization and the distributional limitations; c) the near complete absence of ejective glottalization elsewhere in Eurasia.[21]

Of the non-Caucasian languages, glottalization in the Caucasus is attested in Ossetic, the Eastern Armenian dialects (e.g. Tiflis, Artvin), in dialects of Kumyk (e.g. Kaytag), northern Azeri (e.g. Zakatala-Kakh) and Karachay-Balkar (e.g. Malkar). Ossetic has glottalization not only in words borrowed from the Caucasian languages, but also in the native IE vocabulary (e.g. *st'aly* 'star'). The same is typical for the Malkar dialect of Karachay-Balkar (e.g. *k'ordum* 'I saw'). In the Kumyk dialects glottalization is explained by the NEC substrate.[22] The glottalized consonants are present in words of NEC origin in some northern Azeri dialects, e.g. in Zakatala-Kakh, which is based on the Tsakhur substrate, in the Tabasaran sub-dialects of Azeri, based on Tabasaran, etc. Armenian shows variegated systems, some of its dialects having glottalized consonants, some (including Classical Armenian) having a ternary opposition of voiced vs. voiceless aspirated and voiceless unaspirated. Some authors reject the idea of the areal origin of Armenian glottalics, tracing them back to Common Armenian and further back to the Proto-Indo-European glottalized stops (cf. Kortlandt 1978: 13, 15; Gamkrelidze and Ivanov 1984: 41), while others (cf. Pisowicz 1997: 217-219) regard them as the result of a secondary development. According to G. Cereteli, "It is wrong to think that the glottalized consonants are present only in those Armenian dialects, which are under the immediate influence of Georgian (e.g. Tiflis, Artvin, etc.). They are equally typical for all East Armenian, including the Literary Armenian language" (cf. Gamkrelidze and Mačavariani 1965: 46, fn 2).

The fact remains that phonological glottalization is found exclusively in those Indo-European languages spoken in the Caucasus, which is why their attestation here is attributed by many authors to the influence of the Caucasian languages (cf. for instance Vogt 1988: 458). It is not quite clear whether some Caucasoid substrate language was responsible for the evolution of emphatics into glottalized stops and affricates (*p', t', k', č'*) in the Eastern Neo-Aramaic dialects of Urmia, Van and Mosul (cf. Cereteli 1976: 229), geographically close to the Caucasus.

7.2.5. Rich sibilant systems.

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[21]The supposed presence of glottalization in both Afroasiatic and Indo-European reconstructed systems (though Indo-European is disputed) could in principle suggest a very early (prehistoric) "phonological union" between these latter and the two Caucasian families.

[22]The population of several Kumyk villages, whose ancestors are known to be originally Avar speakers, represents a separate Kumyk dialect, displaying such non-Turkic traits as the presence of glottalized consonants, the violation of the vowel harmony rules, etc. (cf. Mikailov 1954: 12-3).

All Caucasian languages are characterized by extreme richness of their sibilant[23] systems, which can be regarded, along with glottalization, both as a pan-Caucasian trait and as one of the main distinctive features of the Caucasian phonological type. This is contrasted with a relative paucity of sibilants in other, especially contiguous, areas.

Table 4a. The number of sibilants in the Caucasian languages.

30+	Sadz Abkhaz
29	Bzhadugh Adyghe
27	Bzyp Abkhaz, Ubykh
20	Abzhywa Abkhaz
18	Tabasaran, Burshag Aghul
16	Andi
15	Proto-Kartvelian, Akhvakh, Botlikh
14	Avar
13	Tsakhur
12	Lak, Chamala, Archi
11	Chechen, Tindi, Dargi, Fite Aghul, Khinalug Bagvala
10	Lezgi, Rutul, Kryz, Udi, Ingush, Bats, Georgian, Megrelian, Svan
9	Richa Aghul, Budukh
8	Inkhokvari Khvarshi, Tsez, Hinukh, Hunzib

The situation with sibilants in the non-Caucasian languages of the area and in the contiguous languages is as follows:

Table 4b. The number of sibilants in the non-Caucasian and contiguous languages.

Areal non-Caucasian languages		Contiguous languages	
10	East Armenian	7	Kurdish
8	West Armenian, Ossetic	6	Talysh, Turkish, Persian
7	Kumyk, Karachay-Balkar	5	Neo-Aramaic
6	Nogay, Azeri, Tat	4	Greek

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[23]By "sibilants" I mean front ([s] and [ts]-type), middle/hissing-hushing ([ɕ] and [tɕ]-type) and back ([ʃ] and [tʃ]-type) fricatives and affricates.

Though some areal and contiguous languages also display a developed system of 6-7 sibilants, the sibilant systems of Ossetic and especially Armenian are obviously richer, which may well be attributed to the areal factor.

Some non-contiguous Indo-European and Uralic languages of Europe also boast developed sibilant systems, though other Eurasian systems are more moderate and in the majority of them the number of sibilants vacillates between 6 and 4, while the smallest systems contain 2 or even 1 sibilant:

Table 5. The number of sibilants in the languages of Eurasia.

16	Lithuanian (IE/Baltic)
14	Wakhi (IE/Iranian)
12	Burushaski (isolate)
11	Ishkashim (IE/Iranian), Albanian (IE/Albanian)
10	Rushan (IE/Iranian), Russian (IE/Slavic), Permiak, Komi-Zyrian (Uralic)
9	Karelian and Mordvin (Uralic)
8	Arabic (Afroasiatic), East Baluchi and Roshorv (IE/Iranian), Latvian (IE/Baltic), English (IE/Germanic), Udmurt, Veps and Hungarian (Uralic), Karaim (Turkic), Mongolian (Mongolic)
7	Karakalpak (Turkic), Moldovan (IE/Romance)
6	Krym-Tatar, Bashkir, Gagauz (Turkic), West Baluchi, Dari (IE/Iranian), Basque (isolate), Kalmyk (Mongolic)
5	German (IE/Germanic), Hindi (IE/Indoarian), Kyrgyz (Turkic), Korean (isolate)
4	French (IE/Romance), Greek (IE/Greek), Icelandic (IE/Germanic), Kazakh (Turkic), Ket (isolate), Nenets, Nganasan (Uralic/Samoyed), Itelmen (Chukchi-Kamchatkan), Aleut (Eskimo-Aleut)
3	Oroch, Orok, Nanay, Negidal (Tunguso-Manchu), Welsh (IE/Celtic)
2	Dutch (IE/Germanic), Mari (Uralic/Finnic), Ainu, Nivkh (isolates)
1	Kerek, Koriak (Chukchi-Kamchatkan), Yakut (Turkic), Finnish (Uralic/Finnic), some forms of Dutch.

The areality in the distribution of sibilant systems in Eurasia is quite obvious, the Caucasus manifesting the region with the exceptionally developed sibilant systems.

7.2.6. Rich postvelar consonant systems.

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The presence of postvelar (uvular, pharyngeal and laryngeal) consonants is mentioned by some authors as another pan-Caucasian feature (cf. Catford 1977: 308; Klimov 1986a: 172). Though Tuite (1999: 5) regards this feature as non-essential, arguing that these sounds can be found also outside the Caucasus, it is the striking richness of the system of postvelars that renders it a specific feature of the Caucasian linguistic area, which has no analogues among the languages of Eurasia.

Table 6. The number of postvelars in the Caucasian languages.

26+	Proto-West-Caucasian
21	Ubykh
16	Abaza
14	Bzyp Abkhaz
13	Burshag Aghul
12	Abzhywa Abkhaz
11	Akhvakh, Kryz, Bzhadugh Adyghe, Kabardian
10	Dargi, Archi, Budukh, Khinalug, Abadzakh Adyghe
9	Bats, Chamala, Tindi, Lezgi, Tsakhur, Temirgoy Adyghe
8	Chechen, Ingush, Avar, Andi, Inkhokvari Khvarshi, Tsez, Hinukh, Bezhta, Hunzib, Lak, Tabasaran, Rutul
6	Proto-Kartvelian, Svan, Old Georgian, some modern Georgian dialects, Udi
5	Standard Georgian, Megrelian, Laz

The basic Caucasian systems include five postvelars: uvular stops q q', uvular fricatives $ʁ$ $χ$, and pharyngeal/laryngeal H/h. This is what we basically have in Proto-Kartvelian, Svan, Old Georgian and some modern Georgian dialects, although Standard Georgian, Megrelian and Laz lost q, and in Megrelian and Laz dialects q' is substituted by a glottal stop. In the NC languages the systems of postvelars are at least twice as rich as in SC, while the NWC languages again hit the record. Typical for many Caucasian languages is the absence of the voiced counterpart of q, i.e. G. This consonant is found only in such NEC languages as Andi, Dübek Tabasaran, Rutul, Tsakhur, Kryz, Budukh and Khinalug, though it is reconstructed for both NC groups and for Proto-NC. It has been observed that "in Caucasian languages if there is only *one* type of dorsal fricative it is always uvular, not velar" (Catford 1977: 288). The same principle holds for both Ossetic and Armenian.

The non-Caucasian languages of the region and the contiguous languages show variegated postvelar systems:

Areal non-Caucasian languages		Contiguous languages	
6	Iron Ossetic	4	Persian, Neo-Aramaic
4	Kumyk, Tat	3	Kurdish
3	Armenian, Digor Ossetic, Nogay,	1	Turkish
	Azeri, Talysh, Karachay-Balkar	0	Greek

The following table demonstrates the universal rarity of developed postvelar systems among the languages of Eurasia, with the few exceptions represented by Arabic or isolated Nivkh.

Table 7. The number of postvelars in the languages of Eurasia.

7	Arabic (Afroasiatic/Semitic)
6	Nivkh (isolate)
5	Karakalpak (Turkic), Ket (Yenissey), Burushaski (isolate)
4	Itelmen (Chukchi-Kamchatkan), Kazakh (Turkic), Parya (IE/Indoarian), Tajik (IE/Iranian)
3	Wakhi, Baluchi, Rushan (IE/Iranian), Bashkir, Krym-Tatar, Karaim (Turkic), Koriak (Chukchi-Kamchatkan)
2	Ainu (isolate), Aleut (Eskimo-Aleut), Karelian (Uralic/Finnic), Kyrgyz (Turkic), Negidal (Tunguso-Manchu)
1	Vod, Finnish (Uralic/Finnic), Welsh (IE/Celtic), Albanian (IE), German, English, Dutch, Icelandic (IE/Germanic), Hindi (IE/Indoarian), Latvian (IE/Baltic), some Basque dialects (isolate), Korean (isolate), Nenets, Nganasan (Uralic/Samoyed), Yakut (Turkic)
0	French (IE/Romance), Lithuanian (IE/Baltic), Greek (IE/Greek), Russian (IE/Slavic), Hungarian (Uralic/Ugric), Mongolian (Mongolic), Mordvin, Udmurt, Permiak (Uralic/Finnic), Oroch, Orok (Tunguso-Manchu)

7.2.7. Simple resonant systems.

Similarities in the general make-up of the obstruent system continue in the system of resonants. All Caucasian languages are characterized by a simple system of resonants: "two nasal (*m n*), a labial semivowel or fricative (*w /v*), a palatal semivowel (*j*), an apical trill (*r*), and all but the Adyghean languages have a lateral approximant (*l*)" (Catford 1977: 288). Ubykh should be added to Adyghean in lacking the lateral resonant (historically a secondary loss in both

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languages); besides, Standard Georgian lacks *j*. Resonants are not syllabic (with a possible exception of semivowels), cannot be glottalized, and normally (with few exceptions) lack any other secondary features, thus presenting a sharp contrast to the class of obstruents.

In other linguistic zones of Western Eurasia the systems of resonants are also rather simple, so that this feature is not specific to the Caucasus. What is typical for the Caucasus is the lack of any secondary features for resonants, unlike obstruents, as well as the lack of the velar nasal resonant (*ŋ*), which is a typical phoneme in Turkic and in many Indo-European languages. The neighbouring Kumyk, Nogay and Karachay-Balkar have *ŋ*, and Armenian and Kurdish have two kinds of rhotics.

7.2.8. Vocalic systems.

In contrast to consonants, the vocalic systems in the Caucasian languages are not uniform at all. The NWC vocalism is characterized by a minimal number of vowels, again hitting world records: 3 in Circassian and Ubykh (historically 2) and 2 in Abkhaz and Abaza. In Kartvelian the number of vowels is quite moderate: 5 phonemes in Georgian, Megrelian and Laz; a somewhat richer vocalism characterizes the Ingilo and Fereydan dialects of Georgian. The number of vowels in Svan, due to secondary developments, amounts to 18. In NEC the picture is quite variegated, from the moderately developed vocalism in languages like Avar, Lezgi, Aghul (5 vowels), Tabasaran (6), Lak (7) to richer systems of Rutul (8 vowels), Budukh, Kryz (each 9), Botlikh, Karata (each 10), Hinukh, Archi, Udi (each 11), and still richer in Godoberi (13), Tsakhur (14), Khvarshi (16), Chamala (17), Akhvakh, Tindi (both 20), Bezhta (23), Tsez, Hunzib (both 24), Bats (15 vowels + diphthongs), Ingush (28) and Chechen (15 vowels, 15 phonemic diphthongs).

Among the vocalic traits, which can tentatively be listed as common Caucasian, one can mention one positive and one negative:

1. The presence of schwa (or a schwa-like phoneme). It is attested in all NWC languages. In Kartvelian it is present in Megrelian and Svan, both bordering on Abkhaz, and is reported for some forms of Laz. This phoneme is unknown in Chechen or Bats, but is attested in Ingush, where it is of later origin. Phonemic schwa is present in 10 Daghestanian languages (Khvarshi, Hunzib, Archi, Rutul, Tsakhur, Kryz, Budukh, Khinalug, Nidzh Udi, Kimil Lezgi), but not attested in 17 others (Avar, Andi, Akhvakh, Chamala, Tindi, Botlikh, Tsez, Godoberi, Karata, Hinukh, Bezhta, Lak, Dargi, Lezgi, Tabasaran, Aghul, Vartashen Udi). At least in some languages the presence of (phonetic) schwa can be attributed to areal

factors (e.g. in Megrelian – under the Abkhaz influence, in Nidzh Udi, Kryz, Budukh, Khinalug, Kimil Lezgi – under the influence of Azeri).

Outside the Caucasian languages, in Iron Ossetic schwa has developed from other vowels, which may suggest an areal stimulus, and in Armenian it was present already in the classical period (i.e. since 5th c. AD).

2. A common negative feature is the lack of monophonemic diphthongs. The exceptions are rare and involve mostly the Nakh languages.

7.2.9. Phonostatistics.

Certain phonostatistic traits can be regarded as specific to the Caucasus. A most characteristic feature here is the difference in frequency of voiced stops, affricates and fricatives: in stops the frequency of the voiced ones is higher than of the voiceless (aspirated or glottalized), whereas in affricates and fricatives the situation is reverse (cf. Melikišhvili 1976: 159; SO 103-104).

Other common Caucasian phonostatistic traits are:
1. In the speech sequence, consonants dominate over vowels.
2. The rarity or, in many Daghestanian languages, absence of the glottalized p'.[24]
3. The rarity or complete absence of the voiced uvular stop G.
4. The rarity or complete absence of labial fricatives v, f; if present, nearly everywhere they are of secondary origin.

7.2.10 Phonotactics

Consonants.

In the consonant systems, the following common traits can be mentioned:

1. The presence of harmonic clusters, which constituents possess identical laryngeal features (voiced, glottalized, voiceless) and which can be regarded as unitary segments; besides, a distinct preference for decessive clusters (labial+dental, dental+velar, etc.) over the acessive (velar+dental) ones (cf. Catford 1977: 292-3).
2. The absence or rarity of the initial r- (with some exception of SC).

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[24]Kodzasov (SO 92) explains this rarity by the universal-phonetic unnaturalness and articulatory difficulty of p', which is doubtful: p' is much easier articulated than many other Caucasian consonants; its rarity, as observed by Trubetzkoy (1987: 55), has probably more to do with the fact of it being the highly marked member of the correlation, as compared with the unmarked voiced or aspirated counterparts, which conditions its structural weakness.

3. The weak devoicing of voiced consonants in final position.

Vowels.

In the vocalic system, the typical Caucasian phonotactical traits are:

1. The absence or rarity of vocalic sequences (hiatus).
2. The prohibition of vowel-initial syllables, which means the impossibility of vocalic Anlaut (SO 104), with few exceptions.[25]

7.2.11. Basic syllable and morpheme structure.

In the majority of Caucasian languages both open and closed syllables are possible (with very few exceptions, like Northern Akhvakh) (cf. SO 105). The common features in the morphemic structure are:

1. The preponderance of mono- or disyllabic nominal roots.
2. Affixal morphemes are mostly represented by the structures like V, C, CV.

7.2.12. Prosody.

Typical for the majority of the Caucasian languages is the presence of dynamic word stress, with some (Daghestanian) languages displaying also probably tonal contrasts.

7.3.   Morphophonology: Ablaut.

Ablaut as a morphological mechanism in used in both NC groups and in the SC languages. In NWC ablaut serves to differentiate transitive and intransitive stems (in Circassian), as well as extravert vs. introvert verb forms. In the Nakh languages ablaut differentiates tense and iterative aspect forms, in Daghestanian it is used to create aspectual forms and imperatives, as well as (e.g. in Dargi, Avar, Hunzib) to differentiate singular and plural nominal forms. In Lak the apophony $a \sim u$ is used in the creation of the so-called oblique stems. In Old Georgian, ablaut was used to express transitivity/intransitivity (cf. SO 65, 109), while in modern Georgian the

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[25]Abkhaz has, due to later developments, a number of roots with initial a-; as to the hiatus, in Georgian and Laz the combinations of vowels are more or less normal; by contrast, in Megrelian and Svan vocalic sequences are often avoided by the insertion of epenthetic sounds; a vocalic anlaut can be avoided in Svan by means of prothetic resonants and in Megrelian – by the glottal stop.

apophony *e/i*, *ø/a* characterizes the opposition of Present vs. Aorist forms (cf. Shimomiya 1978: 112).

7.4. Morphosyntax.

The morphological similarities between the Caucasian languages can be summed up as follows:

1. Agglutination as a major structural type, with some elements of fusion. Turkic languages are also agglutinative, while Armenian and Ossetic are fusional, with elements of agglutination; Kurdish and Neo-Aramaic are also fusional. What is interesting here, is that Armenian (in nominal plural paradigms) and Ossetic (in its case system) have developed elements of agglutination. If we recall that Turkish is actually a new language in the area (from the 13th-14th centuries), which replaced the predominantly fusional Greek and Armenian, the agglutinative character of the Caucasian languages, partially spread to some basically fusional languages of the area, acquires a strong areal significance.

2. All Caucasian languages are characterized by a high degree of synthesis (polysynthetism), having its peak in NWC, with more moderate forms in NEC, the SC languages being somewhere in between (cf. Klimov 1986a: 147).

3. A weak formal distinction between nouns and verbs, and between nouns and adjectives (SO 66).

4. A well developed system of verbal tempora (SO 68).

5. Diachronically, greater antiquity of aspectual over temporal distinctions: the latter have been formed on the basis of the former (SO 71-2).

6. The presence of a morphologically expressed category of evidentiality attested in the majority of the indigenous Caucasian languages[26], as well as in Armenian, though lacking in Ossetic and diminished (under the influence of Persian) in Azeri. Tuite (1999: 5), briefly mentioning evidentiality as a shared feature of the Caucasus area, regards it rather as a 'Circumpontic' or Balkano-Caucasian linguistic feature. Even though evidentiality is indeed attested, besides the Caucasus, in the Balkans (Bulgarian, Macedonian, Albanian) and in Anatolia (Turkish), this still allows us to regard this category as another important pan-Caucasian morphological trait. As a distinct morphological category, evidentiality is not universally attested in the languages of the world but is regarded as "extremely prone to diffusion", and "the emergence and loss of evidentiality systems is often due to intensive

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[26]Tuite rightly notes the absence of the evidential category in Ubykh, but it is certainly present in Circassian. It seems that evidentiality is also lacking in Udi (W. Schultze).

language contact" (cf. Aikhenvald 2003: 21), which is one of the explanations of its spread in the Balkans (presumably, under the influence of Turkish, which means that it is historically a late innovation there; let us remember, that Turkish is also a comparatively new language in the area, and its predecessor in Anatolia, Greek, did not have this category). The widespread attestation of evidentiality across the Caucasus and the possibility of its contact-induced origin in at least some languages of the area render it an important feature of the Caucasian linguistic area.

7. The presence in all three groups of a morphologically expressed category of potential, i.e., morphological means to express ability to produce an action. Examples:

a) in NWC: Abkh *də-z-t'°a-wa-m* '(s)he-POT-sit-PRES:DYN-NEG = (s)he cannot sit down';

b) in NEC: Chech *kxossa-vala* 'to jump-POT = to be able to jump', Bagv *ašt-a-š* 'listen-POT-FUT1 = will be able to listen';

d) in SC: Geo *ar m-e-č'in-eb-a* 'not I/me-IOV-eat-PASS-X = I cannot eat X', Megr *a-č'ar-e(-n)* 'IOV-write-PASS-X = (s)he can write it'.

8. The morphological marking of causative can also be listed among the pan-Caucasian traits.

9. The predominance of postpositional constructions as a common Caucasian trait. Examples:

a) in NWC: Abkh *lara l-ax'* 'she her-to = to her';

b) in NEC: Chech *govr-ana k'elah* 'horse-DAT under = under the horse', Udi *k'oǯ-in beš* 'house-GEN before = before the house';

c) in SC: Geo *mta-ze* 'mountain-at = on the mountain'.

As to the non-Caucasian languages, in Armenian, of numerous prepositions in the classical period (around 6 c. AD) only few survived by the present time, whereas the modern language has developed a great number of postpositions, cf. *jeŕk'-i meǰ* 'hand-GEN/DAT in = in the hand'. Likewise, modern Ossetic, originally prepositional, preserves only two prepositions (*ænæ* 'without', *æd* 'with') and has developed instead numerous postpositions, cf. *xæǯar-y sær* 'roof-GEN head = on the roof', as contrasted to Kurdish *her deri* 'by the door'. The development of postpositions in both Ossetic and Armenian is attributed by specialists to Caucasian influence (cf. Abaev 1995: 488, 498-499).

10. The attachment of coordination markers to each conjunct as a pan-Caucasian trait, cf. in NWC: Abkh *war-g'ə sar-g'ə* 'you-and I-and = you and me'; in NEC: Chech *vaša a jiša a*

'brother and sister', Avar *gazet-al-gi žurnal-al-gi* 'newspapers and magazines'; in SC: Megr *ma-ti si-ti,* Svan *m-i s-i* 'I-and you-and = I and you'.[27]

11. The presence in the majority of the Caucasian languages of one model of nominal declension: base (root) + plural marker + declension marker, e.g. Ad *λabže-x̌e-mč̣"e* 'claw-PL-INSTR = by/with claws', Lez *ruš-ar-iz* 'girl-PL-DAT = to the girls', Geo *muxl-eb-it* 'knee-PL-INSTR = by/with knees' (cf. Klimov 1986a: 145). The same agglutinative model is manifested in otherwise fusional Ossetic (*k'ux-t-ə* 'hand-PL-GEN = of the hands') and Armenian (*ban-er-i* 'thing-PL-GEN/DAT = of the things'). The development of the agglutinative declension in Armenian could have been stimulated by Caucasian or/and Hurro-Urartian influence (cf. Hurri *šavala-na-až-a* 'year-ART:PL-PL-LOC = in the years', Urartu *ḫuradi-na-we* 'soldier-ART:PL-DAT = to the soldiers'). Interestingly, Classical Armenian had the reverse order of morphemes, cf. *ban-i-w-k'* 'thing-decl.marker-INSTR-PL = by the things' as opposed to modern Armenian *ban-er-ow* 'thing-PL-INSTR'. The declensional model in modern Armenian is thus closer to that of the Caucasian languages and Hurri-Urartian (and, for that matter, Turkish, cf. Tu *köy-ler-in* 'village-PL-GEN = of the villages'), than in Classical Armenian. In Ossetic, this development is attributed to Caucasian influence (Abaev 1995: 496).

12. The importance and in some groups predominance of prefixal conjugation; in NWC and SC prefixes express person (in Abkhaz also nominal class), version, potential and other grammatical functions, in NEC prefixes mostly express nominal classes, cf. Abkh *də-q'a-w-p'* '3P.SG.HUM-be-STAT:PRES-FIN = (s)he is', Chech *b-aha* '4class:NHUM-carry = it carries', Avar *j-igo* '2class-be = is, exists', Geo *v-ar* '1P.SG.-be = I am'.

13. Another pan-Caucasian feature is the use of directional and orientational preverbs, attested in all three groups. The diffusibility of preverbs is especially clearly seen in the West Caucasian-Kartvelian zone of interaction. The number of preverbs in the West Kartvelian languages is much higher than in Georgian, Laz boasting 50 preverbs, while Megrelian, directly bordering on Abkhaz (which is characterized by a highly elaborated system of preverbs), has as many as 92 simple and compound preverbs (cf. Čikobava 1977: 15-16). Some of the Megrelian preverbs are directly borrowed from Abkhaz, such as *k'əla-* 'through', cf. Megr *k'əla-sxap'ua,* Abkh *a-k'əl-pa-ra* 'to jump out' (cf. Chirikba 1998: 139).

14. Like the presence of glottalized consonants in the phonological system, in

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[27]Outside the Caucasus, a similar model is found in Latin, Sanskrit, some Uralic and Dravidian languages, Burushaski and Japanese (B. Tikkanen, p.c.), but not in the contiguous languages, which underlines its areal character in the Caucasus.

morphology it is ergativity, which is generally regarded as the trademark of the Caucasian linguistic type. Both NWC and NEC have more or less unambiguous expression of ergative alignment, though even within these groups there can be differences in its formal realization: conjointly by nominal class, person markers plus cases (as in Bats, Dargi, Lak, Tabasaran), by class markers plus cases (as in the majority of NEC languages), by person markers plus cases (as in Circassian and Ubykh), only by cases (as in Lezgi and Aghul) and only by class/person markers (as in Abkhaz). In both NWC and NEC groups ergativity is tense-neutral (i.e. no split).

Against this background, there are serious disagreements among specialists as to the ergative character of Kartvelian, cf. e.g. Hewitt (1995), who defends the traditional view regarding Georgian as manifesting ergativity, and Harris (1990), who treats this language as manifesting active, rather than ergative typology; still others regard Kartvelian as mixed, combining elements of nominative and active systems, with the predominance of the former (cf. Klimov and Alekseev 1980: 299). In general, even if we regard Georgian as manifesting ergative alignment, it represents a split ergative type, realizing its ergative strategy in the past tenses, which differs sharply from what we see in the two NC groups, where ergativity is tense-neutral.

Apart from the indigenous languages of the Caucasus, ergative-like perfect constructions are attested in Armenian, which resemble the Georgian-type split ergativity system and which appeared, as suggested by Meillet (1936: 95), due to the Caucasian, probably SC influence. The split ergativity system in the past-tense transitive constructions is present also in Kurdish and Talysh, which resembles Georgian more closely. Some authors even ascribe the development of the ergative strategy in Kurdish to the influence of some Caucasian idioms (like Hurrian or Georgian), though this explanation will obviously not hold for the origin of split ergativity systems in other Indo-Iranian languages.

15. Group inflection, i.e., the morphological marking of only one constituent of a phrase, is another common pan-Caucasian morphosyntactic trait, cf. Ad *biraq pλəž̌-x̌ä-r* 'flag read-PL-ABS = read flags', Lez *č̌ula v γal-ar* 'black thread-PL = the black threads', Megr *da do ǯima-s* 'sister and brother-DAT = to the sister and brother', Laz *didi ǯal-epe-s* 'big tree-PL-DAT = to the big trees' (cf. SO 56). Of the neighbouring languages, the same is observed in Ossetic, Armenian and Tat (cf. Abaev 1995: 285; Grjunberg 1997: 146).

7.5. Word Formation.

In word-formation, three features can be singled out as having a pan-Caucasian character:

1. The pan-Caucasian parallelism of compounds of the type *bahuvrihi*, formed by the combination of noun and its adjective, e.g. Abkh *a-g°ə-ž°p'a* 'heartless, callous', Lak *dard-du-ssa* 'sad', Geo *gul-gril-i* 'indifferent' (cf. Klimov 1986a: 155; SO 21).

2. Reduplication in all Caucasian groups. Especially interesting are Caucasian parallels in the use of reduplication of a part of the verbal root, the whole root or the root consonant for morphological purposes, noted already by Trubetzkoy (1987: 56-7), who compared it with similar mechanisms in PIE. Cf. the following examples:

   a) in NWC: Abkh *a-h°a-ra* 'to speak' vs. *a-h°h°a-ra* 'to shout', *a-p+č-ra* 'to break' vs. *a-p+čč-ra* 'to break in many pieces';
   b) in NEC: Avar *k'anc'-ize* 'to jump' vs. the durative form *k'anc'-k'anc'-ize* 'to jump incessantly', *bek-ize* 'to break vs. a partial reduplication in *bek-er-k-ize*, Bagv *eta* 'to fly' vs. *et-ita* 'to fly (multiple action)', *b=uq'u* 'to cut' vs. *b=uq'uq'u* 'to crumble', Tsakh imperfective *ikan* 'to want, love' vs. iterative/perfective *ikikin*;
   c) in SC: Geo *titxn-*, Megr *txitxon-* 'to make (oneself) dirty', etymologically derived from Geo *tixa* 'clay', Megr *dixa* 'earth, land, place', Geo *ʒg(*-)er-* 'to drum' vs. *ʒig-ʒig-* 'to shake, tremble' (cf. Testelec 1992: 161-2).

   Of the other languages of the area, cf. similar constructions in Armenian: *ost-n-el* 'to jump', *ost-ost-el* 'to jump repeatedly'.[28]

3. Another interesting areal feature is the popularity of echo-compounding, i.e. the combination of two words or roots, the second of which is the phonetically modified form of the first one. Especially popular is the use of the resonant *m-* as the substitute of the initial sound of the second member of such compounds, cf. Abkh *a-k'°ša-mək'°ša* 'all around', Hunz *has-mus* 'horizon', Geo *axlo-maxlo* 'near at hand', Megr *erti-morti* 'manners', etc. This *m*-reduplication actually represents a much wider areal feature, including also Azerbaijan, Armenia, Turkey, Iran, India and even the Balkans (from Turkish ?). But, apart from *m-*, other consonants can also be used for such a purpose. A variant of such type of reduplication is the change of the root vowel in the second constituent, which is especially typical for SC and NEC.

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[28] I am grateful to Hrach Martirosyan for providing me with this and some other Armenian examples.

7.6. Syntax.

In syntax common Caucasian traits are:

1. A verbo-centric sentence structure in all three Caucasian groups, the finite predicate being the syntactically dominant part of the sentence (Klimov 1986a: 152; SO 36).

2. The presence in all groups of the so-called "affective" or "inversive" construction: the verbs belonging to the group of *verba sentiendi* or *verba habendi* present the experiencer NP in the Dative (in the Daghestanian languages sometimes also in the Locative) case, while the source NP is in the nominative (absolutive) case. Examples (cf. SO 44-46):

    a) in NWC: Ad *š°əzə-m* (ERG/OBL) *q°ă* (ABS) *jə-ʔă* 'the woman (ERG/OBL) has a son (ABS)';

    b) in NEC: Ing *so-na* (DAT) *ford* (ABS) *bainab* 'I (DAT) saw the sea (ABS)', Avar *insuje* (DAT) *žindirgo λimer* (ABS) *boλ'ula* 'the father (DAT) loves his child (ABS)';

    c) in SC: Geo *bavšv-s* (DAT) *deda* (ABS) *uq'vars* 'the child loves the mother'.

3. All three groups are characterized by relatively free word order. Here the most general principle is the preposing of the governed word before the governing one. The subject NP has a tendency to occupy the leftmost position, the predicate – the final (rightmost) position. The basic word order is thus SOV.

4. Another pan-Caucasian trait is the presence with a group of semantically transitive verbs of indirect, rather than direct objects, whereby a would be direct object is being expressed by an indirect object. Examples (cf. SO 58-9):

    a) in NWC: Abkh intransitive *d-lə-sə-jt'* 'he (ABS)-her(OBL)-hit = he hit her', as opposed to the transitive *də-z-ba-jt'* 'her (ABS)-I (ERG)-saw = I saw her', Kab *ʔăx°ă-r* (ABS) *žămə-m* (ERG/OBL) *baš-č'ă* (INSTR) *jăwa* 'the shepherd (ABS) hit the cow (ERG/OBL) with the log (INSTR)';

    b) in NEC: Chech *vaša-s* (ERG) *žalie-na* (DAT) *γaž* (ABS) *jetta* 'the brother (ERG) hit the dog (DAT) with the log (ABS)';

c) in SC: Geo *gvel-ma* (ERG) *uk'bina bavšv-s* (DAT) *pex-ze* 'the snake (ERG) bit the child (DAT) at his leg', Svan *dede* (NOM) *lexq'ajan bobš-s* (DAT) *aq'baži* 'the mother (NOM) kissed the child's (DAT) cheek'.

5. In genitive constructions of the structure N+N, the possessor constituent precedes the possessed one. Cf. in NWC: Ub *a-məzə-n γə-č'ə*, Abkh *a-č'k'ʷən jə-čə* 'the boy's horse'; Ing *nana koč* 'mother's dress', Lez *čuban kitab* 'girl's book'; Svan *mare-m-iš kor*, Laz *k'oč-iš oxori* 'man's house'. The same order is found in both Ossetic and Armenian (cf. Rogava 1987: 9).

7.7. Lexical semantics.

7.7.1. The nominal system.

The common features in the nominal system are the presence of semantic categories of animate vs. non-animate, on the one hand, and of humans vs. things, on the other hand, found in all groups of Caucasian languages and expressed in various classes of nouns and verbs (cf. SO 7).

7.7.2. The verbal system.

In the semantic organization of the verbal system all three groups manifest the following common traits:

1. The dichotomy between stative (e.g. 'be sleeping', 'be seated', 'be lying') vs. dynamic (e.g. 'to fall asleep', 'to sit down', 'to lie down') verbs. This dichotomy manifests itself, in particular, in the fact that stative verbs lack some (sometimes the majority) of the temporal forms which the dynamic verbs possess; often there are also different affixes to mark stative and dynamic verbs. In many languages the nominal base can be used for forming stative verbs.

2. The presence in all three groups of ambitransitive or labile verbs, which, unlike fundamentally transitive or intransitive verbs, are, depending on the context, either transitive or intransitive, with implications for morphology and syntax. These verbs can be agentive, of the type of Abkh *s-pa-wa-jt'* 'I-knit-PRES-DYN:FIN = I am (busy with) knitting' (ITR) vs. *jə-s-pa-wa-jt'* 'it-I-knit-PRES-DYN:FIN = I am knitting it' (TR), or patientive, cf. Abkh *jə-p+čə-ø-jt'* 'it-break-AOR-DYN:FIN = it broke' (ITR), as opposed to the transitive *jə-pə-s-čə-ø-jt'* 'it-PREV-I-break-AOR-DYN:FIN = I broke it'.

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3. The presence in all groups of suppletive verbs for singular and plural arguments (in NWC this phenomenon is limited to Ubykh). The examples are from (SO 17):

   a) NWC: Ub *s(ə)-* (SG) vs. *ž°a-* (PL) 'to sit', *t°-* (SG) vs. *x̂a-* (PL) 'to stand, be somewhere', *t°a-* (SG) vs. *q'a-* (PL) 'to give';

   b) NEC: Bats *daar* (SG) vs. *daxk'ar* (PL) 'to come', *lallar* (SG) vs. *laxk'ar* (PL) 'to drive away', Lak *ivč'an* (SG) vs. *lit'un* (PL) 'to kill', Archi *k'is* (SG) vs. *xvis* (PL) 'to die';

   c) SC: Geo *ǯdoma* (SG) vs. *sxdoma* (PL) 'to sit', *vardna* (SG) vs. *cvena* (PL) 'to fall'.

4. The presence of the lexico-grammatical class of deverbal nouns or masdars. Masdars resemble the English gerunds, manifesting both nominal and verbal features, and can be formed, with rare exceptions, from nearly any verb. They are usually not formally differentiated on the principle 'transitive-intransitive', with the exception (sometimes) of Georgian and Adyghe. Unlike SC and NWC, NEC languages have both masdars and infinitives (cf. SO 18), though Old Georgian did have an infinitive.

7.7.3. The pronominal system.

In the pronominal system three common features can be pointed out:

1. The distinction between the interrogative pronouns 'who' and 'what' in conformity with the category of "human ~ non-human", cf. examples from (SO 19):

   a) in NWC: Abkh *d-arban* 'who?' vs. *j-arban* 'what?', Ad *x̂ăt?* vs. *səd?*;

   b) in NEC: Chech *mila?* vs. *hun?*, Lak *cu?* vs. *ci?*, Tab *fuž?* vs. *fu?*;

   c) in SC: Geo *vin?* vs. *ra?*, Svan *jär?* vs. *maj?*.

This distinction is of course not specific to the Caucasus, though it is not universal either. In the neighbouring non-Caucasian languages (Ossetic, Azeri, Kumyk, Karachay-Balkar, Armenian) and in the contiguous areas (Turkish, Kurdish) the situation is similar.

2. A three-grade deictic distinction of the type of Latin *hic-iste-ille* in all three Caucasian groups (SO 19). A similar ternary system of deixis is present also in Kumyk (*bu – şo – o*) and Armenian (*ays – ayd – ayn*) and, outside the Caucasus, in Turkish (*bu – şu – o*) (cf. also the Balkan languages), whereas Karachay-Balkar, Ossetic, Kurdish, Tat and Talysh have a binary system ('this' – 'that').

3. A similar ternary organization of the pronominal locative adverbs: 'here' (close to the speaker) ~ 'there' (further) ~ 'over there' (far away) (cf. SO 20). The same three-way opposition of locative adverbs exists in Armenian (*aysteł* - *aydteł* - *aynteł*).

7.7.4. The numerical system.

1. An important common Caucasian feature is the vigesimal model of derivation of numerals, whereby, starting from 'thirty', the numeral 'twenty' lies at the basis of numerals: 30=20+10, 40=2x20, 50=2x20+10, 60=3x20, 70=3x20+10, 80=4x20, 90=4x20+10. In some other Caucasian languages a decimal system is used, based on the numeral 'ten'. The distribution of different systems in the Caucasus can be shown in the following table:

Table 8. Numeral systems in the Caucasus.

Languages		Vigesimal system	Decimal system
NWC		Abkhaz, Abaza, Adyghe, Kabardian dialects, Ubykh	Kabardian, partly Abaza
NEC	Nakh	Chechen, Ingush, Bats	
	Avar	Avar	
	Andic	Akhvakh	Andi, Botlikh, Godoberi, Karata, Bagvala, Tindi, Chamala
	Tsezic	Tsez, Khvarshi, Hinukh	Bezhta, Hunzib
	Lezgic	Lezgi, Aghul dialects, Tabasaran dialects, Udi, Kryz, Budukh, Khinalug	Tabasaran dialects, Aghul dialects, Rutul, Tsakhur, Archi
	Lak-Dargi		Lak, Dargi
SC		Georgian, Megrelian, Laz, Bal and Lentekh Svan	Upper Bal and Lashkh Svan
IE		Ossetic	Armenian, Ossetic shepherds' jargon and Literary Ossetic, Kurdish, Tat, Talysh, Greek

Turkic	Karachay-Balkar	Karachay-Balkar, Kumyk, Nogay, Turkish
Afroasiatic		Neo-Aramaic

Some languages have parallel decimal and vigesimal systems, and some mixed systems. Thus, in Kabardian dialects, sometimes even within one speech community, one can find an archaic vigesimal system, a more popular decimal system and a mixed decimal-vigesimal system (cf. Turčaninov and Cagov 1949: 66-67). Interestingly, in the Kuban dialect of Kabardian, whose speakers have been living since the end of the 18th century amongst the closely related Adyghe, the decimal system is being replaced, under the influence of Adyghe, by the parallel vigesimal one (Keraševa 1977: 35). In Adyghe, which is basically vigesimal, '30' has two parallel forms, vigesimal (20-and 10-and) and decimal (3x10). In Abaza, parallel to a more standard vigesimal system, a decimal system was formed under the influence of Kabardian. In Inkhokvari Khvarshi, beginning from 50, the original vigesimal system is preserved alongside a parallel decimal one borrowed from an Andi language (Bokarev 1967: 427). Archi, an archaic member of the Lezgi subgroup, stands apart, as it forms its numerals 40, 70, 80, 90 by means of the metathesis of the corresponding simple numerals 4, 7, 8 and 9 (cf. Xajdakov 1967: 615). In the dialects of Tabasaran and Aghul one can find the older vigesimal, the decimal and the mixed vigesimal-decimal systems. In some of these dialects the numeration up to 'sixty' is based on the decimal system, and above 'sixty' – on vigesimal, and sometimes both decimal and vigesimal systems are used in parallel (Magometov 1970: 168)

The majority of the Caucasian languages thus use the vigesimal system, and those which use the decimal one either form isolated enclaves against the background of predominantly vigesimal sister languages, like NWC Kabardian and SC Upper Bal and Lashkh Svan, or small contiguous areas, like Andic (with the sole exception of Akhvakh), a part of the Tsezic and Lezgic languages, and the Lak-Dargi cluster. Interestingly, the dialects of Kabardian, Tabasaran, Aghul and Svan still preserve the more archaic vigesimal systems. We can thus see a distinct areality in the distribution of both systems in the Caucasus: the vigesimal West-Caucasian continuum (Adyghe-Ubykh-Abkhaz-Abaza-archaic Kabardian dialects), the South-Caucasian continuum (Bal and Lentekh Svan-Megrelian-Laz-Georgian), and the Nakh continuum (Ingush-Chechen-Bats).

In Daghestan the situation is more complex: here we have the central (Avar) and south-eastern (Lezgic) vigesimal areas versus north-western (Andic, partially Tsezic) and north-eastern (Lak-Dargi and a part of Lezgic) areas being decimal. The Andic languages form a decimal continuum, with the exception of vigesimal Akhvakh, which is contiguous to vigesimal Avar; the

neighbouring decimal Bezhta and Hunzib separate the vigesimal Tsez and Hinukh from Avar; the Bagvala-Chamala-Karata-Botlikh-Godoberi cluster is decimal, and so is the Tsakhur-Rutul-Archi-Lak-Dargi-Aghul-Tabasaran continuum. Finally, the Lezgi-Khinalug-Kryz-Budukh-Udi continuum, despite the decimal Azeri, is vigesimal. The clustering is significant in the sense that it runs across the genetic boundaries: the decimal Lak-Dargi clusters with a part of Lezgic languages, the rest of Lezgic being vigesimal, whereas the vigesimal Akhvakh clusters with the geographically adjacent Avar, the rest of its sister-languages being decimal.

The spread of decimal systems in the Caucasus seems to be contact-induced and secondary in comparison with the older vigesimal systems. Thus, Proto-Lezgic (Alekseev 1985: 68), Proto-Circassian (Kumaxov 1989: 114) and Proto-Abkhaz were vigesimal; the same is true for Proto-Kartvelian. The decimal north-eastern area was in close contact with the decimal Turkic languages (Kumyk, Nogay, Azeri), as well as with Iranian Tat. For the north-western cluster the possible source of the decimal system is not that obvious. For Kabardian, the contacts with the decimal Old Ossetic and Kypchak Turkic languages could have been decisive for the development of the decimal system, and the same explanation holds for the decimal Svan dialects (though later Ossetic itself shifted to a vigesimal system, under the pressure of the neighbouring Caucasian languages).

All non-Caucasian languages of the area (Azeri, Kumyk, Nogay, Armenian, Tat) show fidelity to the original decimal system, except for two languages: Karachay-Balkar and Ossetic, most heavily affected by the neighbouring Caucasian languages. The first has developed a parallel vigesimal system, whereas Ossetic preserved the Iranian decimal system only in counting cattle (it has also been adopted in Literary Ossetic), the "Caucasian" vigesimal system having taken over. In both Karachay-Balkar and Ossetic the development of the vigesimal system of counting is undoubtedly contact-induced, under the influence of the neighbouring Caucasian languages.

Outside the Caucasus, the majority of European languages are decimal, with such vigesimal islands as Basque, old Celtic languages (the vestiges of vigesimal counting are preserved also in some modern Celtic languages and in French), Danish, Faroese, South Italian (Calabrian, Sicilian) dialects; there are some traces of this system in Albanian. In Asia, the few vigesimal languages are Burushaski (isolate), several Indo-Iranian languages of the Pamir and Hindu Kush area (Kati, Pashai, Yazguliami, Yaghnobi, Baluchi), some Tibeto-Burman languages (Dzongkha, Tamang), Munda (Austroasiatic, India), Ainu (isolate, Japan), and some others. In some of these languages the emergence of the vigesimal system is attributed to the influence of substrate (cf. the supposed Burushaski substrate for some of the mentioned Indo-Iranian languages, the pre-Indo-European substrate in insular Celtic and some

Basque/Aquitanian-type substrate in Gallo-Romance) or language contact (e.g. the vigesimal count brought into Sicily and Southern Italy by the Normans).[29] Outside Eurasia, the vigesimal systems are known in some African (e.g. Yoruba), Amerindian (e.g. Maya, Chol, Nahuatl) and Oceanic (Alamblak, Papua New Guinea) languages.

The strong areal character of the Caucasian vigesimal system is obvious: the contiguous non-Caucasian languages have decimal systems, and at least some of the non-Caucasian languages of the area (Karachay-Balkar and Ossetic) have adopted the "Caucasian" vigesimal system.

2. Similar derivation of distributive numerals by means of reduplication of simple forms of the corresponding numerals, cf. Abkh *pš'ba-pš'ba* 'four each', Chech *iss-iss* 'nine each', Avar *šu-šu* 'five each', Geo *at-ati* 'ten each' (cf. SO 23). This reduplication type is used also in Azeri (*iki-iki* 'two each'), Armenian (*čors-čors* 'four each'),[30] Kurdish (*dödö-dödö* 'two each') and may have an areal origin.

7.7.5. Other cases.

The semantic structure of many Caucasian words has similar models. I shall cite here just a few such examples, which have a pan-Caucasian distribution.

1. In all three groups the internal semantic structure of the word 'parents' is based on a compound of the type 'mother+father', with the left place usually occupied by the word for 'mother' (cf. SO 23). Examples:

   a) in NWC: Abkh *anə-j=abə-j* (mother-and-father-and);
   b) in NEC: Bats *nan-da* (mother-father), Lez *dide-buba* (mother-father), Rut *nin-did* (mother-father), Bud *dide-ada* (mother-father);
   c) in SC: Geo *ded-mama*, Svan *dī-mū* (mother-father).

   Of the non-Caucasian languages cf. also Kar-Balk *ata-ana* 'parents', with a different order of constituents ('father-mother').

2. A pan-Caucasian isogloss is a distinction between pairs of adjectives meaning 'thick' and 'thin', the choice of which depends on whether the referent is flat (e.g. paper, leaf, skin) or roundish (as finger, log, etc.; cf. SO 23-24).

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[29]Cf. Blažek (1999: 333-334).
[30]Another model in Armenian is suffixal: *čors-akan* 'four each'; cf. Turkish *dörd-er* 'id.'.

Table 9. Suppletive forms for 'thin' and 'thick' in the Caucasus.

| | 'thin' | | 'thick' | |
	flat	roundish	flat	roundish
Abkhaz	*a-c'aγa*	*a-p'a*	*a-ž°p'a*	*jət°əw*
Kabardian	*p'aš'e*	*psəγ°e*	*ʔ°əv*	*γ°əm*
Georgian	*txel-i*	*c'wrili*	*skeli*	*msxwili*
Svan	*dətxel*	*necin*	*sgel*	*mengre*
Dargi	*buk'usi*	*herisi*	*buzsi*	*buršusi*

The same principle is attested in Ossetic. Outside the Caucasus such semantic correlation is found also in some Indo-Iranian languages, and outside Eurasia – in Quechua-Aymara in South America (SO 23-24; Abaev 1995: 504-505).

3. The combination of meanings 'to drown' (of animate referents) and 'stifle' in one verb, as opposed to a specific verb or a descriptive formation referring to drowning of inanimate referents (SO 25-6).

4. In the majority of Caucasian languages there are different verbs for 'to grow (of animate referents)' and 'to grow (of inanimate referents)' (SO 26).

5. A common Caucasian model of the verb 'to name' is the combination 'name+put' (SO 26); the same model is attested in Armenian and Azeri.

6. The connection of the idea of remembrance (or forgetfulness) with the somatic term 'heart': in NWC: Abkh *a-g°+a+la+š°a-ra* ('to fall into heart'), Ad *g°ə-m jəwəbətăn* 'to remember'; in NEC: Lez *rik'el x̂un*, Dar *urč'ale bixxare*, Cham *jak'več' bidla* (lit. 'to keep on heart'); in SC: Geo *gul-mavic'q'-i* 'forgetful' (with forgetful heart); cf. also Oss *zærdyl daryn* 'to remember' ('to keep on heart') (cf. Abaev 1995: 503).[31]

7.8.   Lexical shapes.

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[31]Outside the Caucasus, cf. similar expressions in Burushaski (B. Tikkanen, p.c.).

Lexicon, even if it shows obvious areal colouring, generally is not regarded as central in the definition of linguistic areas. Just to make a picture complete, we shall briefly discuss here some pan-Caucasian lexical items.

1. A common layer of "oriental" words of Arabic, Persian or Turkish origin which have penetrated all idioms spoken in the Caucasus with the spread of Islam, irrespective of the Muslim or Christian affiliation of the speakers. These vocabularies are characterized by a relative uniformity in form and meaning and can be regarded as belonging to the common pan-Caucasian lexical heritage.[32]

2. A common layer of cultural terms, which are not borrowed from Arabic, Persian and Turkish, but are of local Caucasian origin. Klimov (1986a: 190-194) discusses several dozens of such pan-Caucasian cultural lexemes, found in all three groups and in non-Caucasian languages of the area, whose spread is plausibly explained by areal diffusion. Here are just a few of such items:

a. 'cherry': in NWC: Kab *balij*; in NEC: Chech *bal*, Ing *boal*, Avar, Hunz, Lez, Aghul *baʕli*; in SC: Geo *bal-i*, Megr, Laz *bul-i*; cf. also Oss *bal(i)*, Kar-Balk *balij*, Arm *bal*. Outside the Caucasus the word is known in Persian: *bālū*. The lexeme is quite old in the Caucasus: cf. the regular sound correspondence between Georgian and Megrelian, underlined by Klimov. According to him, in some of the languages the centre of spread was probably Georgian (at least for Nakh and Ossetic, and possibly also for Kabardian).

b. 'chicken, hen': in NWC: Ad *č'etə*, Kab *ǯed* (< PCirc *k̄atə*), Abkh *a-kʷʼtʼə*; in NEC: Bats *kotam*, Chech, Ing *kuotam*, Rut *k'at'*, Tsakh *k'at'e*, Bezh *gudö*, Hunz *gudo*; in SC: Geo *katam-i*, Megr *kotom-i*, Svan *kata-l*. For the Nakh languages Klimov supposes a Georgian source.

c. 'sister/daughter-in-law, bride': in NWC: Ad, Kab *nəse*; in NEC: Bats, Chech *nus*, Avar, Andi, Botl *nusa*, Dar *nus-* (in a word for 'doll'), Archi *nus-dur*; in SC: Geo (17th century) *nusa-dia* 'the wife of uncle', Megr *nosa//nisa*, Laz *nusa//nisa*. The probable source of this word is IE *snuso-s* 'bride', daughter-in-law', which reflects, according to Klimov, some very ancient IE-Caucasian contacts.

d. 'plough': in NWC: Bzyp Abkh *a-kˤatana*, Abzhywa Abkh *a-kʷˤatan//a-gˤtan*; in NEC: Bats *gutaⁿ* 'plough', Chech *guotaⁿ*, Ing *gutaⁿ* 'ploughing (equipment)', Hunz *gotani*, Tsez, Hin,

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[32] Cf. the analysis of such terms in the NC languages in Provasi (1981).

Dar *gutan*, Avar, Lak *kutan*, Lez *köten*, Udi *kötän*; in SC: Geo, Megr *gutan-i*, Laz *kotani*. Cf. also Oss *gūton/goton*, Balk *gaton*, Arm *gutan*, Azeri *kotan*. Klimov supposes Armenian to be the source for Georgian and Megrelian, Georgian as the source for Nakh and probably Dargi forms, and Azeri as the source for the rest of the Daghestanian languages. The word is known also in the contiguous Turkish (*gutan* 'a big plough') and Kurdish (*kotan*). Whatever the actual source and the etymology,[33] the centre of spread is clearly the Caucasus. Turkish could have borrowed this cultural lexeme from Armenian or Georgian, while Kurdish, by its form, is closer to Azeri, Udi and Laz.

e. 'melon' or 'cucumber': in NWC: Abkh *a-naša*, Kab *našă* 'cucumber', Ad *naš* 'melon'; in NEC: Chech *närs*, Ing *nars*, Hunz *neso/u*, Bezh *nesi* 'cucumber'; in SC: Geo *nesv-i*, Svan *k'vax-nesg* 'melon'. Cf. also Oss *nesi* 'melon', Kar-Balk *naša* 'cucumber'.

f. 'bandit, brigand': in NWC: Abkh *abrag'*, Kab *abräǯ* 'armed fugitive, brigand'; in NEC: Chech *oburg*, Ing *äbarg*, Avar *aburik'* 'bandit'; in SC: Geo *abrak'-i*, *abrag-i*, *ap'arek'a*, Megr *abragi*, Svan *ambreg*. The word is known also in Ossetic: *abyræg/abæreg* and in Balkar: *abrek* 'bandit', and penetrated southern Russian dialects, and from there the Literary Russian. Abaev (1958: 25) seeks an Iranian etymology for this word, connecting it with the hypothetical Middle Persian *āparak*, cf. Pahlavi *āpartan* 'to rob', *āpar* 'robbery', Persian *āvāra* 'vagabond'. Whatever the etymology, this pan-Caucasian word has a strong cultural colouring, reflecting the Caucasian tradition of blood revenge or 'noble banditry'.

g. 'head of the feasting-table', 'old man': in NWC: Abkh *a-tahmada*, Kab *themade* 'old man'; in NEC: Avar, Lak, Lez, Udi *tamada*, Dar *tamada* 'old man'; in SC: Geo, Megr *tamada* 'head of the feasting-table'. According to Klimov (1986a: 194), the centre of spread of this word in the Caucasus could be Abkhazo-Adyghean languages, but the word itself, in his view, could have been borrowed from Persian//>Turkish *damad//damat* 'son-in-law'. The lexeme has spread into the non-Caucasian languages of the Caucasus as well (Oss *tamada*, Balk *tamata* 'head of the feasting-table'), and found its way also into Russian (*tamada* 'head of the feasting-table').

7.9. Common traits in phraseology.

More than anything, phraseology (on a par with the cultural lexicon) tends to show strong diffusibility. In the Caucasus, too, it is one of the most visible elements of the Caucasian linguistic area. Many of the Caucasian phraseological units, according to Vogt (1942: 250), are

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[33] On a possible (Middle) Iranian origin see Èdel'man (2007).

calques from one language into another, as testified by the spread of the same models in Ossetic and Armenian (cf. also Klimov 1991: 9).

One of the common traits in phraseology is the use of somatic terms 'heart', 'head', 'eye', 'hand', 'nose', 'mouth', 'face', etc. as kernels of phraseological units. Klimov (1986a: 195) gives the statistical data as to the relative frequency of the use of these terms in Kabardian (NWC), Lezgi (EC) and Georgian (SC) expressions, which can be summarized in the following chart.

Table 10. Somatic terms used in sayings.

Somatic terms	Kabardian	Lezgi	Georgian
'heart'	218	174	248
'head'	58	167	145
'eye'	111	160	55
'hand'	52	111	60
'soul'	130	?	45

8.   The Contours of the Caucasian "Club" of Languages.

In the preceding paragraphs I have attempted to summarize the established structural similarities between the three Caucasian groups. As these groups belong to two unrelated families (NC and SC), it is probable that some of these similarities can be explained by their long-term contact and diffusion, i.e. can have areal nature. On the basis of these commonly shared features it is possible to postulate the existence in the Caucasus of the linguistic union of two unrelated families, the North Caucasian and Kartvelian. In what follows I shall outline the main contours of this Sprachbund, its core and periphery.

8.1. The core members.

The core members of the Caucasian Sprachbund are the unrelated North Caucasian (with its Western and Eastern branches) and Kartvelian language families. Megrelian and Svan have been in millennia-long contact with the West Caucasian idioms, whereas the Georgian dialects and probably also Svan have been in contact with the East Caucasian languages. This contact, as well as a possible NC substrate in Kartvelian (see below), can account for some of the important

structural isoglosses observed between these two families. On the other hand, the Kartvelian influence on the NC dialects was only marginal and manifests itself mainly in the spread of cultural lexicon, not involving, with the exception of heavily Georgianized Bats, grammatical structure.

8.2. The peripheral members.

The peripheral members of the Caucasian language union are Indo-European Ossetic and Armenian, which share at least some of the features pertaining to the Caucasian linguistic area, first of all in phonology, lexicon and phraseology, and partially in morphosyntax. In both cases specialists speak not only of contact-induced phenomena, but also of a Caucasian substrate. Because of the great time-span of the attestation of both languages in the Caucasus, it is of course very difficult to separate the substrate phenomena from those caused by contact with the neighbouring Caucasian idioms. Besides, both languages have experienced Turkic influence, which is especially noticeable in Armenian. Specialists note striking similarities in results of the Caucasian influence on these IE languages, such as the acquisition of glottalized consonants, the disappearance of formal accusative case, the agglutinative character of nominal declension, the development of postpositions, etc. (cf. Vogt 1988: 281; Abaev 1995: 485-488).

8.2.1. Armenian.

Armenian, whose contact with the Caucasian languages goes back some 2,5 millennia, has undergone considerable Caucasian influence (cf. Klimov 1986a: 198-199; Greppin 1981: 501). Especially in phonology we observe a remarkable accommodation of Kartvelian and Armenian systems, both in consonants (three series of stops and affricates) and in vowels (simplification of the putative originally richer system, due to the loss of long vowels).[34] The following features of Armenian can be adduced as manifesting its being an, albeit peripheral, part of the Caucasian linguistic area:

phonology: the ternary system of obstruent stops and binary system of fricatives; glottalized consonants (in dialects situated in the Caucasus or close to it); a rich system of sibilants; the loss of quantitative distinctions in vowels; the presence of phonological schwa.

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[34]Cf. Vogt (1988: 179-180); in Kartvelian only some archaic Svan dialects still preserve the quantitative distinctions in vowels.

morphology:	the absence of the morphologically marked accusative, which coincides with the nominative (with inanimate referents), and with dative (with animate referents); the development of agglutinative (plural) declension; the category of evidentiality; the split ergative-like perfect constructions; the development of preverbs; the loss of grammatical gender; group inflection; the structure of comparative expressions, close to that of Kartvelian and deviating from IE (cf. Shimomiya 1978: 196).
syntax:	the development of declinable postpositions; the SOV word order.

8.2.2. Ossetic

The evidence of the Caucasian influence on this Iranian language, which has been spoken in the Caucasus at least since ca. V c. AD, is abundant (cf. Klimov 1986a: 200; Abaev 1995: 481-509):

phonology:	the ternary or quaternary system of obstruents stops and the binary system of fricatives; glottalized consonants; a rich system of sibilants; a rich system of uvulars; the presence of labialized consonants; the presence in the dialects of hissing-hushing (middle) sibilants; the contrast of aspirated vs. non-aspirated consonants; the development of the "schwa" phoneme; the loss of quantitative distinctions in vowels;
morphology:	the absence of morphologically marked accusative, which coincides either with nominative or with genitive; the development of agglutinative nominal declension; the vigesimal system of numerals; the development of orientational preverbs; group inflection; the development of a series of local cases;
syntax:	the development of declinable postpositions; the SOV word order.

8.3. The marginal languages.

Here belong Turkic Karachay-Balkar, Kumyk, Azeri, Nogay, some forms of Anatolian Turkish in the South Caucasus and in the adjacent areas of north-eastern Anatolia, as well as Iranian Tat. All these languages sometimes bear, apart from numerous lexical items shared with the indigenous Caucasian languages, their phonological or grammatical features. Thus, some of the Kumyk (e.g. the Kaytag dialect) and Azeri (Zakatala-Kakh) dialects, which have NEC substrate, possess glottalized consonants. The Azeri Vartashen and Kutkashen dialects have phonetic features which bear clear evidence of Udi influence or substrate. In the case of Kaytag Kumyk,

there is evidence of Dargi influence, and in Zakatala-Kakh Azeri – of Tsakhur substrate. In the latter Azeri dialect there are also pharyngealized vowels found not only in words of Tsakhur origin, but also in Turkic lexemes, as well as a palatalized *l'*, qualified as the evidence of the Caucasian (Tsakhur) substrate: in Tsakhur this resonant is pronounced as phonetically palatalized (cf. Gadžieva 1979: 157-158, 159, 160). Besides, in the northern areas of Azerbaijan, under the influence of the neighbouring NEC languages, there are cases of the violation of vocalic harmony, as, for instance, in the Nukh dialect; this occurs also in Kumyk (in the Kaytag dialect) and in the dialects of Karachay-Balkar. Some Karachay-Balkar dialects (Baksano-Chegem, Upper Balkar) have glottalized consonants (Gadžieva 1979: 27-29, 57). Phonetically, like the voiced stops in the Caucasian languages (and in Ossetic), Azeri voiced stops are also characterized by weak voice, explained by the Caucasian influence (cf. Gadžieva 1979: 55).

Karachay-Balkar has a parallel vigesimal numerals system, developed under the influence of the Caucasian languages. The formation of present forms in *-a* with the help of the copula in some northern Azeri dialects (Kuba, Derbent, Tabasaran) is thought to have been stimulated by, or even calqued on, the NEC languages. Besides, in Zakatala-Kakh Azeri there are many idiomatic expressions representing calques from Tsakhur. Moreover, some northern Azeri dialects, adjacent to the Caucasian languages, show parallels to the ergative construction of the Caucasian languages (cf. Gadžieva 1979: 57, 81-82, 160).

Outside the Caucasus, some adjacent north-eastern Turkish dialects show traces of Georgian (the population of the historical Georgian provinces of Shavsheti, Artvin, Kars, Artanudzhi, Artaani) or Laz substrates (the areas between Hopa and Rize), manifested in a specific accent, the presence of a number of Kartvelian lexical items and even reportedly (cf. Gadžieva 1979: 57) of glottalized consonants. In phonology, the Rize-Trabzon Turkish dialect is characterized by the delabialization of vowels, which is explained by the Laz influence (cf. Gadžieva 1979: 26).

8.4. The contiguous languages.

These are the languages spoken either in the Caucasus itself or in the immediate vicinity of the Caucasus area: Indo-European Talysh, Kurdish, Persian, historically Pontic Greek, Turkic Trukhmen (close to Turkmen and spoken in the North Caucasus) and Anatolian Turkish, Semitic Neo-Aramaic. The majority of these languages have been spoken in areas contiguous to the Caucasus for a considerable period of time. Though the level of interaction of these languages with the Caucasian idioms was minimal, they sometimes manifest phonetic, grammatical, or lexical features reminiscent of those in the Caucasus. Thus, apart from the "Caucasian" lexical

items, Kurdish and Talysh have a split ergative system, whereas eastern Neo-Aramaic dialects have developed glottalized consonants in place of the original emphatics. Pontic Greek in the areas of Trabzon, Hopa, Rize, etc. contacted for a long time with Georgian, Laz and Armenian, which traces can be seen in its vocabulary.

9.   Multi-tier alliances.

The Caucasus is a broken terrain where, against the background of the pan-Caucasian regional macro-alliance, which represents a Sprachbund of the unrelated NC and SC families (similar to the one attested in the Indian linguistic area), the languages within the three Caucasian groups too form smaller, sub-regional Sprachbünde (which resembles the situation in the Balkan). The NWC, NEC and SC groups have occupied compact geographical zones for a very long period of time, characterized by an intensive internal contact and the spread of regional *lingua francas*. In the Western Caucasus we have a close areal alliance of related Adyghe, Kabardian, Ubykh, Abkhaz and Abaza. Another areal grouping, in the central Caucasus and Daghestan, unites the Nakh-Daghestanian languages. Finally, in the South Caucasus we have an areal union of the related Kartvelian languages: Georgian, Svan, Megrelian (and historically Laz). The geographically neighbouring related languages and dialects also engage thus with each other in a Sprachbund-type relationship.

Within each of the sub-regional groupings there used to be one or, more rarely, two commonly used languages or *lingua francas*. In the Western Caucasus Circassian played a dominant role, serving as a means of communication for Ubykhs and Abazas with their neighbours; as to the Abkhazians, only speakers of some mountain Abkhaz communities might have used Circassian to communicate with their North-Caucasian neighbours. To a certain extent, Circassian did influence Abkhaz in lexicon and phraseology, whereas its influence on Ubykh and Abaza was overwhelming. Within the Nakh-Daghestanian group in many parts it was Avar which was used as a *lingua franca*. Besides Avar, this role was played to some degree also by Turkic Kumyk and Nogay. Within the Kartvelian area it was Georgian which was the dominant language and which has influenced both Megrelian and Svan, and in earlier periods also Laz.

10.   The lower-level alliances.

Finally, there are smaller areal units, formed by the immediately neighbouring idioms which have developed, over a period of a long-term contact, a considerable amount of traits not present or not prominent in sister-languages or dialects outside these 'mini-unions'. One of such local alliances is Georgian-Armenian interaction, partially, as some suggest, based on the Kartvelian substrate in some Armenian dialects.[35] Another example of a close local alliance is the Megrelian-Abkhaz interaction in the Gal (historical Samyrzaqan) area of southern Abkhazia.

In what follows I shall briefly describe the sub-regional and local alliances in the Caucasus, underneath the pan-Caucasian linguistic area. In defining such lower-level areal alignments the relevant terms are the core, peripheral and marginal languages, the dominant idiom and the common superstrate language(s).

10.1. Sub-regional alliances.

10.1.1. The North-Western Caucasus contact area.

number of languages in contact	core languages	peripheral languages	marginal languages	dominant languages or lingua francas	superstrate languages
12	Abaza, Abkhaz, Circassian (Adyghe, Kabardian), Ubykh[36]	Balkar, Karachay, Nogay, (Old) Ossetic	Ingush, Megrelian, Svan	Circassian (for Abaza and Ubykh), Abkhaz (for Ubykh)	Arabic, Turkish, Persian

The NWC languages developed in close millennia-long contact and interaction, leading to remarkable structural uniformity, the conservation of archaisms and parallel innovations. Adyghe and Kabardian had a considerable impact on, respectively, Ubykh and Abaza, and marginally also on Abkhaz, which is especially seen in the layer of Circassian lexical borrowings common to these three languages. Abaza has also interacted with Karachay and Nogay and historically also with Alanian (Old Ossetic) and Megrelian, while Kabardian had contact with Abaza, Karachay-Balkar, Nogay, Ossetic, Ingush and Svan. Adyghe had contact with Ubykh, historically with Byzantine Greek and Ottoman Turkish. Abkhaz had contact with Ubykh,

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[35] Shimomiya (1978: 209) speaks of two parallel language unions in the Caucasus: the (pan-)Caucasian and the Armenian-Georgian one.
[36] The entire Ubykh population was expelled in 1864 by Russians to Turkey, where they lost their language.

Megrelian, historically with Byzantine Greek, Old Ossetic (Alanian) and Ottoman Turkish. All five idioms have a common layer of Muslim (Arabic, Turkish, Persian) words.

10.1.2. The North-Central Caucasus and Daghestan contact area.

number of languages in contact	core languages	peripheral languages	marginal languages	dominant languages or lingua francas	superstrate languages
34+	Nakh, Daghestanian	Ossetic, Kumyk, mountain Georgian dialects	Nogay, Azeri, Tat	Avar, Lezgi, Azeri, Kumyk, Nogay (northern Daghestan)	Arabic, Turkish, Persian

The Nakh-Daghestanian languages have developed in close contact over a considerable period of time, which prevented them from growing apart at a faster pace. Besides, they had contacts with the Turkic languages and marginally with Ossetic and Georgian dialects. On a lexical level, there exists a specific layer of "Daghestanisms", i.e. areally diffused social and cultural terms, such as *laɣ///luk'* 'slave', *šamxal, nucal, ucmi* (titles of rulers), *manɣuš* 'herald', *č°assag* 'date (fruit)', *mahi* 'ivory', *bataɣa* 'fishing', etc. Given the processes of convergence observed in Daghestan, some authors deem it possible to discuss this region within the framework of the theory of "language union" (cf. Abdullaev 1991: 40).

10.1.3. The Kartvelian contact area.

number of languages in contact	core languages	peripheral languages	marginal languages	dominant languages or lingua francas	superstrate languages

15+	Georgian, Svan, Megrelian, Laz, Bats, Kistin Chechen, South Ossetic	Armenian, Udi, neighbouring Daghestanian languages/dialects, Abkhaz, some forms of Turkish	Balkar, Abaza, Azeri, Kurdish, Neo-Aramaic	Georgian, Turkish (in areas of southern Georgia)	Arabic, Turkish, Persian

Like NWC and NEC, the Kartvelian languages have been in mutual contact for a long period of time. Because of the numerical size of its speakers, as well as the political, military and economical weight of Georgia, Georgian has become a dominant language in the Kartvelian area since the early Middle Ages, and it has remained as such until now. Of non-Kartvelian languages, Georgian was in contact with Armenian, Azeri, Ossetic, Nakh and Daghestanian languages, as well as with Turkish (in southern Georgia). Historically, Middle (Pahlavi) and Modern Persian were of major influence on Georgian, as well as Arabic and Ottoman Turkish. As to Megrelian, beside Georgian, it had contacts only with Svan and Abkhaz, and historically with Byzantine Greek and Ottoman Turkish. Svan had contacts with Georgian, Megrelian, Abkhaz and Karachay, marginally with Kabardian and historically with Old Ossetic (Alanian) and probably also with some NEC idioms (see below).

11.   Zones of influence.

Parallel to sub-regional areal alliances, there are languages which have exerted considerable influence on the neighbouring idioms, forming zones of influence, which is most clearly seen in the spread of certain lexical items and sometimes structural traits. Some of the source languages are not members of the Caucasian Sprachbund. The zones of influence can be shown in the following tables.

Table 11. Zones of influence of the Caucasian languages.

donor language	*recipient languages*

Adyghe	Ubykh, marginally Abkhaz
Kabardian	Abaza, Karachay-Balkar, Nogay, Ossetic, marginally Abkhaz and Ingush
Abkhaz	Ubykh, Megrelian
Ingush	Ossetic
Chechen	Ingush, some Kumyk groups, neighbouring Daghestanian and mountain Georgian dialects
Avar	Western Daghestan: Archi, Megeb Dargi, Andi, Tsez, Bezhta, Hunzib, Karata, Tindi, Botlikh, Akhvakh, Godoberi
Lezgi	Aghul, Rutul, southern Tabasaran, Kuba Azeri
Dargi	historically: Archi, Aghul, Tabasaran
Lak	Aghul, Archi, Kubachi, Megeb and Chirakh Dargi
Bezhta	Hunzib
Tsez	Hinukh
Tsakhur	Avar dialects of Upper Samur, Zakatala and Belokan
Georgian	Megrelian, Svan, Laz, Bats, Tsez, Andi, Bezhta, Hinukh, Hunzib, Udi, Antsukh Avar, neighbouring Chechen dialects, Meskhetian Turkish, South (Kudar Iron) Ossetic, Tiflis and Artvin Armenian, marginally Abkhaz and North Ossetic
Megrelian	Southern Abkhaz, Svan, western Georgian dialects

Comments to the table:

a) The Chechen influence on the isolated Kumyk enclaves is visible on both lexical and syntactic levels.

b) Before the spread of Russian, in Western Daghestan the *lingua franca* was Avar, to be more precise, the Avar *koine* called 'bolmats' (*bol mac̄'*), spread over a considerable part of Daghestan and used by the speakers of Andi, Botlikh, Godoberi not only in communication with Avar, but also between themselves. It has been even reported that popular folklore genres of these peoples (songs, fairy-tales, fables) were often produced in Avar, not in their own languages (cf. Ibragimov 1991: 50).

c) There has been a considerable Avar-Tsakhur interaction in the upper Samur region in Daghestan and in the Zakatala and Belokan regions of Azerbaijan, which resulted in many Tsakhur loans in Avar (cf. Dibirov 1991: 119).

d) At present time the Lezgi influence has been weakened by the spread of Russian and Azeri, both serving as alternative *lingua francas* in this area. In the past the influence of Lezgi

was considerable, as indicated by numerous innovational isoglosses uniting this particular grouping of the Lezgi languages (Alekseev 1991: 31).

e) According to Alekseev (1991: 31), a number of isoglosses in Archi, Aghul and Tabasaran, which formerly were qualified as archaisms, can be reinterpreted as having a possible areal character, with Dargi as the probable center of spread.

f) Among the languages of the Tsez subgroup (Tsez, Bezhta, Hinukh, Hunzib, etc.) the knowledge of Georgian was widespread among the men, as the trade, economic and other contacts connected them more closely with the neighbouring Georgia than with Avars and other Daghestanian peoples (Ibragimov 1991: 50). Georgian influence (predominantly lexical) is noticeable in both Udi and in the Antsukh dialect of Avar (Kiazimov and Musaev 1991: 112). Georgian exerted a major influence on the related Megrelian, Svan and to a somewhat less degree Laz. Its lexical borrowings are numerous in Armenian, Abkhaz, Ossetic, Bats, Meskhetian Turkish in Southern Georgia (whose speakers were deported by Stalin to Central Asia), the neighbouring Chechen and Daghestanian dialects. The development of hypotactic constructions and complementizers in Bats and Kistin (Pankisi) Chechen is also attributed to contact with Georgian. The Kartvelian influence on some Armenian dialects goes deeper than simple lexical borrowing, being noticeable in phonology and grammar as well (cf. Klimov 1986a: 198-199). As to the Tiflis and Artvin dialects of Armenian, the system of stops, according to Vogt (1988: 122), is completely assimilated to that of Georgian.

Table 12. Zones of influence of non-Caucasian languages.

donor language	*recipient languages*
Azeri (Turkic: Oghuz)	NC: Lezgi, northern Tabasaran, Kryz, Budukh, Khinalug, southern Avar, Rutul, Tsakhur, Udi; SC: Ingilo Georgian; IE/Iranian: Tat, Talysh
Persian (IE: Iranian)	historically: Georgian, Armenian, Udi, some Daghestanian idioms
Ossetic (IE: Iranian)	NC: Ingush, Chechen; marginally – Kabardian, Abaza, Abkhaz; SC: Georgian, marginally Svan; Turkic: historically – Karachay-Balkar
Turkish (Turkic: Oghuz)	NC: Abkhaz, Adyghe, Ubykh, Kabardian, Abaza; SC: Laz, Georgian, Megrelian, marginally Svan; IE: Armenian, Pontic and Tsalka-Alaverdy Greek

Armenian (IE: Armenian)	NC: Udi; SC: Georgian; Turkic: Azeri, Turkish dialects close to Armenian
Tat (IE: Iranian)	Budukh, Kryz, Udi
Pontic Greek (IE)	SC: Laz; Turkic: some north-eastern Turkish dialects

The peoples of South Daghestan used Azeri for communication not only with Azeris, but also among themselves and with the speakers of Tat (Ibragimov 1991: 51). In the Zakatala dialect of Avar there appeared, presumably under Azeri influence, elements of both class and personal agreement, as opposed to purely class conjugation in the North Caucasian Avar dialects (cf. Nurmagomedov 1991: 76). In Udi, Tsakhur (Sabunchin dialect), Lezgi (Kimil sub-dialect), Budukh, Kryz, Khinalug and the Ingilo Georgian spoken in Azerbaijan, beside many loanwords from Azeri, the evidence of the Azeri influence on their phonemic systems is the presence of the umlaut vowels *ä, ö, ü*, and in Lezgi, Udi, Budukh and Khinalug also the schwa (*ə*) phoneme (Magometov 1982: 179-180). In the Avar spoken in Azerbaijan (the Kakh, Zakatala and Belokan regions), the lateral obstruents, pharyngealization and labialization have been lost; in Zakatala Avar and Tsakhur there is also sporadic de-glottalization, and in Azerbaijanian Tsakhur also the loss of pharyngealization (cf. Dibirov and Čeerčiev 1998: 176-177). In Udi, Azerbaijani Tsakhur and Ingilo Georgian there is a tendency, under Azeri influence, towards vocalic harmony (Gadžieva 1979: 164-165; Magometov 1982: 180). In northern Tabasaran dialects the loss of the majority of nominal classes (except for two), the development of personal conjugation, the tendency towards vowel harmony and the presence of the umlaut vowel *ü* are attributed to the Azeri influence (Magometov 1977). Under the Azeri influence, there is tendency to delabialization in Tsakhur, Khinalug, Kryz, Budukh and those Lezgi dialects which neighbour on Azeri. There is also the substitution in Tsakhur of the phoneme *ӡ* by *z*, which, except for several words, happens also in Udi. Under Azeri influence, Udi has substituted its glottalized consonants by the voiceless non-aspirated ones. Besides, in the Mirzabeyli speech of the Nidzh dialect of Udi the ergative construction of the transitive verbs has been replaced by the nominative one, with the disappearance of the ergative case affix (cf. Gadžieva 1979: 165-167).

Table 13. Languages used for external communication in the Caucasus.

Avar	by Archi, Andi, Akhvakh, Botlikh, Megeb Dargi, etc.

Lak	by Aghul, Archi, Kubachi Dargi, Megeb Dargi, Chirakh Dargi, etc.
Chechen	by Andi, Botlikh, Godoberi, etc.
Georgian	by Megrelian, Svan, South Ossetic, partially Armenian, Bezhta, Hunzib, Tsez
Circassian	by Ubykh, Abaza, Karachay-Balkar, partially Ossetic
Azeri	by Akhvakh, Aghul, Lezgi, Tsakhur, Rutul, Tabasaran, Udi, Khinalug, Budukh, Kryz, Tat, partially Avar and Lak
Kumyk	by Avar, Lak, Dargi

Table 14. Languages used at present or in the past as lingua franca in the Caucasus

Azeri	in Southern Daghestan
Kumyk	in Northern Daghestan
Avar	in Western Daghestan
Nogay	in Northern Daghestan
Circassian	In Western Caucasus
Russian	across the Caucasus (since the second half of the 19th c.)

Until the beginning of the 19th century Turkic Kumyk, beside Avar and Azeri, served as one of the *lingua francas* in foothill and lowland Daghestan, whereas in Northern Daghestan this role was sometimes played by Nogay (cf. Ibragimov 1991: 50). There existed a tradition of sending 8-10 year-old Dargi, Avar and even Russian boys to Kumyk villages to live in families and learn the Kumyk language (Ibragimov 1991: 50-51). In general, seasonal migrant workers from Daghestan (both Daghestani- and Tat-speakers) usually knew one of the Turkic languages (Azeri or Kumyk, sometimes Nogay) in order to be able to communicate with the speakers of various languages of Daghestan. In the 16th-17th centuries Azeri started to be used as a *lingua franca* in southern Daghestan by such peoples as Budukh, Kryz, Khinalug, Udi, Tsakhur, Rutul, Tabasaran, Lezgi, partially Avar and Lak. In the Samur valley of Daghestan, until the 1960s, the Rutuls, Tsakhurs, Lezgis and Laks have used a local Azeri *koine* for mutual communication (cf. Džidalaev 1990: 8-9).

12. The dynamics of historical areal alliances.

Sub-areal and local alignments have been shifting throughout history, contacts between certain languages becoming stronger or weaker, the donor-languages becoming the recipients and vice versa. Thus, in the Abkhaz-Megrelian alliance in the earlier epochs, approximately between the 7th to 12th centuries, it was Abkhaz which played a dominant role and served as a donor, while towards the present time it was Megrelian which was becoming increasingly influential over Abzhywa Abkhaz, especially over its Samyrzaqan variety. In the 7th-12th centuries Alanian (Old Ossetic) lexical elements have penetrated many neigbouring idioms: Chechen, Ingush, Abkhaz, Abaza, Kabardian, Karachay-Balkar, Georgian, Svan, Daghestanian, marginally also Megrelian. After the destruction of the Alanian state by the Mongols (in the 13th c.), their habitat shrunk to several gorges in the Central Caucasus and direct links with the majority of the mentioned languages, except for Ingush, Georgian and Kabardian, had been severed. From a donor language, Ossetic became a recipient, borrowing many elements from Ingush, Kabardian and Georgian.

Some historical alliances ceased to exist due to the disappearance of one of the participants. Thus, old Ubykh-Adyghe and Ubykh-Abkhaz alliances, due to the total exodus of the speakers of Ubykh to Turkey, are now non-existent. The traditional Laz-Pontic Greek alliance ceased to exist due to a near complete disappearance of Greek from what is now north-eastern Turkey. The Laz-Georgian contact, though currently attested only within tiny Laz enclaves in Georgia (especially in Adzharia), was historically more prominent, in the light of the supposed Laz (and Megrelian) substrate in the Western Georgian Gurian, Imeretian and Adzharian dialects (cf. Megrelidze 1938) and of the later Georgian-Laz contacts in north-eastern Asia Minor, before the Turkification of Anatolia and some time after. Besides, it has been suggested that in the past, approximately up to the 5th – 6th centuries AD, Laz directly contacted with West Caucasian languages, now separated from Laz by Georgian and Megrelian. Apart from some lexical borrowings from West Caucasian (e.g. Laz *nusaɣa*, *nisaqʼa* ~ Circ *nəsaɣ°*, Ubykh *nəsaɣ* 'bride', Laz *obɣe* ~ Circ *abɣ°e*, Ubykh *abɣa* 'nest', etc.), there are a number of interesting structural borrowings as well, cf. Laz *kʼai ocʼkʼertʼu* ~ Abkh *bzəja dəjbon* 'he liked, loved him/her' ('to love' = 'to see well', the same model in Circassian and Ubykh).

Table 15. Some historical alliances in the Caucasus.

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historical alliances	dominant idiom(s)	period
Laz-Pontic Greek	Pontic Greek	? – early 20th c.
Laz-Georgian	Georgian	ca. 5th c. – 17th c.
Old Ossetic-Karachay-Balkar	Old Ossetic	ca. 6th c. – 13th c.
Caucasian Albanian-Georgian-Armenian	Georgian, Armenian	ca. 4th c. – 11th c.

13. Substrate and superstrate in the Caucasus.

Quite a large number of words of Arabic, Iranian and Turkish origin constitutes a specific "oriental" superstrate layer common for all Caucasian idioms, as well as for the traditional Indo-European and Turkic languages of the Caucasus. These words started to appear in the Caucasus with the spread of Islam and the establishment of Arabic, Persian and later Crimean Tatar and Ottoman Turkey hegemony over parts of the Caucasus. The relative share of this "oriental" lexicon is different in various languages, and many of such words have entered individual languages not through the direct contacts with Arabs, Persians or Turks, but via the neighbouring idioms. Given that a considerable number of these words, well adapted and regarded by the speakers as an integral part of their native lexicon, are spread across the Caucasus, we can speak about a common "oriental" superstrate in the languages of the Caucasian linguistic area.

Though processes of language shift did not occur in the Caucasus on a large scale, in certain cases this undoubtedly did take place. When languages cease being used by their speakers, they rarely disappear without trace. More often they leave their traces in the languages which replace them: in intonation and stress patterns, often also in morphological and syntactic traits; such traces can especially be visible in toponyms and in local geography- and culture-specific lexicon. The totality of these residual phenomena is referred to as substrate.

In the Caucasian context, specialists speak about the Nakh substrate in Ossetic, in the mountain dialects of Georgian and in sub-dialects of Terek Kumyk, the Alanian (Old Ossetic) substrate in Nakh and in Karachay-Balkar, the Udi substrate in the Ingilo dialect of Georgian (Klimov 1986a: 83, 187-188, 202), the Daghestanian substrate in some Kumyk and Azeri dialects, the Georgian substrate in Meskhetian Turkish and some north-eastern dialects of Anatolian Turkish, the Megrelo-Laz substrate in the Imeretian, Gurian and Adzhar dialects of Georgian (Megrelidze 1938), the Svan substrate in the Lechkhum dialect of Georgian, the Hurro-

Urartian, and partially presumably Kartvelian (cf. Vogt 1988: 116-133) and (e.g. in the Karabakh/Artsakh area) NEC substrate in Armenian, etc.

In Georgia, the general dynamics of the expansion of East Kartvelian-speaking groups to the west can be seen in the replacement of Laz and Megrelian by Georgian in the modern provinces of Guria, Imeretia and Adzharia, as well as in the replacement of Svan by Georgian in the north-western province of Lechkhumi. This is indicated not only by the substrate Megrelo-Laz or Svan lexemes preserved in these dialects, but also by a significant layer of Megrelo-Laz toponymics in Guria, Imeretia and Adzharia (cf. Megrelidze 1938; Kakabadze 1931) and Svan toponymics in the Lechkhumi province of Georgia (the very element *le*- in *lečxum-i* is a usual Svan prefix).

The idea of the NC substrate in Kartvelian was once rather popular in the Kartvelological literature.[37] There is indeed evidence that a part of the NEC-speaking population of Caucasian Albania (Gardabanians in the province of Gardabani, Herians in the province of Hereti, and Tsanarians in the province of Kakheti) underwent linguistic Georgianization by the late Middle Ages. The phonetic, grammatical and lexical peculiarities of the Ingilo dialect of Georgian (now in Azerbaijan) are assumed to be the result of the shift of Udi speakers to Georgian (cf. Klimov 1986a: 187-188). Besides, there are strong indications of a Nakh substrate in the mountainous Georgian dialects, such as Tush, Pshav, Mtiul, Khevsur and partially Kakhetian (cf. Uturgaidze 1966; Klimov 1986a: 184-186), as well as in the central Georgian province of Dvaleti, now populated by the speakers of (South) Ossetic and Georgian (cf. Gamrek'eli 1958). The assimilation of the relic NEC idioms in Eastern Georgia can be explained by the economical, political and military hegemony of Georgians, strengthened by the consolidating role of the Georgian church. The other part of the Caucasian Albanian tribes has shifted either to Azeri, or to Armenian. Bats, Udi, Kryz, Budukh and Khinalug, which form isolated relic NEC islands in the Kartvelian- or Turkic-speaking areas, can be regarded as the last surviving vestiges of the indigenous NEC population of the South Caucasus.[38]

On the territory populated now by speakers of West Kartvelian Megrelian and Laz, some authors envisage traces of ancient West Caucasian substrate languages, which is reflected in the toponymics (e.g. the river Supsa in Western Georgia, supposedly containing the Adyghe formant *-psä* 'water, river'), as well as in the Megrelian lexicon, morphology (e.g. the prolific system of preverbs, some of which were directly borrowed from Abkhaz) and syntax; a part of these features can be traced also in Laz (cf. Čikobava 1942; Hewitt 1992; Chirikba 1998). Vogt (1988: 466) regarded the ancient contact of the speakers of SC with the NWC (Circassian) population

[37]Cf. Džavaxišvili (1950: 247-8), Schmidt (1952: 10, 13), Čikobava (1977: 14-16).
[38]The appearance of Kists, or Pankisi Chechens in Eastern Georgia is the result of a later (19th century) Chechen migration from the Central Caucasus.

on the Black Sea coast, in the area between Trebizond (Trabzon) and Phasis (modern Rioni) in the period between the 7th and 4th centuries BC, as "undoubtedly" the source of innovation for Megrelo-Laz.

As to the fourth member of the Kartvelian family, Svan, some earlier authors even regarded it as a mixed language (cf. Marr 1916: 15; Deeters 1957: 12). According to Vogt (1988: 467), though Svan neatly preserves Kartvelian morphology and syntax, and less so its phonemic system, its vocabulary differs substantially from that of the sister-languages and can be the result of contact with the other Caucasian languages, in particular with Circassian. One of the examples of such contacts is the Svan pronoun *xedi* 'which', presumably a loan from the Circassian interrogative and relative pronoun *x̂et* 'who'. It has also been assumed that the Svan ergative suffix *-m* might have been borrowed from Circassian. Furthermore, in Svan, as in Circassian, the ergative case form can be used as a basis for other cases (the so-called "principle of two stems"), a trait alien to other Kartvelian languages, but present both in Circassian and in the NEC languages, cf. Svan (Upper Bal) *mār-ēm-iš* 'man-ERG-GEN = of the man', Ad *c'ǝfǝ-m-č''e* 'man-ERG-INSTR = by the man' (cf. Čikobava 1977: 15). Another possible Circassian borrowing, noted already by H. Schuchardt, is the 3rd person verbal plural suffix *-x* in the forms like *leg-x* 'they are standing', which has no Kartvelian parallels, cf. the Circassian plural nominal and verbal suffix -*x̂(e)* (e.g. *ma-k'ʷe-x̂* 'they are going').

Despite these and some other interesting morphological and lexical parallels between Svan and West Caucasian (specifically, Circassian), it is clear now that the early claims of a major Circassian influence on Svan morphology or of the mixed (Kartvelian-West Caucasian) character of Svan have been exaggerated. On the other hand, some authors now assert the presence in Svan of a lexical layer of the NEC origin, which can partially be attributed to Nakh, and partially to Daghestanian source. According to Fähnrich (1986: 32), who suggests a NEC substrate in Svan, the contact of Svan with the NEC languages must have occurred before the settlement of Ossetes in their present habitat in Georgia.

It should be noted that, indeed, some typological traits render Svan closer to Nakh and Daghestani (specifically, Ando-Tsez languages), rather than to the related Georgian and Megrelo-Laz and, for that matter, the contiguous Abkhaz or Circassian. These features include:

a. in phonology – the elaborate system of vowels (simple, long and umlauted) and diphthongs, which sharply distinguishes Svan from both the rest of the Kartvelian languages and from NWC; interestingly, at least partially these features are found also in those northern Georgian dialects – Tush, Khevsur, etc. – which have undergone a substantial Nakh influence or are even thought to be based on a Nakh substrate;

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b. in morphology – the presence of the exclusive-inclusive distinction in personal pronouns, also lacking in Kartvelian and in the NWC languages, but present in Nakh and Daghestanian. The Svan decimal numeral system connects it directly with Ando-Tsez languages, whereas Georgian, Megrelo-Laz and NWC (with the exception of Kabardian) are strictly vigesimal.

Though the idea of the Circassian origin of the Svan ergative suffix is not popular in the modern Kartvelological literature, the declensional model of Svan according to the "principle of two stems" can well be areal, resulting from the influence of the NEC languages, in which the "second" (oblique) stem is based on the ergative or genitive. The presence of these similarities between Svan and Nakh-Daghestanian languages, which occupy geographical zones now remote from each other, can indicate the existence of an ancient Central-Caucasian union between Svan and some Nakh and Daghestanian dialects.

In Azerbaijan, the (North) Caucasian layer in Turkic Azeri is explained both by its contacts with the Caucasian languages and partially by the NC substrate in the northern Azeri dialects. The north-eastern part of Azerbaijan is still inhabited by the ethnically heterogeneous population, including, besides Azeri, also Iranian Tats and speakers of NEC languages, such as Lezgi, Avar, Tsakhur, Kryz, Budukh, Khinalug, Udi, etc. Such Daghestanian features as the presence of glottalized consonants, the lack of the possessive category, and the lack of vowel harmony are attested in the Kutkashen-Vartashen, Zakatala-Kakh, Kuba, Terekemy and Lower-Katrukh dialects of Azeri, conditioned by, respectively, Udi, Tsakhur and Lezgi substrates (cf. Džidalaev 1998: 125). Similar non-Turkic features in phonetics, morphology and vocabulary are found also in some Kumyk dialects, specifically, in Kaytag, Lower Kumyk ("podgornyj") and partially in Buynaksk, where they are explained by the influence of Tabasaran, Lak and Avar substrates (Džidalaev 1998: 125; Mikailov 1954: 12-13). As to the Kaytag dialect, its non-Turkic phonological features include the presence of glottalized and geminate consonants, the affricates ʒ and c, the voiceless velar fricative x̂, the pharyngealized ä, the lack of vowel harmony, etc. The possible substrate language in this case is supposed to have been the Khaydak dialect of Dargi. The other cases of the NEC substrate in Caucasian Turkic are: the Zakatala-Kakh dialects of Azeri, based on the Tsakhur and Avar substrates, the Kuba dialect of Azeri, based on Lezgi, the Lower-Katrukh dialect of Azeri, based on Lak, the Tabasaran sub-dialects of Azeri, based on Tabasaran, and the Lower ("podgornyj") dialect of Kumyk, based on the Dargi and Avar substrates (Džidalaev 1987: 316).

In Armenia, which is currently nearly completely Armenian-speaking territory, the traces of ancient pre-Indo-European substrate languages (most importantly, Urartian) are found in

toponyms and in the lexicon. Besides, some authors envisage also the presence of a Kartvelian substrate, which seems to be not East Kartvelian (i.e. Georgian), but West Kartvelian (i.e. Megrelo-Laz), which is indicated by the phonetic shape of the substrate words, which are closer to Megrelo-Laz (cf. Vogt 1988: 127-128). According to Pisowicz (1967), the substrate, which was supposedly close to the Caucasian languages, played a major role in consonant shift in Armenian.

Discussing the substrate phenomena in Armenian and Ossetic, Abaev (1995: 487-488, 498-499) thought that the absence of a morphologically marked accusative in both languages, the loss of grammatical gender and the development of postpositions are due to the common Caucasian influence or substrate. Cf. also K-H. Schmidt (1972: 4) on the development of the common type of agglutinative declension in Armenian and Ossetic due to the areal pressure.

In general, though the study of substrate phenomena (including toponyms) in the Caucasus promises to bring about very interesting results, much is still to be done here, despite interesting work undertaken by some authors, cf. especially Abaev (1933; 1995), Megrelidze (1938), Uturgaidze (1966), Fedorov (1983), Klimov (1986a; 1994), Vogt (1988), Fähnrich (1986; 1988), and Hewitt (1992).

14. The position of Kartvelian among the Caucasian languages.

Despite the fact that the Kartvelian languages manifest remarkable structural similarities with the North Caucasian languages on all linguistic levels, by some significant parameters they deviate from the canonical "Caucasian" type as attested in both North Caucasian groupings. Specialists even speak of a structural-typological split between NC and SC (cf. Klimov 1986a: 156). Indeed, when there are exceptions from the pan-Caucasian patterns, it is more often Kartvelian which deviates.

In phonology, though the SC languages, like NC, have glottalized consonants, they do not have labialized, palatalized, pharyngealized or strong consonants, which play important role in the North Caucasian languages and which are reconstructable (apart from palatalization) also for Proto-NC. The obstruent laterals, present in both NC groups and going back to Proto-NC, are not attested in modern SC languages, nor can they be reconstructed for Proto-Kartvelian. In general, the relative simplicity of the SC phonemic system renders it closer to such Indo-European languages of the area as Ossetic and Armenian, rather than to North Caucasian. As noted by G.V. Cereteli, "There is a full typological affinity between the phonological systems of Kartvelian, Armenian and Ossetic" (cf. Gamkrelidze and Mačavariani 1965: 46-7).

In morphology, there are no traces of nominal classes in SC, attested in both NC groups. The presence of relative pronouns in Kartvelian contrasts with their absence in NC. As to such proto-typical "Caucasian" morphosyntactic feature as ergativity, both NC groups are truly ergative, whereas SC, though displaying some ergative-like constructions is, according to Klimov and Alekseev (1980: 299), in essence nominative-active, rather than ergative (cf. also Harris 1990; Tuite 1999; but cf. Hewitt 1995). Passive diathesis is a normal phenomenon in Kartvelian, but not in NC.

In syntax, SC hypotactic structures are built as they are in IE, with finite verbs in both main and subordinate clauses, interconnected by complementizers. By contrast, in NC we normally have non-finite verbs in subordinate clauses, and no complementizers.

It has been noted (cf. Deeters 1957: 14-16; Charachidzé 1967: 62; Vogt 1988: 504) that in some important aspects Kartvelian shows a closer affinity with the IE structural type, than with the Caucasian one. Taking into account, in particular, the hypotactic constructions in Kartvelian, G. Schmidt (1952: 5) speaks about the "obvious Indoeuropeanization" of Kartvelian. Rogava (1977: 30) also thought that the development of hypotactic constructions in Kartvelian is due to the influence of IE languages. Gamkrelidze and Mačavariani (1965), on the basis of the analysis of Kartvelian resonants and ablaut phenomena, even proposed an Indo-European-Kartvelian Sprachbund. The same is suggested by Shimomiya (1978: 198) on the basis of IE-SC parallels in relative pronouns and in the structure of complex sentences, especially those containing relative clauses, which can be, according to him, ascribed to the influence of the IE syntax. Gamkrelidze and Ivanov (1984: 252-263, 871, 879) also suggested an ancient areal unity of these two families on the basis of the structural isomorphism of the Kartvelian and Indo-European consonant system, the presence of syllabic and non-syllabic resonants, the similar structure of root and affixal morphemes, the ablaut mechanisms, as well as the presence of the common cultural vocabulary.

Typologically, Kartvelian vacillates between NC and IE, sometimes sharing important features with the one, sometimes with the other. This particular intermediate position of Kartvelian may probably be regarded as an indication of the fact that it has evolved on a territory situated between the Proto-NC and Proto-IE habitats. This assumption, based on the structural traits of Kartvelian, can also be corroborated by the presence in Proto-Kartvelian of "cultural" vocabulary, connecting it, on the one hand, with NC (cf. Nikolayev and Starostin 1984: 30)[39] and

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[39]It is possible that the NC and IE habitats were also in contact, as indicated by the NC "cultural" vocabulary of IE origin (cf. Nikolayev and Starostin 1984: 30-32). Cf. also the discussion of the structural-typological phonological parallels between NWC and IE in Colarusso (1981), who also suggests ancient areal contact, whereby the NWC habitat falls between PIE and PK (pp. 481, 496, 551). Kortlandt (1995: 94) speaks even of the possibility of IE-NWC Sprachbund, suggesting that the IE sound system originated as a result of strong NWC influence.

on the other hand, with IE (cf. Klimov 1986a: 171-202; 1994; Gamkrelidze and Ivanov 1984: 877-880). It has been assumed (cf. Vogt 1988: 505; Klimov 1986: 171-202) that before Kartvelian became a full-fledged member of the Caucasian "club" of languages, it underwent a substantial level of contact with Proto-Indo-European, or with some very old members of IE.[40] Deeters (1955: 26; 1957: 14, 16) regarded SC as a mixed type, standing between IE and NWC languages, a kind of an Indoeuropeanizied West Caucasian, and was wondering whether this was the result of an IE superstrate in Kartvelian.

The complicated character of the evolution of Kartvelian can be demonstrated, for instance, by the analysis of its numerals. Thus, PK *sam- 'three' (Geo sam-, Megr, Laz sum-, Svan semi-) might be brought into connection with Lak šam-a, Khin pš°a 'three', Tab sum- in sum-č'ur, Burshag Aghul šin- in šin-c'ur 'thirty' ('three + ten').[41] Another PK numeral, *xu(sᵢ)t- 'five', can be linked to such NC forms as Lak x:u-, Kubachi Dar x̂u, Tab x̂u-b, Aghul ʕafu-d, Rut x̂u-d, Kryz fɨ-d, Archi λ:ʷe-jt'u, Khin px̂u, Bats pxi, Abkh x°-ba, Kab tx̂°ə 'five'.[42] The Kartvelian roots for 'hundred' (Geo as-, Megr-Laz oš-, Svan ašir-, äšir-) resemble such NC roots for 'hundred' as Lak t:urš, Dar darš, Lez wiš, Tab warž, Aghul barš, (Burshag) warš, Rut wäš, Tsakh waš, Archi baš, connected with the related forms in NWC (Abkh š°ə-, Circ ša, Ub š°a).[43] On the other hand, the Kartvelian numerals *otxo- 'four' and *eksᵢw- 'six' are assumed to have been borrowed from IE *oktō(u)- 'eight' (presumably, a dual from 'four') and *ueks- 'six', respectively (cf. Klimov 1994: 59-62, 53). Finally, the two other Proto-Kartvelian numerals, *š(i)wid- 'seven' and *arwa- 'eight' are thought to have a Semitic origin (cf. Klimov 1994: 63). If we accept these comparisons, this would mean that Proto-Kartvelian was evolving in a habitat which had a close geographic contact and seemingly lively trade relations with the territories populated by the ancient speakers of NC and IE languages (and also probably of Semitic). Typologically, in the condition of a multilingual environment, numerals can often become the first victims of the influence of dominant, prestige, or economically important languages.[44]

Above we briefly discussed the possibility of a NC substrate in Kartvelian, more precisely, NEC in Georgian and Svan, and NWC in Megrelian and Laz. This would explain both remarkable similarities between the Kartvelian and North Caucasian languages, and the

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[40]Against expectations, IE loans in Kartvelian in general do not show any specific Hittite (Anatolian) connections (cf. Klimov 1994: 15). According to Vogt (1988: 504), Kartvelian shows remarkable affinity with Greek and especially with Armenian.

[41]Cf. Nikolayev and Starostin (1994: 978).

[42]These connections were already proposed by Bork (1907: 23-25).

[43]On the other hand, Klimov (1986: 191) notes the dependence of PK *asᵢir- 'hundred' on a Semitic source, cf. Akkadian ešru 'ten' (in Arabic ʕašra), although this is somewhat more remote semantically from both SC and NC. The comparison of the Kartvelian numeral with Semitic was proposed already by A. Trombetti (1902: 199). Blažek (1999: 85) suggests a possibility of Semitic origin of the NC root as well.

[44]As noted on this account by Gudjedjiani and Palmaitis (1986: 23), "Numerals are weak in Kartvelian: nowadays the Svans often use Georgian numerals similarly as Georgians use Russian numerals".

fundamental differences between them. Like in the case of Ossetic and Armenian, the process of "Caucasization" of Kartvelian could have been a result of combined effects of millennia-long contact and (partially) NC substrate. Even after Proto-Kartvelian split into three individual languages, the SC languages continued, as loanwords and toponymics of Georgia suggest, being in close contact with the separate NC languages. As to the structural and material parallels between SC and Proto-IE, these might have been the result of earlier contacts of Kartvelian, which preceded its contacts with NC. One can presume, that at some point the Proto-Kartvelian-IE ties were broken, due probably to the migration of Proto-Kartvelians towards the more northern Caucasian habitat, where the process of their "Caucasization" started, similar to what had happened with both Armenian and Ossetic, only much earlier and profoundly.

According to Gamkrelidze and Ivanov (1984: 880-881), the split of Common Kartvelian can be referred, based on a glottochronological analysis, to the beginning of the 2nd millennium B.C. The first wave of Kartvelian migrations from the original habitat in central and western parts of the Caucasus Minor to the west and north-west, towards the Kolkhida lowlands, resulted in the formation of Svan, which spread in western Transcaucasia and assimilated the local languages, probably of the West-Caucasian type, which partially could serve as a substrate for Svan. According to these authors, the next wave of the Kartvelian migration westwards, some nine centuries later, pushed the speakers of Svan to the northern mountains and these newly arrived tribes settled in the Kolkhida lowlands and the eastern Caucasian coast of the Black Sea, laying the basis of Megrelo-Laz. The Kartvelian dialects which remained within the confines of the western part of the Caucasus Minor were the ancestors of modern Georgian dialects, whose speakers moved in eastern and north-eastern direction and pushed the original languages of the East Caucasian type to the north. Already in historical times another wave of Georgian migration moved in the western direction, towards the Kolkhian lowlands, assimilating some Megrelo-Laz groups, splitting the Megrelo-Laz unity and causing the creation of the separate Megrelian and Laz languages.

This scenario explains the spread of the Kartvelian dialects rather well from their original homeland in the Caucasus Minor, as well as the traces of the West Caucasian substrate in Megrelo-Laz and of the East Caucasian substrate in Georgian. As to Svan, containing the traces of both West Caucasian and East Caucasian influences, it seems that it has undergone a more complex evolution. The first, NWC, layer may go back chronologically to the period before the Svan migration to the north from the Kolkhian lowlands, when it was in contact with the local West Caucasian dialects, while the second, NEC, layer can be attributed to Svan's interaction with the speakers of NEC languages after migration to the northern mountains, in what is now Svanetia.

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The combined effect of millennia-long contact and convergence with the geographically adjacent NC languages and partially the presence of the NC substrate in Kartvelian can thus be regarded as the most probable explanations for the structural similarities between the unrelated NC and SC languages, which form a genuine Sprachbund of linguistic families.[45]

15.   Conclusions.

The aim of the present paper was to summarize the evidence amassed in the specialized literature of numerous structural similarities between the two indigenous Caucasian families, North Caucasian and Kartvelian, as observed on various levels of their structure – phonological, morphological, partially syntactic, as well as in the semantic organization of their lexicon, in their cultural vocabulary and in phraseology. I argue that this evidence provides a solid basis for the assumption that the two unrelated Caucasian families have formed, over a period of several millennia of contact, a specific kind of union, which Trubetzkoy dubbed "the union of linguistic families". Parallel to the pan-Caucasian Sprachbund, uniting the NC and NEC families, lower-level sub-regional "Sprachbünde" have also evolved, as well as local alliances between the individual languages in close contact.

Some of the features pertaining to the Caucasian language union diffused to the non-Caucasian languages of the area, in the first place, to Indo-European Ossetic and Armenian. These idioms, which have "Caucasian" traits in phonology, morphology, lexicon, phraseology and partially in syntax, can be regarded as peripheral members of the Caucasian Sprachbund. The Turkic languages of the Caucasus, i.e. Karachay-Balkar, Kumyk, Azeri, Nogay, which also share a number of Caucasian traits, are on the margin of the Caucasian linguistic area, as these traits are of a more superficial nature and involve mainly lexicon and phraseology. Additionally, some Caucasian features have "spilled over" to the contiguous languages of the area, such as Semitic Neo-Aramaic, Iranian Kurdish, Pontic Greek and those Anatolian Turkish dialects which have strong Caucasian (Kartvelian) substrate. Finally, the most recent language spoken in the area, Russian, has remained outside of any areal alliance with the idioms constituting the Caucasian language union.

Though many of the pan-Caucasian features discussed here are found in other languages outside the Caucasus, the totality of both area-specific and the more general linguistic traits shared by the two Caucasian families form *a set which is unique to the Caucasus and is not found outside this particular area.* It is highly improbable that the two unrelated linguistic

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[45]Cf. a similar conclusion in Gabunia and Guzman Tirado (2002: 81-82).

families, known to have existed in a close geographic proximity for millennia, could have developed so many common traits independently from each other.

Unlike some other cases of language unions, the main mechanism of the formation of the Caucasian Sprachbund was not the diffusion of certain linguistic traits from some centre to the other languages of the area, but convergence and substrate. More specifically, we are dealing here with the case of unilateral convergence: the Kartvelian languages developing in the direction of the NC structural type.

As to the structural similarities between the NEC and NWC languages, which form two discrete areas separated in the North by Indo-European Ossetic and in the south by Kartvelian, they can be explained as the manifestation of genetic inheritance and parallel development stimulated by tendencies inherent in their common ancestral idiom. There is only marginal interaction of one of the NWC languages, Kabardian, with the NEC Ingush language, which means that the structural similarities between the two NC groups cannot be explained by convergent development. Only a part of these similarities, namely, the cultural lexicon and phraseology, can be attributed to areal diffusion.

I would like to finish this paper by going back to the statement made by Gerhard Deeters in his 1957 paper (p. 13): "All Caucasian languages display common features, so that in any case they, irrespective of their possible genetic relationship, can be regarded as forming a 'Sprachbund' ". Now we are in a better position, as I have tried to demonstrate in this paper, to substantiate this assertion by reliable data.

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Abbreviations:

Abkh	Abkhaz	Lez	Lezgi
Ad	Adyghe	LOC	Locative
AOR	Aorist	Megr	Megrelian
Arm	Armenian	NEC	North-East Caucasian
ART	Article	NEG	Negative
Bagv	Bagvala	NWC	North-West Caucasian
Balk	Balkar	Oss	Ossetic
Bezh	Bezhta	PASS	Passive
Botl	Botlikh	PAvar	Proto-Avar
Bud	Budukh	PAvar-Andi	Proto-Avar-Andi
Cham	Chamala	PCirc	Proto-Circassian
Chech	Chechen	PDar	Proto-Dargi
Circ	Circassian (Adyghe and Kabardian)	PHunz-Bezh	Proto-Hunzib-Bezhta
Dar	Dargi	PIE	Proto-Indo-European
DAT	Dative	PK	Proto-Kartvelian
DYN	Dynamic	PL	plural
EC	East Caucasian	PLez	Proto-Lezgi
FIN	finite	PN	Proto-Nakh
FUT1	Future 1	POT	Potential
GEN	genitive	PRES	Present
Geo	Georgian	PTsez	Proto-Tsez
Hin	Hinukh	PTsez-Khvar	Proto-Tsez-Khvarshi
Hunz	Hunzib	Rut	Rutul
IE	Indo-European	SC	South Caucasian
Ing	Ingush	SG	singular
INSTR	Instrumental	SO	Klimov 1978
IOV	Indirect Object Version	Tab	Tabasaran
ITR	intransitive	TR	transitive
Kab	Kabardian	Tsakh	Tsakhur
Kar-Balk	Karachay-Balkar	Tu	Turkish
Khin	Khinalug	Ub	Ubykh
Khvar	Khvarshi		

Linguistic Map of the Caucasus (© J. Gippert).