J O S T G I P P E R T

The script of the Caucasian Albanians in the light of the Sinai palimpsests

The discovery on Mt. Sinai of two palimpsest manuscripts written in the script of the Caucasian Albanians[1] has dramatically increased our knowledge of the language of the Caucasian Albanian people and their alphabet. On the basis of an international edition project that has been jointly undertaken by Z. Aleksidze, J.-P. Mahe, W. Schulze, M. Tandashvili and the present author[2], nearly all details concerned have been worked out with sufficient certainty to give a thorough account of the inventory of letters and the sound system reflected by them. The present paper addresses the main lines of the structure of the Caucasian Albanian alphabet as established in the course of the edition project.[3]
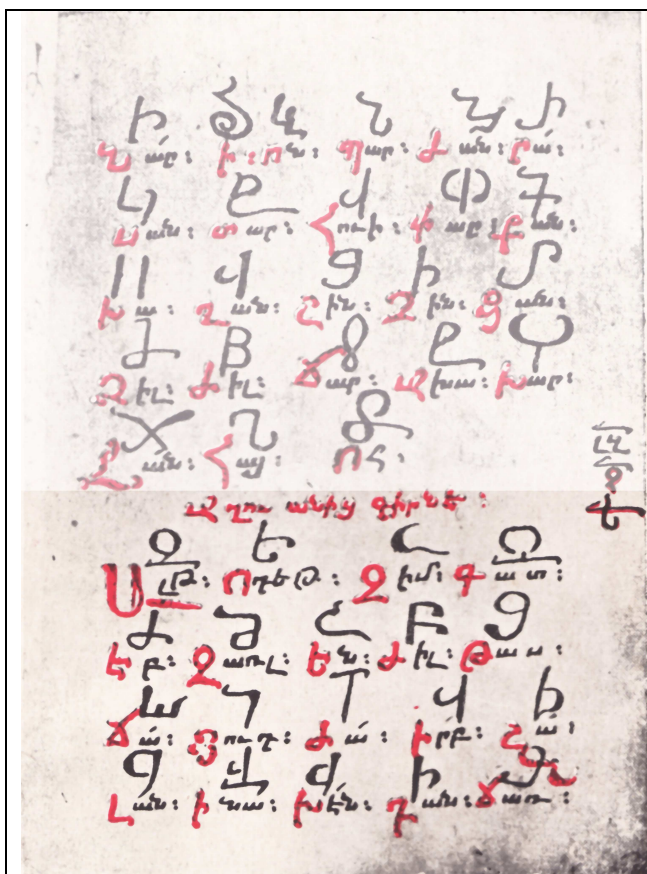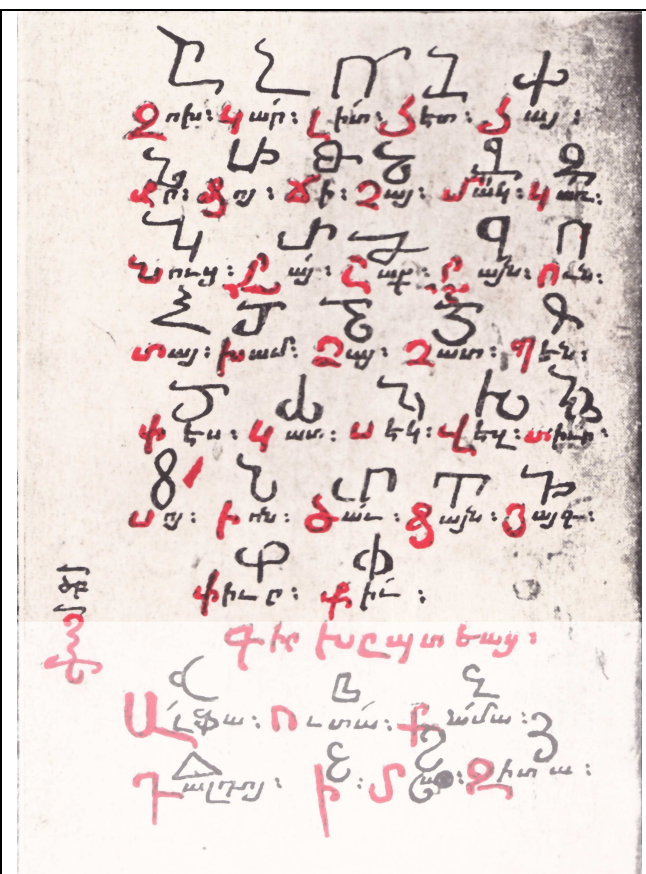

| Fig. 1: Mat. 7117, fol. 142r (now 145r) | Fig. 2: Mat. 7117, fol 142v (now 145v) |

The Caucasian Albanian palimpsests are written in a peculiar script which, prior to their discovery, was only known through a medieval alphabet list provided in an Armenian manuscript (Erevan Mat. 7117, cf. Figs.1 and 2[4]) and a few inscriptions that were unearthed during the construction of the Mingečaur reservoir in North-West Azerbaijan.[5] As the reproduction shows, the Albanian alphabet list follows a register of Georgian characters and precedes a Coptic one in the Matenadaran manuscript; the number of Albanian characters is noted as $\overline{\delta F}$, i.e. 52, in the left margin at the end of the list. Despite the scantiness of these materials, several attempts at establishing the phonetic values of the characters and at deciphering the inscriptions have been undertaken since the discovery of the alphabet list in 1937, the primary clue to all this being the letter names written in Armenian script that are associated with each character in the list.

The following table collates the first eleven characters[6] and their names from the list with the interpretations provided by A. Šaniʒe in 1940 and 1957[7], A.G. Abramyan in 1964[8], V. Gukasyan in 1969[9], and S.N. Murav'ev in 1980 and 1981[10]. As we can see, there are but minor differences between the authors in the reading of the names. There are a few major divergences, however, in the interpretation of the letter names with respect to the phonetic value of the characters they stand for; cp., e.g., the name of the 3rd letter which is restored as *bim (vs. written zim) by Murav'ev while Abramyan and Gukasyan propose to reconstruct it as *gim here. The most noteworthy divergence is met with in the name of the 26th letter, which was read as Ꝓnɹ (i.e. Cʿoy) by Šaniʒe and Ꝓnɹ (i.e. Yoy) by Murav'ev.

CA[11]		Šaniʒe					no.	Abramyan				Gukasyan		Murav'ev			
Letter	Name	Arm.	Geo.	Lat.	(trs.)	ch.		Arm.	rec.	(trs.)	ch.	rec.	ch.	trs.	rec.	ch.	ph.
		Ալթ	ალთ	Alt	(Altʿ)	A₁	1	Ալթ	Ալթ	(Altʿ)	A	Аълт	Aʿ	altʿ	altʿ	a₁	a

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[4] The images are taken from Aḳaḳi Šaniʒe's account of the Albanian alphabet (A. ŠANIƷE, Novootkrytyj alfavit kavkazskix albancev i ego značenie dlja nauki. *Aḳad. N. Maris saxelobis Enis, Isṭoriisa da Maṭerialuri Ḳulṭuris Insṭiṭuṭis Moambe / Bulletin de l'Institut Marr de Langues, d'Histoire et de Culture Matérielle / Izvestija Instituta Jazyka, Istorii i Material'noj Kul'tury im. Akad. N. Ja Marra* 4 [1938] 16–17), which represents the *editio princeps* of the list; in these images, the initial characters of the letter names were manually redrawn in re-applying the red colour in which they appear in the manuscript.

[5] For a comprehensive account of the Albanian inscriptions cf. the edition, vol. I, II-85–94.

[6] For a full synopsis cf. the edition, vol. I, II-2–4.

[7] ŠANIƷE, Novootkrytyj alfavit (cf. n. 4) 28–29 and IDEM, Porjadok bukv gruzinskogo, armjanskogo i albanskogo alfavitov. *Materialy po istorii Azerbajdžana* 2 (1957) 41; the Latin transcription provided by Šaniʒe (here entitled "Lat.") corresponds to the Georgian rendering of the Armenian name forms. In the column entitled "(trs.)" a transliteration of the Armenian names (using the traditional system as created by H. Hübschmann) has been added for the sake of clarity.

[8] A. G. ABRAMYAN, Dešifrovka nadpisej kavkazskix agvan. Erevan 1964, 35 ff.; the column entitled "(trs.)" provides a transliteration of the reconstructed name forms (column "rec.").

[9] V. GUKASJAN, Opyt dešifrovki albanskix nadpisej Azerbajdžana. *Izvestija Akademii Nauk Azerbajdžanskoj SSR, Serija literatury, jazyka i iskusstva* (1969/2) 52–74 (list on p. 67). In the column entitled "ch." the character values listed by Gukasyan in Cyrillic script are transcribed into the Latin transcription used throughout the present work.

[10] S. N. MURAV'EV, La forme interne de l'alphabet albanais caucasien et la phonologie de l'Oudien. *Le Muséon* 93 (1980) 345–374; IDEM, Tri ėtjuda o kavkazsko-albanskoj pis'mennosti. *Iberiul-ḳavḳasiuri enatmecnierebis çeliçdeuli / Ežegodnik iberijsko-kavkazskogo jazykoznanija / Annual of Ibero-Caucasian Linguistics* 8 (1981) 222–325. A revised version of the latter article appeared in French as Trois études sur l'écriture alouanienne. *Revue des Études Arméniennes* 27 (1998–2000) 1–58, with two "Addenda" ib. 59-61 and 62-74. The four columns are reproduced here as printed in Murav'ev's article of 1981, including the peculiar transliteration system used by the author.

[11] Hereafter, "CA" is used to refer to "Caucasian Albanian"; "rec." stands for "reconstructed", "ch." for "character (value)", and "ph." for "phonetic".

CA		Šaniʒe					no.	Abramyan				Gukasyan		Murav'ev			
Letter	Name	Arm.	Geo.	Lat.	(trs.)	ch.		Arm.	rec.	(trs.)	ch.	rec.	ch.	trs.	rec.	ch.	ph.
		Ոդեթ	ოდეთ	Odet	(Odet')	O	2	Ոդեթ	Բդեթ	(Bdet')[12]	B	Бет	B	odet'	odet'	o_2	ȯ
		Զիմ	ზიმ	Zim	(Zim)	Z_1	3	Զիմ	Գիմ	(Gim)	G	Гим	G	zim	*bim	b_0	b
		Գատ	გატ	Gaṭ	(Gat)	G	4	Գատ	Դատ	(Dat)	D	ГъатӀ	Ġ	gaṭ	gaṭ	g_0	g
		Էբ	ებ	Ēb	(Ēb)	$Ē_1$	5	Էբ	Եբ	(Eb)	E	Еб	E	ēb	ēb	e_1	e/ė
		Զառլ	ზარლ	Zaṙl	(Zaṙl)	Z_2	6	Զառլ	Զառլ	(Zaṙl)	Z	Зарл	Z	zaṙl	zaṙl	z_1	z
		Էն	ენ	En	(En)	E	7	Էն	Էն	(Ēn)	Ē	Еън	E'	en	en	e_2	ė/e
		Ժիլ	ჟილ	Žil	(Žil)	$Ž_1$	8	Ժիլ	Ժիլ	(Žil)	ə	Жил	Ž	žil	žil	$ž_2$	ž
		Թաս	თას	Tas	(T'as)	T	9	Թաս	Թաս	(T'as)	Θ	Тас	Ṭ	t'as	t'as	t'	t'
		Ճա	ჭა	Ča	(Ča)	$Č_1$	10	Ճա	Ջա	(Ža)	j	ЧӀа	Č	ča	ča	$č_2$	č̣
		Յուդ	ოჳდ	Jud	(Yowd)	J_1	11	Յուդ	Յուդ	(Yowd)	I	Йуд	Y	yowd	yowd	$y_{-1/-2}$	y/ẏ

With the discovery of the Sinai palimpsests, the basis for the analysis of the alphabet list – and for the Albanian script in general – has radically improved. The phonetic values of most of the characters have now been reliably determined, with but a few exceptions of unattested or uncertain letters remaining. It is true that the alphabet list was still the first clue in deciphering the palimpsest texts; but in contrast to the isolated, extremely short and even fragmentary inscriptions, we can now rely upon a large amount of text, the content of which is well known,[13] which contains foreign elements that were graphically (or phonetically) adapted to the Albanian writing system,[14] and which can be compared word by word with the Udi language (as the modern successor of Albanian)[15] with a view to establishing the sound correspondences involved. What is more, the palimpsests furnish a good deal of attestations of characters used to denote numeric units,[16] thus providing witness to the internal order of at least the first 21 characters of the Albanian alphabet, and remarkably enough, the sequence achieved in this way is exactly the same as the one provided by the alphabet list. On this basis, the list can now be restored in the following way (first 11 characters):[17]

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[12] This is the form given in Abramyan's table, p. 35; on p. 28 the author pleads for Բեթ (*Bet') instead.

[13] As to the contents of the palimpsests – Biblical texts mostly from the New Testament, compiled in Lectionary form, and about one half of St. John's Gospel as part of an original Evangeliary ms. – cf. the edition, vol. I, I-25–37 and vol. II.

[14] Cf. the edition, vol. I, II-79–84 as to a thorough account of foreign elements in the Albanian palimpsest texts.

[15] Cf. the edition, vol. I, II-65–78 as to the relationship between Albanian and Udi.

[16] Mostly Ammonian section numbers; cf. the edition, vol. I, I-32–33 for examples and IV-3 for an index of attestations.

[17] For a full account, cf. the edition, vol. I, II-4–6.

Letter	Name	Actual reading	Intended reading	Reconstr. name	Item no.	CA	Phonet. value	Trans-literation	Num. value
	Ա<u>Լ</u>Թ:	Alt‘:	Ա<u>Լ</u>Թ	Alt‘	*Alt*	1	a	[a]	*a*	1
	Ոդեթ:	Odet‘:	*Բեթ	*Bet‘	*Bet*	2	b	[b]	*b*	2
	Զիմ:	Zim:	*Գիմ	*Gim	*Gim*	3	g	[g]	*g*	3
	Գատ:	Gat:	*Դատ:	*Dat	*Daṭ*	4	d	[d]	*d*	4
	Եբ:	Ēb:	*Եբ:	*Eb	*Eb*	5	e	[e]	*e*	5
	Զար<u>Լ</u>:	Zar̄l:	Զար<u>Լ</u>	Zar̄l	*Zarl*	6	z	[z]	*z*	6
	Են:	En:	*Են	*Ēn	*Ēn*	7	E	[e: / ej]	*ē*	7
	Ժիլ:	Žil:	Ժիլ	Žil	*Žil*	8	Y	[ʒ]	*ž*	8
	Թաս:	T‘as:	Թաս	T‘as	*Tas*	9	t	[t]	*t*	9
	Ծա́:	Čá:	Ծա́	Čá	*Ća*	10	V	[tɕ']	*ć*	10
	Յոդ:	Yowd:	Յոդ	Yowd	*Yowd*	11	y	[j]	*y*	20

Of the total of 52 letters contained in the alphabet list, the assignment of the following 29 can be regarded as indisputable:[18]

No.	CA	IPA	Trl.	Num.		No.	CA	IPA	Trl.	Num.
1	℗	[a]	*a*	1		31	Ꙟ	[n]	*n*	
2	Ƅ	[b]	*b*	2		33	Ꙉ	[ʃ]	*š*	
3	Ϛ	[g]	*g*	3		35	O	[o]	*o*	
4	Ꝙ	[d]	*d*	4		37	ꓔ	[f]	*f*	
5	⅃	[e]	*e*	5		40	Ꝑ	[p']	*ṗ*	
6	Ꙅ	[z]	*z*	6		41	Ƨ	[γ]	*ġ*	
7	Ꞁ	[e:/ej]	*ē*	7		42	Ꙇ	[r]	*r*	
9	Ꙃ	[t]	*t*	9		43	ɦ	[s]	*s*	
11	ꓶ	[j]	*y*	20		44	Ꙓ	[v]	*v*	

[18] Cf. the edition, vol. I, II-6–15 for a thorough account of all 52 characters of the Albanian script.

13	Ч	[i]	*i*	40		45	Ն	[t']	*ṭ*	
15	ๅ	[l]	*l*	60		46	ꝑ	[ɕ]	*ś*	
21	Σ	[k']	*ḳ*	300		50	Ͳ	[w]	*w*	
23	ﻟ	[h]	*h*			51	ʋ	[p']	*p*	
29	ﺍ	[m]	*m*			52	┴	[k']	*k*	
30	ꝛ	[q']	*q̇*							

This list comprises, among others, the characters <b>, no. 2, and <r>, no. 42, whose names appear as *odet* and *kat* in the alphabet list; however, their phonetic values are assured in all positions both by Udi cognates and by loans so that we can safely reconstruct their names as **bet* and **rat*. Cp., e.g., the following pairs:[19]

> *batkesown* 'return' and Udi *batkesun* 'id.';
> *basḳesown* 'sleep' and Udi *basḳesun* 'id.';
> *bezi, beši* 'my, our' and Udi *bezi, beši* 'id.';
> *xib* 'three' and Udi *xib* 'id.';

loanwords such as *hambaw* 'fame, rumour' ~ Armenian *hambaw*, Old Georgian *hambav-i* 'id.' (< Middle Iranian); or

foreign names like *Baraḳ, Elisabet, Yaḳob(os), Betlahem,* and *Ebraowx* 'Hebrews'.

The numerical value of <b> is attested in the palimpsests in numbers such as *y b̄* '22', *l̄ b* '62', *d̄ b* '92' etc. The unexpected spelling of the letter name (*Odet ʿ* instead of **Bet ʿ*) might have emerged from a sequence **alt own bet*, lit. 'A and B' (with *own* 'and' spelt in abbreviated form, → **alt o˜bet ʿ*?), which might have been used to denote the CA "alphabet" in quite the same way as the Armenian was denoted as *ayb ew ben* or *aybowben(k ʿ)* (besides asyndetic *aybbenk ʿ*).[20]

The evidence for the value of the 42nd letter, <r>, is just as striking; cf., e.g., the following pairs:

> *ġar* 'son, child' and Udi *ġar* 'id.';
> *dowrowd* 'beam, wood' and Udi *duruṭ* 'id.';
> *bartesown* 'to leave' and Udi *bartesun* 'id.';

loanwords such as *rabbi* 'Master' and *rabbowni* 'Our Master' ~ Arm. *rābbi / rabbowni*, Georg. *rabi / hrabuni*, Gk. Ῥαββί, Ῥαββουνι (< Aramaic);

> *ašarḳeṭ* 'pupil, disciple' (with metathesis) ~ Arm. *ašakert* (< Middle Iranian); or

foreign names like *Rakel, Aharon, Abraham, Ṗeṭros, Erowsalem*, and *Serebta*.

For the 23 characters not contained in the table above, the determination of their phonetic values is less straightforward. This is mostly due to the fact that they are hardly distinguishable from other characters, are not attested in loan words, have no clear Udi equivalents, or have no counterparts in the Armenian or Georgian alphabets. This holds true for the following groups:

a) Velar and uvular fricatives

The two characters no. 17 and 24 in the list are hardly distinguishable as such in the palimpsests, their difference merely consisting of the closure of the left loop in the former, which is extremely faint throughout. What is more, the two characters seem to be used *promiscue* in many functions, e.g. in the ending of the so-called "dative III" (and secondary cases built upon this) as well as the most frequent nominal plural suffix; cp., e.g., *žax* vs. *žaχ* 'us (dat.)' or *žinowx* vs. *žinowχ* 'some (people, abs.pl.)'. On the basis of the most relia-

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[19] For the attestations of the words quoted below cf. the index of the edition, vol. I, IV-1–42.

[20] Cf. the Nor Baṙgirk ʿ haykazean lezowi, hator A. Venice 1836 / repr. Erevan 1979, 79 s.v. *aybben* for attestations of the Armenian designation, and GUKASYAN, Opyt (cf. n. 9) 64, who argues in favour of the Albanian alphabet having been named *althabet* in accordance with Gk. *alphabet*.

ble attestations, it seems likely that no. 17 represents a velar fricative /x/ and no. 24, a uvular fricative or aspirated stop /χ, q/ (transliterated as *x* in the edition).

No.	CA	IPA	Trl.	Num.
17	ᕁ	[x]	*x*	80
24	-Ⅎ	[q, χ]	*x̣*	

b) Secondary vowels and pharyngeals

The two characters no. 25 and 47 are extremely similar in the alphabet list, too, and there is no way to distinguish them in the palimpsests. The differentiation proposed here in accordance with the edition is simply based upon the context, no. 47 being assumed wherever a <w> follows.

No.	CA	IPA	Trl.	Num.
25	ˋU	[ɒ]	*å*	
47	ˋU-(+ ˋⅠ-)	[y]	*ü*	

The phonetic values of the two characters are not easily determinable either. Most probably, no. 25 represents a back vowel articulated between [a] and [o], i.e., [ɒ]; this is suggested by pairs such as the following:

tåxan 'fig tree' and Udi *toˁxaˀn* 'id.';

țå 'side' and Udi *țoˁ-ġ-* 'id. (originally plural)', contained in the frequent postposition *țoˁgoˀl* 'at, near by' corresponding to Alb. *țåowgol* 'by the sides';

q̇å 'twenty' and Udi *q̇o* 'id.', also attested in the compounds *xo-q̇åom* 'hundredfold', lit. 'five-twenty-times', and *xo-q̇åaray-bån'i* 'centurion', lit. 'of-five-twenties-chief'.

In the combination with no. 50, <w>, no. 47 may have represented a digraph denoting a rounded high vowel /ü/, quite in accordance with the digraph <ow> which represents [u]; cp., e.g., the following pairs:

hüwk̇ 'heart' and Udi *uk̇/ü(ˁ)k̇* 'id.';

üwx̣ 'six' and Udi *uˁq* 'id.';

vüwġ 'seven' and Udi *vuˁgˀ* 'id.';

müwġ 'eight' and Udi *muˁġ* 'id.';

q̇üw(e) 'fear' and Udi *q̇iˀ/q̇əˁ* 'id.', etc.

Both vowels represented by nos. 25 and 47 may have had pharyngeal features as the Udi correspondences suggest. The same is true for the sound represented by character no. 14, which is likely to have been a pharyngeal consonant in its own right, corresponding to the pharyngealization of plain vowels in modern Udi; cf., e.g., the following correspondences:

ˁi 'ear' and Udi *i(ˁ)mux, üˁmux* 'id.' (originally a plural form);

ˁaxi 'far' and Udi *aˁxiˀl* 'id.';

vˁan 'you (pl.)' and Udi *vaˁn* 'id.';

bˁefi 'your (pl.)' and Udi *eˀfi* 'id.';

bˁeġ 'sun' and Udi *beˀġ* 'id.';

p̣ˁa 'two' and Udi *p̣aˁ* 'id.'; and perhaps

k̇ˁaban 'desert' and Udi *q̇aˁvaˀn/qavun* 'field'.

However, in the loanwords *xoˁak̇* 'heat' (~ Arm. *xoršak*, Georg. *xoršak̇-i* 'id.'), *vaˁamak̇* 'cerecloth, napkin' (~ Arm. *varšamak*, Georg. *varšamag-i* 'id.'), and *mowˁak̇* 'worker, labourer' (~ Georg. *mušak̇-i*, Arm.

mšak 'id.'), the same grapheme seems to denote a *š*-like sound rather than a pharyngeal,[21] thus matching the letter name, which appears as *Ša* (or, rather, *Šá*) in the alphabet list and which may be restored as either **ˤa or *Šˤa*.

No.	CA	IPA	Trl.	Num.
14	Ƅ	[ˤ]	ˤ	50

c) Palatal stops and continuants

As items no. 18, 36, and 22, the alphabet list contains three characters whose names seem to imply a doubling of letters well established elsewhere, viz. <d>, <t>, and <l>. There is good reason to assume that these "extra" characters represent palatal (or palatalized) variants of their respective "plain" partners and that a fourth pair consisting of <n> (no. 31) and no. 16, named *Ina* in the list, can be added to the set.[22]

No.	CA	IPA	Trl.	Num.	vs.	No.	CA	IPA	Trl.	Num.
18	Ƅ	[dʲ]	*d'*	90		4	ꝗ	[d]	*d*	4
36	Ⴭ	[tʲ']	*ṭ'*			45	ꞁ	[t']	*ṭ*	
22	Ⴕ	[lʲ]	*l'*			15	ꞁ	[l]	*l*	60
16	ⵜ	[nʲ]	*n'*	70		31	Ⴗ	[n]	*n*	

Cp. the following pairs:
for <d'>:

    ḳod' 'house' and Udi *ḳoǯ* 'id.';

    xod'i 'shadow' and Udi *xoǯi/xoži* 'id.';

    d'ed'er 'lip' and Udi *ǯeǯer* 'id.'; but also loanwords such as

    d'iṗ 'book, scripture' (< Old Persian *dipī-*);

    bod'var 'censer' ~ Arm. bowrvar, Old Georg. *bervar-* 'id.' (< Middle Iran. *bōδiβār*);

for <ṭ'>:

    aq̇aṭ'i 'naked' and Udi *aq̇ači* 'id.' (attested only in Schiefner's materials);[23]

for <l'>:

    l'aq̇ 'way, path' and Udi *yaq̇* 'id.', and

    madil' 'mercy, grace', obviously borrowed from Old Georgian *madl-i* 'id.' with secondary palatalization.

The palatal <n'> is often found in the adverb *ṗon'e* 'then', which corresponds to Udi *ṗoy* 'id.', and the conditional morpheme *-en'e-* corresponding to Udi *-iyi-* (*/-(i)gi-*), but also in the frequent nominal stem *marmin'-* 'body, flesh', which obviously reflects Armenian *marmin* 'id.'.

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[21] Cf. J. GIPPERT, An etymological trifle, in: W. SUNDERMANN – A. HINTZE – F. DE BLOIS (eds.), Exegisti monumenta. Festschrift in Honour of Nicholas Sims-Williams (*Iranica* 17). Wiesbaden 2009, 127–140.

[22] Cf. J. GIPPERT, Albano-Iranica, in: M. MACUCH – M. MAGGI – W. SUNDERMANN (eds.), Iranian Languages and Texts from Iran and Turan. Ronald E. Emmerick Memorial Volume. Wiesbaden 2007, 99–108 for a first account of the "palatal" series.

[23] A. SCHIEFNER, Versuch über die Sprache der Uden. *Mémoires de l'Académie Impériale des Sciences de St.-Pétersbourg*, VIIᵉ série, t. VI/8. St. Petersburg 1862, 74 ("aqačin, *nackt*").

d) Voiced sibilants

The alphabet list contains two characters whose names indicate voiced sibilants, viz. nos. 8 and 12. The assignment of the two characters to the two sibilants [ʒ] and [ʑ] as suggested by the Udi sound system is much less straightforward than that of their voiceless counterparts because of their scanty attestation.

No.	CA	IPA	Trl.	Num.
8	Ᵽ	[ʒ]	ž	8
12	⟋	[ʑ]	ź	30

Character no. 8 is only attested in a word's initial position, the forms of the 1st person plural pronoun 'we' (abs. erg. *žan*, dat.I. *ža* etc.) being the most frequent. This does not help very much with the determination of the sound it represents, as the Udi equivalent of the pronoun begins not with a sibilant but with *y-* (abs. erg. *yan*, dat.I *ya* etc.). The determination of the character as [ʒ] (transliterated *ž*) is thus solely based on the identification of the frequent abbreviation *ž͂d* denoting a 'crowd' of people or a 'synagogue', with Arm. *žoɫovowrd* 'id.'.

Character no. 12 is even less frequent than no. 8. In a word's initial position, it is attested in the verb *źiź-iġesown* 'to be shaken, moved, tossed' and the noun *źe* 'stone'; apart from these, it only occurs in *źowmarź*, an obscure *hapax legomenon* meaning 'neighbour'. The identification as [ʑ] (transliterated *ź*) is based on Udi *źe* 'stone' which is the exact equivalent of the Alb. word; a cognate of *źiź-* may be found in Udi *ži'q̇* 'shaking, moving'.

The remaining 12 characters all represent affricates. Judging by the letter names as noted in the alphabet list, this is also true for the three items nos. 28, 32, and 34, which are not attested at all in the palimpsest texts. In several cases, the assignment of the actual phonetic values must remain tentative due to the scantiness of reliable correspondences. The following itemisation is arranged according to the presumed phonetic values; only a few clear correspondences will be given.

e) Dental-alveolar affricates

No.	CA	IPA	Trl.	Num.
38	⟋	[dz]	ӡ	
19	℥	[ts']	c̣	100
49	ꝸ	[tsˤ]	c	

Examples:
ṗilinӡ 'bronze', cp. Arm. *pɫinj* and Old Georgian *(s)ṗilenӡ-i* 'id.';
c̣i 'name' and Udi *c̣i* 'id.'; *c̣ic̣iḳ* 'flower' and Udi *c̣ic̣iḳ* 'id.';
cam-pesown 'write' and Udi *cam-pesun* 'id.'; *ʿocḳesown* 'wash' and Udi *ocḳesun* 'id.'.

f) Alveolar-palatal affricates

No.	CA	IPA	Trl.	Num.
34	*ꝗ	[dʒ]	(ǯ)	
27	ꙃ	[tʃ']	č̣	
39	ꙅ	[tʃˤ]	č	

No. 34 is not attested in the palimpsests. For nos. 27 and 39 cp.

p̣ača 'reason' ~ Arm. *patčar̄* 'id.';
čaṭar 'temple' (with metathesis) ~ Arm. *tačar*, Georg. *ṭaʒar-i* 'id.';
ačam 'unleavened (bread)' and Udi *ačam* 'id.';
ič 'self' and Udi *ič* 'id.';
viči 'brother' and Udi *viči* 'id.';
čibowx̱ 'wife, woman' and Udi *čubux/čuhux* 'id.'.

g) Postalveolar affricates

No.	CA	IPA	Trl.	Num.
20	Ҍ	[dʒ]	ʒ́	200
10	Ⴑ	[tɕ']	ć	10
26	Ⴂ	[tɕ]	ć	

Just like modern Udi, Caucasian Albanian is likely to have possessed a series of postalveolar or, rather, retroflex spirants and affricates, the latter being represented by nos. 10, 20, and 26 in the alphabet list. Cp., e.g.

ʒ́owġ 'the Lord' (always abbreviated as *ʒ́~ġ*) and its compounds *ḳod'in-ʒ́owġ* 'householder, landlord' and *bixaʒ́owġ* (abbreviated *b~ġ*) 'God', lit. 'creating Lord', with their Udi equivalents *ḳon-ʒux* and *bixaʒux*;
ḳaći 'blind' and Udi *ḳaći* 'id.', and *bać* 'hundred' and Udi *bać* 'id.';
ća 'face' and Udi *ćo* 'id.'.

h) Palatalized affricates

The phonetic character of the fourth set of affricates remains obscure, given that two of the three characters (nos. 32 and 28) are not attested at all in the palimpsests and for the third, there is but one candidate with a possible equivalent in Udi. The assignment as "palatalized affricates" (in accordance with the palatalized variants of dental stops and continuants) thus remains doubtful.

No.	CA	IPA	Trl.	Num.
32	*Ⴋ	[dzʲ] ?	(ʒ')	
48	Ⴒ	[tsʲ']	ç'	
28	*Ⴡ	[tsʲ] ?	(c')	

The only word that can be used for the identification of no. 48 is *mowç'owr*, an adjective meaning both 'pure' and 'holy' (cp. Arm. *sowrb* and Georg. *çmida-* 'id.'), and its derivates. The most probable Udi equivalent of this frequently attested word is *mučur* 'clear, bright (sky)', which, however, has a plain alveolar-palatal affricate. Another possible cognate is Udi *aç'ar* 'clear, pure, transparent' which does contain a palatalized affricate as assumed here. The remaining CA words with <ç'> are either uncertain (*ḳowḳowç'* 'bird', cp. Udi *ḳoḳoç'* 'id.'), etymologically obscure (*biç'* 'garment, clothing'), or both (*binç'e* 'skull', in *binç'e-xown'* 'Golgotha', lit. 'skull-place').

THE ALPHABET ORDER

There can be no doubt that the Albanian alphabet as established now depends in its structure on the Armenian alphabet in quite the same way as the latter depends on the Greek. This is clearly indicated by the fact that the sequence of characters that have a counterpart in Armenian is basically the same, just as the sequence of Armenian letters that have equivalents in the Greek alphabet are arranged in the same order,

with but a few exceptions. This also implies that additional characters (exceeding the Greek inventory) were inserted at random within the given sequences in both the Armenian and the Albanian alphabets.

In this respect, the two alphabets differ considerably from the Old Georgian one as this has preserved the Greek arrangement intact to a much greater an extent,[24] including the position of *Digamma,* and added most extra characters at the end. This is also true for the numeric usage of the characters, which makes the peculiar relationship between the Georgian and Greek alphabets evident at once as the respective values are the same for all the Georgian characters with an exact counterpart in the latter, with the only exception of the very last character, *Hoe ~ Omega.* On the other hand, all three Caucasian alphabets agree with their common Greek source in rendering the [u] vowel by a digraph, <ow>, and by providing a letter corresponding to Greek Ēta with the phonetic value of a diphthong [ej] rather than a long [e:] – as a matter of fact, none of the three sound systems of Old Armenian, Old Georgian, and Caucasian Albanian (or Udi) possessed long or lengthened vowels as distinctive phonemic entities.

Greek			Old Georgian				Old Armenian				Caucasian Albanian			
name	char.	num.	name	trl.	char.	num.	name	trl.	char.	num.	name	trl.	char.	num.
alpha	A	1	*ani*	*a*	Ⲧ	1	*ayb*	*a*	Ա	1	*alt*	*a*	Ջ	1
beta	B	2	*bani*	*b*	Ⴁ	2	*ben*	*b*	Բ	2	**bet*	*b*	Ҕ	2
gamma	Γ	3	*gani*	*g*	Ⴂ	3	*gim*	*g*	Գ	3	**gim*	*g*	Ҫ	3
delta	Δ	4	*doni*	*d*	Ⴃ	4	*da*	*d*	Դ	4	**daṭ*	*d*	Ҷ	4
epsilon	E	5	*eni*	*e*	Ⴄ	5	*eč*	*e*	Ե	5	**eb*	*e*	Ⳑ	5
digamma	F	6	*vini*	*v*	Ⴅ	6								
zēta	Z	7	*zeni*	*z*	Ⴆ	7	*za*	*z*	Զ	6	*zarl*	*z*	Ꙁ	6
ēta	H	8	*hē*	*ē*	Ⴇ	8	*ē*	*ē*	Է	7	**ēn*	*ē*	Ⳃ	7
							etʽ	*ə*	Ը	8				
											žil	*ž*	Ҏ	8
thēta	Θ	9	*tani*	*t*	Ⴈ	9	*tʽo*	*tʽ*	Թ	9	*tas*	*t*	Ⳝ	9
											*ća	*ć*	Ⳗ	10
											yowd	*y*	Ⳡ	20
							žē	*ž*	Ժ	10	**źa*	*ź*	ⳤ	30
iota	I	10	*ini*	*i*	Ⴌ	10	*ini*	*i*	Ի	20	**iˤrb*	*i*	Ⴁ	40
											*(š)ˤa	*ˤ*	Ҍ	50
							liwn	*l*	Լ	30	*lan*	*l*	Ⳛ	60
											*inʼa	*nʼ*	Ⳙ	70
							xē	*x*	Խ	40	**xˤēn*	*x*	Ⳛ	80
											*dʼan	*dʼ*	Ⳟ	90
							ca	*c*	Ծ	50	**çar*	*ç*	Ⳙ	100
											*ʒox	*ʒ́*	Ꙇ	200
kappa	K	20	*ḳani*	*ḳ*	Ⴉ	20	*ken*	*k*	Կ	60	**ḳˤar*	*ḳ*	Σ	300
											lʼiṭ	*lʼ*	Ⲧ	400
							ho	*h*	ⴽ	70	*hēṭ*	*h*	Ⳉ	500
											*qay	*x̣*	Ⴉ	600
							ja	*j*	Ձ	80				
											*år	*å*	Ⴓ	700
lambda	Λ	30	*lani*	*l*	Ⴊ	30	*ład*	*ł*	Ղ	90				
											*ćoy	*ć*	Ⴍ	800
							čē	*č*	Ճ	100	*či*	*č*	Ⳅ	900
											*cʼay	**cʼ*	Ⳓ	1000

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[24] In its main points, this conclusion agrees with A. Šaniʒe's view as published in 1957 (IDEM, Porjadok [cf. n. 7] 42).

Greek			Old Georgian				Old Armenian				Caucasian Albanian			
name	**char.**	**num.**	**name**	**trl.**	**char.**	**num.**	**name**	**trl.**	**char.**	**num.**	**name**	**trl.**	**char.**	**num.**
my	M	40	*mani*	m	Ⴋ	40	*men*	m	Մ	200	*maq̇*	m		2000
											q̇ar	q̇		3000
							yi	y	Յ	300				
ny	N	50	*nari*	n	Ⴌ	50	*nu*	n	Ն	400	*nuc*	n		4000
ksi	Ξ	60												
			ye	y	Ɔ	60								
											ʒ'ay	*ʒ'*		5000
							ša	š	Շ	500	*šak*	š		6000
											žayn	*ž*		7000
omikron	O	70	*oni*	o	Ⴍ	70	*vo*	o	Ո	600	*on*	o		8000
											ṭ'ay	ṭ'		9000
											fam	f		10000
											ʒay	ʒ		20000
							č'a	č'	Ճ	700	*čaṭ*	č		30000
pi	Π	80	*p̣ari*	p̣	Ⴎ	80	*pē*	p	Պ	800	*p̣en*	p̣		40000
qoppa	Ϙ	90												
			žani	ž	Ⴏ	90								
							ǰē	ǰ	Ձ	900				
											ġēs	ġ		50000
rho	Ρ	100	*rae*	r	Ⴐ	100	*r̄a*	r̄	Ռ	1000	*raṭ*	r		60000
sigma	Σ	200	*sani*	s	Ⴑ	200	*sē*	s	Ս	2000	*sēḳ*	s		70000
							vew	v	Վ	3000	*vēz*	v		80000
tau	Τ	300	*ṭani*	ṭ	Ⴒ	300	*tiwn*	t	Տ	4000	*ṭüwr*	ṭ		90000
											śoy	ś		100000
							rē	r	Ր	5000				
											ün	ü		200000
											ç'aw	ç'		300000
							c'o	c'	Ց	6000	*cayn*	c		400000
ypsilon	Υ	400	*wie*	w	Ⴣ	400	*yiwn*	w	Ւ	7000	*yayd*	w		500000
phi	Φ	500	*pari*	p	Ⴔ	500	*p'iwr*	p'	Փ	8000	*püwr*	p		600000
khi	Χ	600	*kani*	k	Ⴉ	600	*k'ē*	k'	Ք	9000	*küw*	k		700000
psi	Ψ	700												
			ġani	ġ	Ⴖ	700								
			q̇ari	q̇	Ⴕ	800								
			šini	š	Ⴘ	900								
			čini	č	Ⴙ	1000								
			cani	c	Ⴚ	2000								
			ʒili	ʒ	Ⴛ	3000								
			c̣ili	c̣	Ⴜ	4000								
			čari	č	Ⴝ	5000								
			xani	x	Ⴞ	6000								
			qari	q	Ⴕ	7000								
			žani	ž	Ⴟ	8000								
			hae	h	Ⴠ	9000								
omega	Ω	800	*hoe*	o	Ⴡ	10000	*ō*	ō	Ո	10000				
(sampi	ϡ	900)												
							(fē	f	Ֆ)					

Jost Gippert

In the table above, the common (Greek) skeleton of the four alphabets is indicated by the dark-grey shading of the respective rows, while matches among the extra characters of the Armenian and the Albanian alphabets are marked by light-grey shading. In but one case, the match is not exact with respect to the phonetics of the represented sound, viz. in Arm. *ž* vs. Alb. *ź* (no. 10); this may be due to the fact that Alb. *ž* was previously put in order (as no. 8) at the place of Arm. *ə* which had no counterpart in Albanian. Nevertheless, the "Armenian" basis of the alphabet seems clear enough, thus confirming the historical tradition which attributes the invention of the Albanian script to Mesrop Maštoc.[26]

[26] Cf. the edition by M. ABEŁYAN, Koryun. Varkʿ Maštocʿi. Erevan 1941 / repr. Delmar, N.Y. 1985, 68–72 and the English translation by B. NOREHAD, Koriun, The Life of Mashtots. Erevan 1972 / repr. ib., 40–41.