

Genetic and Cultural Linguistic Links between Burushaski and the Caucasian Languages and Basque¹

Abstract: The Burushaski language of northeastern Pakistan has long eluded a generally agreed classification among the language families of the world. Recently the careful application of multilateral comparison has led to the hypothesis that Burushaski is probably most closely related to the (North) Caucasian languages and Basque (confirming earlier suggestions by Berger, Bleichsteiner, Bouda, and others). This hypothesis is supported by lexical evidence (cognates of basic vocabulary) as well as by morphological similarities, and further confirmed by recurrent phonological correspondences. Cultural vocabulary shared by the same languages indicates a dispersal of the proposed proto-language, variously termed Euskaro-Caucasian or Macro-Caucasian, at a time when domestication of sheep and goats and cultivation of grain crops were well in place.

This paper is divided into two major parts: (a) the presentation of some of the evidence for the genetic relationship of Burushaski to the Caucasian languages and Basque, and (b) the presentation of some of the cultural vocabulary shared by the same languages. In the first section, genetic evidence is divided into lexical cognates, morphological evidence, and phonology.

Lexical evidence: Burushaski-Caucasian-Basque comparisons:

In each etymological entry, the Burushaski word or words are listed first, with dialectal designations (H = Hunza, N = Nager, Y = Yasin) where appropriate. Next, proposed Caucasian cognates, if any, are cited, then Basque cognates, if any, and finally there may be notes, following the symbol §.

Body parts:

bácín (H,N) ‘shank; (animal’s) hind leg above the hock’

~ *Cauc*: Avar *púrc:i* ‘ham’, Tabasaran *bac* ‘paw’, etc. < PEC **b[ə]cV* (NCED 291)

bumbáalten (Y) ‘ankle’ < **bum(b)la-lten* (old compound of ? + *-lten* ‘bone’)

~ *Cauc*: PEC **bǎmǎV* ‘hoof, foot’ (> Tsez *bula* ‘hoof’, etc.: NCED 307) + PEC **ǎ’wVn?V* (see the entry for *ten* ‘bone’, below)

bur (H,N,Y) ‘(single) hair’, *-l-pur* (H) ~ *-r-pur* (N) ~ *-mú-r-puli-añ* (Y) ‘eyelid’ (where *-l-* ~ *-r-* = ‘eye’), *-ś-pur-añ* (H) ~ *-ş-pur-añ* (N) ~ *-ş-puri-añ* (Y) ‘mane (of animals)’ (where *-ś-* ~ *-ş-* = ‘neck’)

~ Basque *buru* ‘head’, *be-p(h)uru* ‘eyebrow’ (*be(t)-* = *begi* ‘eye’)

¹ Based on a paper given at the 3rd Harvard Round Table on Ethnogenesis of South and Central Asia Harvard University, May 12-14, 2001.

§ Bur. and Basque compared by Berger (1956, p. 9, note 16).

galgi (H,N,Y) ‘wing, fin’

~ Cauc: Lak *qa* ‘wing’, Lezgi *γil* ‘hand’, etc. < PEC **q̄ɪlʔi* (NCED 895)

~ Basque *hegal* ‘wing’

§ Bur. and Basque compared by Berger (1956: 7).

-ġáan (H,N) ~ *-ġán* (Y) ‘heel’

~ Cauc: Avar *eγé* ‘heel’, Lak *niq:a* ‘heel’, etc. < PEC **ʔĩngwǂ* (NCED 248)

~ Basque *oin* ‘foot’ (*huñ* in the Zuberoan dialect)

§ Bur. and Basque compared by Berger (1956: 10).

-hútes (Y) ~ *-útis*, *-út* (H,N) ‘foot’

~ Cauc: Avar *ħet'é / ħet* ‘foot’, Chechen *t'a* ‘front leg (of animal)’, etc. < PEC

**t'wĩfV* (~ **fĩwĩt'V*) (NCED 1007)

jaláalimiñ ‘long hair (of people)’

~ Cauc: Karata *žale* ‘mane’, Lak *zulū* ‘nap, pile’, etc. < PEC **žāłhi* (NCED 1101)

-kin (H,N) ~ *-ken* (Y) ‘liver’

~ Cauc: Chamalal *k'ũũ* ‘liver’, Andi *k':unu* ‘kidney’, etc. < PEC **k'unHV* (NCED 728)

~ Basque ? *kun-* / *gun-* in the dialectal words *kuntzurrun* ~ *guntzurrun* ‘kidney’ (Bizkaia, Gipuzkoa), elsewhere *giltzurin*, etc. In all cases, an old compound with obscure components.

kúur ‘finger-joint, toe-joint’; *kurón* ‘bone’

~ Cauc: Chechen *k'uram* ‘bone (for playing dice)’, Lezgi *k'ur* ‘hoof, leg (of animal)’, etc. < PEC **k'wĩrV* (NCED 736)

-mélç (H,N,Y) ‘jaw, jawbone’

~ Cauc: Tabasaran *melz* ‘tongue’, Khinalug *mic* ‘tongue’, etc. < PNC **mēlc'ĩ* (NCED 802)

~ Basque *mihi* (> *mii*, *mi*) ‘tongue’

§ For phonology, see Bengtson (1999).

-miş (H,N) ~ *-meş* (Y) ‘finger, toe’

~ Cauc: Kryts *mič'*-ek ‘hoof, nail, claw’, Lak *x:i-mič'* ‘hoof’, etc. < PEC **mič'V* (NCED 819)

-móqiş (H,N) ‘cheek’ ~ *-móqiş* (Y) ‘face’, *-móqoŧ* ‘cheek’

~ Basque *moko* ~ *mokho* ‘beak, forehead’, *mok(h)oz-mok(h)o* ‘face-to-face’

-múltur (H,N) ‘nostril’

~ Basque *mutur* ~ *muthur* ‘snout, muzzle’

§ Bur. and Basque compared by Berger (1959, p. 33, note 57). Caucasian forms such as Batsbi *marłō* ‘nose’, Bezhta *moł’o* ‘beak’ could be related (cf. NCED 1041).

-mús (H,N,Y) ‘nose, snot’

~ Cauc: Chechen *marš* ‘snot’, Andi *maču* ‘snot’, etc. < PEC **mHǎřwV* (NCED 816)

~ Basque (Gipuzkoa) *musu* ‘nose’ (in other dialects: ‘snout, face, lip, kiss’, etc.)

-pat (H) ~ *-phat* (N) ~ *-p(h)at* (Y) ‘side, flank’

~ Cauc: Lezgi *p:ad* ‘side’, etc. < PEC **bVdV* (cf. Urartian *bedə* ‘side; (postpos.) on the part of, by’; NCED 315)

pholǵó (Y) ~ *phulǵúuỳ* (H) ~ *phurgúuỳ* (N) ‘feather’

~ Cauc: Lak *p’ihulli* ‘feather’, Dargwa (Akushi) *pǎhǎla* ‘feather’, etc. < PNC

**p’VhVhV* (NCED 879)

~ Basque *bilho* ‘hair, mane’

-qat (H) ~ *-qhat* (N) ~ *-qet-arañ* (Y) ‘armpit’

~ Cauc: Avar me-*héd* ‘brisket (chest of animal)’, Bezhta *ǵade* ‘brisket’ < PEC

**qVdV* (NCED 897)

-qhásin (H,N) ‘hind end, arse’ ~ *-xásan* (Y) ‘female sex organ’

~ Cauc: Udi *qoš* ‘behind’, etc. < PEC **-VqV* (? NCED 1026)

§ Comparison by Bouda (1954, p. 229, no. 28).

-qhát (H,N) ~ *-xát*, *-xat* (Y) ‘mouth’

~ Cauc: Lak *q’it* ‘Adam’s apple, beak’, etc. < PEC **qwit’i* (NCED 905)

-qhúrpat (H,N) ~ *-xórpət* (Y) ‘lung’

~ Cauc: Tsez *χot’ori*, Archi *χurt:ur-t:i*, etc. ‘lung’ < PEC **qwǎlθV(rV̄)* (NCED 901)

~ Basque *hauspo* (~ *haspo* ~ *hausko*) ‘bellows’ (‘lung’ in the Bizkaian dialect)

§ Bur. and Basque compared by Berger (1959: 21).

-sán (H,N,Y) ‘spleen’

~ Cauc: Tindi *s:imi* ‘gall (liver bile); anger’, Archi *s:am* ‘gall’, etc. < PNC

**cǔwǎjmě* (NCED 329)

~ Basque *behazun* (**be-ha-zun*) ‘bile’

-sú (Y) ~ *-súi* (H,N) ‘navel, umbilical cord’

Cauc: Dargwa (Chirag) *zu* ‘navel’, Tindi *c:ũũ* ‘navel’, etc. < PEC *ʒõnʔũ (NCED 1096)

-*súsun* (H,N) ~ -*sésen* (Y) ‘elbow’

~ Cauc: Udi *sun* ‘elbow’, Lak *s:an* ‘foreleg, paw, pad’, etc. < PEC *ʒĩnõ (NCED 963)

tal (H) ‘stomach, belly’

~ Cauc: Avar *t’ul* ‘liver’, Lak *t:ilik* ‘liver’, etc. < PEC **Hl*ä λ ’*V* (NCED 586)

§ Note recurrent correspondences of Burushaski *t-* with Caucasian lateral affricates (λ , λ , λ ’) and Basque *l-*, see the next four entries, and the Phonology section of this paper.

táno (H,N) ‘colon, rectum’ (probably related to *táno*, *tanéelo* ‘illegitimate child, of low birth’)

~ Cauc: Avar *t’ínu* ‘bottom’, Khinalug *k’an-ik* ‘under’, etc. < PNC **H* λ ’õnũ (NCED 590)

tar-íŋ ‘*skin’ > ‘bag made from animal hide (for containing fluids, or for rafts)’

~ Cauc: Avar λ :*er* ‘color’ (< *‘skin’), Dargwa *guli* ‘skin, hide, sheepskin’, etc. < PNC * λ õli ‘*skin’ (NCED 789)

~ Basque *larru* ‘skin, hide, leather’

§ Bur. and Basque compared by Berger (1959, p. 26, note 34).

ten (Y) ‘bone’ ~ -*ltín*, *tin* (H,N) ‘bone’

~ Cauc: Avar λ :*an* ‘groin’, Agul *k:un* ‘ankle’, etc. < PEC * λ ’wVnʔV (NCED 785)

tur (Y) ~ -*ltúr*, *tur* (H,N) ‘horn’

~ Cauc: Avar λ :*ar*, Chechen *kur* ‘horn’, etc. < PEC * λ wĩrV (NCED 771)

~ Basque *adar* ‘horn’ (< **a-rdar*)

§ Bur. and Basque compared by Berger (1959, p. 34, note 57).

-*úl* (H,N,Y) ‘belly, abdomen, bowels’

~ Cauc: Tindi *b-e λ :u* ‘stomach, rennet, abomasum’ (*b-* = class prefix), Dargwa (Akushi) -*arg* ‘stomach, inside’, etc. < PEC **ĩ*ra λ ’*V* (NCED 670)

~ Basque *urdail* ‘stomach’, (in Bizkaian also ‘rennet; womb’)

-*yáldir* (H) ~ -*yáldin* (N) ‘the part of the ribs under the armpit; middle part of the breast’

~ Cauc: Akhwakh *ra λ :iča* ‘belt, girdle’, Hunzib *ɔ λ e* ‘belt’, etc. < PEC **j*ě λ ’wV (NCED 678)

§ For the regular correspondence of Burushaski *-lt-* (*-ld-*) to Caucasian **- λ -*

(*-ǰ'-), see the Phonology section of this paper. For semantics, cf. Greek ζώνη [zónē] ‘waist, loins; belt, girdle’.

Nature:

bañ (N) ~ *bañgí* ‘resin (of trees)’

~ Cauc: Chechen *baga* ‘pine tree’, Lezgi *muk*’-rag ‘fir tree’, etc. < PEC **bħĩnk*’wV (NCED 296)

bar (H,N,Y) ‘small valley, ravine, gorge’

~ Basque *ibar* ‘valley’

§ Bur. and Basque compared by Berger (1956: 7; 1959: p. 28, note 39).

bun, (pl.) *bundó* (H,N) ‘mountain pasture, mountain grove; boulder; wild, mountain-’ ~

bun, (pl.) *bundó* ~ *bunjó* (Y) ‘boulder’

~ Basque *mendi* ‘mountain’

§ Bur. and Basque compared by Berger (1959, p. 28, note 41).

díltar ‘buttermilk’

~ Cauc: Avar *rax* ‘milk’, Hunzib *reł* ‘butter’, etc. < PNC **rħǰǰwǂ* (NCED 949)

§ For the regular correspondence of Burushaski *-lt-* (*-ld-*) to Caucasian *-ǰ-

(*-ǰ'-), see the Phonology section of this paper

duldúm ‘rising cloud (of dust, smoke, etc.)’ < *dul* + *dúm* ?

~ Cauc: Archi *dił^w* ‘cloud’, Lak *t:urlu* ‘cloud’, etc. < PEC **dił^w*V (NCED 400)

ge ~ *gye* (H,N,Y) ‘snow’

~ Cauc: Khinalug *q:i* ‘cold’ (n.), Lak *-ǰ-q:i-* ‘to grow cold, catch cold’, etc. <

PNC

*-*HĩGA* (NCED 568)

gon (H,N,Y) ‘dawn’; cf. *gunó* (H,N,Y) ‘day’

~ Cauc: Lak *q’ini* ‘day’, Avar *q’o* ‘day’, etc. < PEC **Hwĩq*’ĩ-(nV) (NCED 622)

~ Basque *egun* (*egu-*, *egur-*) ‘day’

§ Burushaski and Basque compared by Berger (1956: 16).

gónderes ~ *gondoles* (Y) ‘water, that runs over many stones’

~ Cauc: Botlikh *ǰadaru* ‘stream, brook’, Lak *ǰatara* ‘mountain stream’, etc. < PEC

**ǰHwadVrV* (NCED 478)

§ Note: Burushaski *ǰ* and Caucasian *ǰ* are the same sound (voiced uvular fricative).

haménç (Y) ‘curds, cheese’

~ Cauc: Chechen *morza* ‘whey, buttermilk’, Lezgi *č'em* ‘butter’, Khinalug *mic* ‘butter, oil’, etc. < PEC **Hžěm̃i* (NCED 624)

hun (H,N) ‘wood, timber, beam, hewn trunk’, (Y) ‘wood, firewood’

~ Cauc: Chechen *ħun* ‘forest’, Khwarshi *hun* ‘mountain’, etc. < PNC **fānV* (NCED 425)

~ Basque: *oihan* ‘forest, woods’

mal (H,N,Y) ‘field’

~ Cauc: Archi *mał:i* ‘winter pasture’, Avar *márxi* ‘farmstead’, etc. < PNC **malxwē* (NCED 795)

phétiñ (H,N,Y) ‘ashes’

~ Cauc: Dargwa *pat:a* ‘excrement’, Akhwakh *beda* ‘dirt’, etc. < PEC **pidV* (NCED 871)

phunc (H,N,Y) ‘dew’

~ Cauc: Lak *pic* ‘dew, sweat’, Dargwa *penc* ‘resin’, Ubykh *bzə* ‘water’, etc. < PNC **pñc'wA* (NCED 871)

*-*šare* ~ *-*šere* ‘*night’, in: *gó(i)n-šare* (H,N) ~ *gón-šere* (Y) ‘the whole night, all the night through’ (*gon* = ‘dawn’)

~ Cauc: Avar *sordó* ‘night’, Chechen *süjrē* ‘evening’, etc. < PNC **šwErV* (NCED 977)

ši (H,N) ‘fireplace, hearth’; cf. *sútum* (Y) id.

~ Cauc: Ingush *c'i*, Lak *c'u*, etc. ‘fire’ < PNC **c'ǎǎ* ‘fire’ (NCED 354)

~ Basque *su* ‘fire’

§ Bur. and Basque compared by Berger (1956: 17).

taγ (Y) ‘branch, shoot’

~ Cauc: Hinukh *ǎ'iχ* ‘bough’, Lak *k'urχ* ‘sprout’, etc. < PEC **ǎ'ōrχwV* (NCED 780)

tap (H,N,Y) ‘leaf’; -*ltápu-* (H,N) ~ -*ltápi-* (Y) ‘to wither’

~ Cauc: Lak *č'ap'i*, Adyge *thāp* ‘leaf’, etc. < PNC **ǎ'ǎpi* (NCED 774)

tápi (H,N) ‘stone terrace’

~ Cauc: Avar *ǎ'eb* ‘stone’, etc. < PEC **ǎ'ěpV̄* (NCED 777)

~ Basque (Zuberoan) *lape* ‘shelter under the eaves of a shed’

ter (H,N,Y) ‘high pasture, summer mountain pasture’

~ Basque *larre* ‘grassland, pasture’

§ Bur. and Basque compared by Berger (1959, p. 26, note 34).

tik (H,N,Y) ‘earth, ground; rust’
~ Basque *leku* ~ *lekhu* ‘place’

tiš (H,N,Y) ‘wind’
~ Cauc: Tsez *łaci* ‘wind’, Akhwakh *łãc’o* ‘voice, shout’, etc. < PEC *ł[a]rč’V
(NCED 767)

tumáy (H,N) ‘nutshell, shell of fruitstone’ ~ *tumá* (Y) ‘hard shell (of nut, egg), fruit
stone’
~ Cauc: Chechen *t’um* ‘marrow; kernel (of a fruit, nut)’, Abkhaz *a-t’amá* ‘peach’,
etc. < PNC *t’ũmhV (NCED 1004)

ther (H,Y) ~ *ther-k* (N) ‘dirt’
~ Cauc: Akhwakh *tereti* ‘ashes, dust’, Bezhta *tär* ‘sheep’s dung’, etc. < PEC
*türV (NCED 993)

yáltar (H,N) ‘upper leafy branches’ ~ *gáltár* (H,N,Y) ‘small branch, twig’
~ Cauc: Avar *łarł’él* ‘branch, bough’, etc. < PEC *fálł’VłV (NCED 508)
§ For the regular correspondence of Burushaski *-lt-* to Caucasian *ł- (*-ł’-), see
the Phonology section of this paper.

Wild animals:

balás (H) ~ *balác* (N) ‘(larger) bird’
~ Cauc: Avar *łálo* ‘jackdaw’, Adyge *q:wála-ž* ‘crow’, etc. < PNC *GHwVłV
(NCED 460; *L* denotes a voiced lateral fricative)
~ Basque *bele* ~ *bela* ~ *belatzaga*, etc. ‘crow, raven’; *belatz* ‘sparrow hawk’
§ Assumes *Gw > *b* in Burushaski and Basque.

čargé (Y) ‘flying squirrel’
~ Cauc: Chechen *šat’q’a* ‘weasel’, Andi *sarł’u* ‘weasel’, Adyge *cəłwa* ‘mouse’,
etc. < PNC *čārgwłł (NCED 322)
~ Basque *sagu* ‘mouse’; *sagu-zahar* ‘bat’ (‘mouse-old’); combinatory form *sat-*,
as in *sator* ‘mole’ (‘mouse-dog?’), *satitsu* ‘shrew’ (‘mouse-blind’)

čhin (H,N) ~ *čen*(Y) (‘small) bird’
~ Cauc: Abaza *c’i-s* ‘small bird, sparrow’, Avar *łinč’*: ‘bird’, Archi *noc’* (‘small
bird, sparrow’, etc. < PNC *fnič’(w)ł (NCED 525)
§ The comparison assumes metathesis (the Avar form is virtually the reverse of
the Bur. forms).

ğúrqun (H) ~ *ğúrquć* (N) ~ *ğórkun* (Y) ‘frog’

~ Cauc: Tindi *q'orq'u*, Khinalug *q'urq'or*, Kabardian *ħandər-q:wāq:wa*, etc.
'frog' < PNC **q'wVrVq'V̄* (NCED 942)

har (H,N) 'corn worm'

~ Cauc: Avar *ħapára*, Tsakhur *ǰbra-wuč'e* 'worm' < PEC **ħabarV* (NCED 508)

~ Basque *har* 'worm'

§ Bur. and Basque compared by Berger (1956: 7).

haúlal (Y) ~ *hoólalas* (H,N) 'butterfly, moth'

~ Basque *euli* 'fly' (insect)

§ Bur. and Basque compared by Berger (1956: 16), citing Zarubin's transcription of Yasin *ahúlal*. There is also an isolated Caucasian word: Archi *hiliku* 'fly'.

khin (H,N) ~ *khen* (Y) 'flea'

~ Cauc: Chechen *ǰēnig* 'louse', Dargwa *q'i* 'nit', etc. < PEC **q'ān?V* (NCED 911)

~ Basque *akain* 'tick'

khíso (H,N) ~ *khiśu* (Y) 'mosquito'

~ Basque *kokoso* ~ *kukuso* 'flea'

pherán (Y) 'moth' ~ *phirán* (H,N) 'spider'

~ Cauc: Chechen *polla* 'butterfly', Andi *pera* 'bee', etc. < PEC **pörV* (NCED 875)

~ Basque *pinpirin* ~ *pinpilin* 'butterfly'

phin (H,N) ~ *phen* (Y) 'fly' (insect)

~ Cauc: Avar *púq:na* 'drone', Dargwa (Akushi) *mirqi* 'bee', etc. < PEC **pānq̄wV* (NCED 868)

qaríuúyo (H) ~ *ǰaríuúyo* (N) 'heron'

~ Cauc: Adyge *q:araw* 'crane', Dargwa (Akushi) *q'anq'* 'heron, bustard', etc. < PNC **q'ə̀rə̀ə̀q'wV* (NCED 914)

tal (H,N,Y) 'dove'

~ Cauc: Avar *ǰ':iǰ':i* 'a kind of songbird', Budukh *kakıl* 'partridge', etc. < PEC **ǰ'eǰ'e* (NCED 776)

§ Note recurrent correspondences of Burushaski *t-* with Caucasian lateral affricates (*λ, ǰ, ǰ'*): see Phonology section of this paper.

tur-ćún (Y) ~ *tur-śún* (H,N) 'marmot' (old compound of *tur-* + ?)

~ Cauc: Ingush *ler-g* 'hare', Andi *ǰ':an-k'ala*, Ubykh *La* 'hare', etc. < PNC **ǰ'ǰrV* (NCED 788)

§ Marmot and hare are both rodents. See Phonology section for initial correspondence.

Human relations:

-*čo* (N,H) ~ -*ču* (Y) ‘brother (of a man), sister (of a woman); husband of a man’s sister’
~ Cauc: Chechen *w-aša* ‘brother’, *j-iša* ‘sister’, Agul *ču* ‘brother’, *či* ‘sister’,
Aadyge *šə* ‘brother’, etc. < PNC *-*č̣i* (NCED 669)
~ Basque *ahizpa* (*a-hiz-pa*) ‘sister (of a woman)’

ġul (H,N) ‘grudge, enmity, hatred’
~ Cauc: Avar *ɣ^wel* ‘gossip, rumor; abuse’, Khinalug *qol* ‘offence’, etc. < PEC
**ǵwāfħo* (NCED 465)

hir (H,N,Y) ‘man; male (of animals)’
~ Cauc: Chechen *ēra* ‘ungelt’, Akhwakh *b-eł:o* ‘male’, etc. < PEC **ʔiɾɿwV*
(NCED 210)
~ Basque *ar* (*arr-*) ‘male’

-*is* (Y) ‘child; (animal’s) young’ ~ -*sk* (H,N) ‘(animal’s) young; (jokingly) human child’
~ Cauc: Avar *w-as* ‘son’, *j-as* ‘daughter’, Bezhta *ožo* ‘son, boy’, etc. < PNC *-
šwE (NCED 671)

jaám (H,N) ~ *jâm* (Y) ‘(distant) kinsman’
~ Cauc: Chechen *zamō* ‘best man’, Lak *mač:a* ‘kinsman’, Rutul *q’u-žäm*
‘brother-in-law’, etc. < PEC **žāmV* / **măžV* (NCED 1101)
~ Basque *seme* ‘son’; cf. *senhar* ‘husband’
§ cf. Kartvelian: Megrelian *žima*, Georgian *zma* ‘brother’ (< Cauc?).

sis (H,N) ~ *ses* ‘persons, people’
~ Cauc: Ubykh *čáča* ‘persons, people’, Avar *či* ‘man’, etc. < PNC **čwijo* (NCED
336)

Descriptives:

babárum (*babár-um*) (Y) ‘hot, pungent’ (of food), (H,N) ‘pungent (taste); burning (pain);
hot-tempered, irascible (person)’
~ Cauc: PWC **bla/ə* ‘to burn’ (Chirikba 1996: p. 393); Tsez *boboru*, Khwarshi
bobolu ‘hot’
~ Basque *bero* ‘hot’
§ Bur. and Basque compared by Berger (1959: 30).

ġaqáy-um (H,N) ~ *qaqám* (Y) ‘bitter; unsweetened; sour’

~ Cauc: Chechen *q'äħa* 'bitter', Ubykh *q'aq'ə* 'sweet', etc. < PNC **q'ěfiV*
 (NCED 912)
 ~ Basque *karats* 'bitter; foul-smelling'
 § Bur. and Basque compared by Berger (1956: 10).

hultás (Y) 'barefoot'
 ~ Basque *orthuts* 'barefoot'
 § Compared by Berger (1959, p. 27, note 35).

şuqúrum (*şuq-úr-um*) (H,N) ~ *işqórum* (*işq-ór-um*) 'sour, bitter'
 ~ Cauc: Chamalal *s'ik'u-b* 'sour', Archi *c'eg^w-du* 'rank, bitter', etc. < PEC
**ċ'āk'wV* (NCED 356)

tharén-um (H,N) 'narrow (of clothes)'
 ~ Cauc: Avar *t'eréna-b*, Khinalug *k'ir* 'thin', etc. < PNC **-iǰ'ǰiV* (NCED 639)
 ~ Basque *lirain* 'slender'

Morphological evidence: Pronouns

Pronouns: Both Burushaski and the reconstructed Proto-(North) Caucasian have *suppletive* pronoun stems in the first and second person singular. According to Nikolayev and Starostin (1994, pp. 402, 483-84, 855, 1014-15, 1084-85), the original Proto-Caucasian paradigms were very complicated, and difficult to reconstruct with much certainty. For the present purpose, let us compare Hunza Burushaski (Berger 1998, vol. I, p. 80) with two East Caucasian languages, Khinalug and Tsakhur (and PEC):

	direct:	genitive:	dative:
1 st person singular ('I – me'):			
Burushaski	<i>je, já</i>	<i>áa</i>	<i>áar</i>
Khinalug	<i>zǐ</i> (nom.) <i>jǎ</i> (erg.)	<i>i, e</i>	<i>as</i>
Tsakhur	<i>zu</i>	<i>jiz-in</i>	<i>za-</i>
(PEC)	<i>*zō(-n)</i>	<i>*ʔiz(V)</i>	<i>*ʔez(V)</i> (erg.)
2 nd person singular (thou –thee):			
Burushaski	<i>un</i>	<i>góo</i>	<i>góor</i>
Khinalug	<i>wǐ</i> (nom.) <i>wa</i> (erg.)	<i>wi</i>	<i>oχ</i>
Tsakhur	<i>wu ~ ʔu</i>	<i>j-ǐʔ-</i>	<i>wa-</i>
(PEC)	<i>*uō(-n)</i> ~ <i>*ʔwV̄</i>		<i>*ʔeuV/*ʔiuV</i> <i>*ʔōʔwV</i> (erg.)

Clearly, a great deal of rearrangement has taken place, in all of these languages, since the original paradigms of thousands of years ago. Note also that the Hunza word for 'thou'

(direct), *un*, is identical with those of the East Caucasian languages Archi and Udi (*un* ‘thou’; cf. Lezgi and Agul *wun* ‘thou’). Interestingly, another East Caucasian language, Dargwa (Akushi and Urakhi dialects) has rearranged the first and second person paradigms to coincide with those of Basque:

Dargwa (Akushi, Urakhi)	<i>nu</i> ‘I’ :	<i>ħu</i> ‘thou’
Basque	<i>ni</i>	<i>hi</i>

Here the *nu/ni* stem is preserved (in Caucasian) only in Dargwa and Lak, while the *ħu/hi* ‘thou’ stem is presumed cognate with Burushaski *góo*, Tsakhur *γu*, etc.

Phonological Correspondences:

Correspondences of stops: In general, Burushaski unaspirated *p*, *t*, *k*, *q* correspond to Proto-Caucasian (glottalized) **pʰ*, **tʰ*, **kʰ*, **qʰ*, respectively; and Burushaski aspirated *ph*, *th*, *kh*, *qh* correspond to Proto-Caucasian (aspirated) **p*, **t*, **k*, **q*, respectively. See the following examples from the above comparisons:

-kin (H,N) ~ *-ken* (Y) ‘liver’ ~ Cauc: Chamalal *kʰũũ* ‘liver’, etc. < PEC **kʰunHV*

kúur ‘finger-joint, toe-joint’; *kurón* ‘bone’ ~ Cauc: Chechen *kʰuram* ‘bone (for playing dice)’, etc. < PEC **kʰwĩrV*

khor (H,N) ‘large wicker basket’ ~ Cauc: Akhwakh *koro* ‘trough, gutter’, etc. < PEC **kʰwərV*

pherán (Y) ‘moth’ ~ *phirán* (H,N) ‘spider’ ~ Cauc: Andi *pera* ‘bee’, etc. < PEC **põrV*

phétin (H,N,Y) ‘ashes’ ~ Cauc: Akhwakh *beda* ‘dirt’, etc. < PEC **pidV*

phin (H,N) ~ *phen* (Y) ‘fly’ (insect) ~ Cauc: Avar *púq:na* ‘drone’, etc. < PEC **pänqʷV*

phunc (H,N,Y) ‘dew’ ~ Cauc: Lak *pic* ‘dew, sweat’, etc. < PNC **pĩncʷA*

qaqám (Y) ‘bitter; unsweetened; sour’ (but *gaqáy* [H,N]) ~ Cauc: Ubykh *qʰaqʰə* ‘sweet’, etc. < PNC **qʰǝflV*

qarúúyo (H) (~ *garúúyo* [N]) ‘heron’ ~ Cauc: Adyge *q:araw* ‘crane’, etc. < PNC **qʰǝrǝǝqʷV*

-*qhásin* (H,N) ‘hind end, arse’ ~ -*xásan* (Y) ‘female sex organ’ ~ Cauc: Udi *qoš* ‘behind’, etc. < PEC *-*VqV*

-*qhát* (H,N) ~ -*xát*, -*xat* (Y) ‘mouth’ ~ Cauc: Lak *q^wít* ‘Adam’s apple, beak’, etc. < PEC **qwít*’i

-*qhúrpat* (H,N) ~ -*xórpét* (Y) ‘lung’ ~ Cauc: Tsez *χot’ori*, etc. ‘lung’ < PEC **qwəłθV(rV̄)*

tókur (H,N) ‘wooden chest (for grain, etc.)’ ~ Cauc: Rutul *t’ak* ‘basket (for berries)’, etc. < PNC **t’āqV*

tumáy (H,N) ‘nutshell, shell of fruitstone’ ~ *tumá* (Y) ‘hard shell (of nut, egg), fruit stone’ ~ Cauc: Chechen *t’um* ‘marrow; kernel (of a fruit, nut)’, etc. < PNC **t’ümhV*

ther (H,Y) ~ *ther-k* (N) ‘dirt’ ~ Cauc: Akhwakh *tereti* ‘ashes, dust’, etc. < PEC **türV*

Correspondences to Caucasian lateral affricates: As already pointed out in some of the notes to the above lexical comparisons, there are recurrent correspondences between Burushaski initial *t-* (*th-*) and medial *-lt-* (*-ld-*) and the Proto-Caucasian lateral affricates (**λ*, **λ̣*, **λ̣’*), as shown in the following examples. The corresponding reflexes in Basque are initial *l-* and medial *-rd-*, respectively. (Comparisons already listed above will be cited in abbreviated form) :

(a) examples with Burushaski initial *t-* (*th-*):

Bur. *tal* ‘dove’ ~ PEC **λ̣’eλ̣’ē*

Bur. *tal* (H) ‘stomach, belly’ ~ Cauc: Avar *t’ul* ‘liver’, etc. < PEC **Hlāλ̣’V*

Bur. (H,N) *tápi* ‘stone terrace’ ~ PEC **λ̣’ēpV̄* ~ Basque *lape*

Bur. *tur-ćún* ~ *tur-śún* ‘marmot’ ~ PNC **λ̣ārV*

Bur. *tar-ín* ‘skin bag’ ~ PNC **λ̣ōli* ‘*skin’ ~ Basque *larru*

Bur. (Y) *taγ* ‘branch, shoot’ ~ PEC **λ̣’ōrλ̣wV*

Bur. *ter* (H,N,Y) ‘high pasture, summer mountain pasture’ ~ Basque *larre*

Bur. *tik* (H,N,Y) ‘earth, ground; rust’ ~ Basque *leku* ~ *lekhu*

Bur. *tiş* ‘wind’ ~ PEC **λ̣[a]rć’V*

Bur. (H,N) *tharén-um* ‘narrow’ ~ PNC **-iλ̣’ıllV* ~ Basque *lirain*

(b) examples with Burushaski alternation of (initial) *t-* / (medial) *-lt-*:

Bur. (Y) *ten* ‘bone’ / (H,N) *-ltín* ‘bone’ (bound form) ~ PEC **λ̣’wVn?V*

Bur. (Y) *tur* ‘horn’ / (HN) *-ltúr* (bound form) ~ PEC **λ̣’wĩrV* ~ Basque *adar*

Bur. *tap* ‘leaf’ / *du-ltápi-* (*-ltápu-*) ‘to wither’ ~ PNC * λ' ápi
 Bur. (Y) *té-* / *-lté-* ‘to swear’ ~ PEC * $Hi\lambda V$ ‘to say’ (NCED 572)
 Bur. (Y) *túl-* / *-ltúl-* ‘to saddle’ ~ PEC * $\lambda'witē$
 Bur. *tá-* / *-ltá-* ‘to put on (shoes, stockings)’ ~ PEC * $-ōm\lambda V$ ‘to put on (trousers, shoes)’
 (NCED 861)
 Bur. (Y) *túl-um* / *-ltúl-um* ‘the same, like’ ~ PEC * $-ā\lambda wVn$ ‘to resemble, similar’
 (NCED 261)

(c) examples with Burushaski medial *-lt-* (*-ld-*):

Bur. (Y) *baltí* ‘front room of house’ ~ PEC * $b\lambda\lambda'V$
 Bur. *-ltar-*, *-ltir-* ‘to show’ ~ PEC * $?i\lambda V$ ‘to look’ (NCED 209)
 Bur. *diltar* ‘buttermilk’ ~ PNC * $r\hbar\lambda w\check{V}$
 Bur. (H,N) *giyált* ‘spoon, scoop’ ~ PEC * $j\check{a}[/l]\lambda wV$
 Bur. (N) *daltán-* ‘to thresh’ (< * $ra\lambda an-$) ~ PEC * $-Vr\lambda V$
 Bur. *yáltar* (H,N) ‘upper leafy branches’, etc. ~ PEC * $fi\lambda\lambda'V\check{V}$
 Bur. (H) *-yáldir* ~ (N) *-yáldin* ‘part of the ribs’, etc. ~ PEC * $j\check{e}r\lambda'wV$
 Bur. (Y) (ba)-*hált-* ‘to wash’ ~ PEC * $-V\lambda'Vn$ ‘to wash, pour, weep’ (NCED 1023)

Cf. also cases where one East Caucasian language, Avar, partially converges with Burushaski in the development [t'] < * λ' :

Avar *t'ul* ‘liver’ (< * $\lambda'äHIV$) = Bur. *tal* ‘stomach, belly’
 Avar *t'ínu* ‘bottom’ (< * $H\lambda'önü$) = Bur. *táno* ‘rectum’
 Avar *t'eréna-b* ‘thin’ (< * $-i\lambda'ĩIV$) = Bur. *tharén-um* ‘narrow (of clothes)’ = Bsq. *lirain*

Further examples are given in Bengtson (2005).

Cultural vocabulary: words for domestic animals:

ačás (H,N,Y) ‘sheep, goat, sheep and/or goat(s) = Kleinvieh, small cattle’
 ~ Cauc: Adyge *āčā* ‘he-goat’, Dargwa (Akushi) *ƒeža* ~ (Chirag) *ƒač:a* ‘goat’, etc.
 < PNC * $?ējžwē$ (NCED 245)
 § Note the semantic variation ‘sheep’ ~ ‘goat’, which recurs in several of the comparisons below. Cf. *huyés*, below.

buc (H,N) ‘(ungelt) male goat, 2 or 3 years old’
 ~ Cauc: Lak *buxca* (< * $buc-\chi a?$) ‘he-goat (1 year old)’, Rutul *bac'i* ‘small sheep’, Khinalug *bac'iz* ‘kid’, etc. < PEC * $b[a]c'V$ (NCED287)
 § Note variation between the meanings ‘young goat’ and ‘young kid’ within the East Caucasian family. Berger (1998: 60) notes a similar word in Wakhi, *buč* (< Burushaski?).

čigír (Y) ~ *čhigír* (N) ~ *čhiír* (H) ‘(she-)goat’

~ Cauc: Karata *c’ik’er* ‘kid’, Lak *c’uku* ‘goat’, etc. < PNC **ǰikV̄* / **kǰV̄* (NCED 1094)

~ Basque *zikiro* ~ *zikhro* ‘castrated goat’

čhindár (H,N) ~ *čuldár* (Y) ‘bull’ (Yasin form influenced by *čulá*? See next entry.)

~ Cauc: Chamalal, Bagwali *zin*, Tindi, Karata *zini* ‘cow’, etc. < Proto-Avar-Andian **zin-HV* (NCED 262-263)

~ Basque *zezen* ‘bull’

čhulá (H,N) ~ *čulá* (Y) ‘male breeding stock’: (H) ‘drake’, (N,Y) ‘buck goat’

~ Cauc: Andi *č’ora* ‘heifer’, Agul *luč* ‘heifer’, Chechen *ěsa* ‘calf’, etc. < PEC **Hć’wǰV̄* / **Hlić’wV̄* (NCED 556)

~ Basque *txahal* [čahal] ~ *xahal* [šahal] > *txaal*, etc. ‘heifer, calf’

du (H,N,Y) ‘kid, young goat up to one year’

~ Cauc: Chechen *tō* ‘ram’, Lak *t:a* ‘sheep, ewe’, Kabardian *t’ə* ‘ram’, etc. < PNC **dwǎn?V* (NCED 405)

dágar (N) ‘ram’

~ Cauc: Avar *deřen* ‘he-goat’, Hinukh *t’eq’wi* ‘kid (about 1 year old)’, etc. < PEC **dVrq’wV* (NCED 403)

élgit (N) ~ *háłkit* (Y) ‘she-goat, over 1 year old, which has not given birth’

~ Cauc: Agul, Tsakhur *urg* ‘lamb (less than a year old)’, Chamalal *bargw* ‘a spring-time lamb’, etc. < PEC **ǰwǰǰi* (NCED 232)

huyés (H,N,Y) ‘Kleinvieh, small cattle, sheep and/or goats’

~ Cauc: Avar *fi* ‘sheep flock’, Lak *ja-* ‘sheep flock’ < PEC **fiV?V̄* (NCED 532)
§ Cf. *acás*, above.

thugár (H,N) ‘buck goat’

~ Cauc: Karata *t’uka* ‘he-goat’, Bezhta *t’iga* ‘he-goat’, etc. < PNC **t’ūgV̄* (NCED 1003)

Cultural vocabulary: the horse:

haǰúr ~ *haǰór* ‘horse’

~ Cauc: Kabardian *xwāra* ‘thoroughbred horse’, Lezgi *χwar* ‘mare’, etc. < PNC **farnē* (NCED 425)

~ Basque *behor* ~ *bohor* ‘mare’ (if < *(H)weH(w)or, or sim.)

§ Berger (1998: 185) notes resemblance to Turkish *aiğır* ‘stallion’.

-*Itúl* (H,N,Y) ‘to saddle (a horse), prepare mount’, *tilian* (H,N) ~ *tilihañ* ~ *teléhañ* (Y) ‘saddle’ (n.)

~ Cauc: Avar *ǰ’ili* [tʃ’ilí], Lak *k’ili*, etc. ‘saddle’ < PEC *ǰ’wiṭē ‘saddle’ (NCED 783)

Cultural vocabulary: grain cultivation and production:

bay (H,N: double plural *baçéñ* ~ *báyññ*) ~ *ba* (Y) ‘(small-grained) millet’ (*Panicum miliaceum*)

~ Cauc: Chechen *borc* ‘millet’, Karata *boča* ‘millet’, etc. < PNC *bǒlcwĩ (NCED 309)

ča (H,N) ~ *ča* ‘millet’ (*Setaria italica*)

~ Cauc: Bezhta *č’e* ‘a species of barley’, Andi *č’or* ‘rye’, etc. < PEC *č’[e]hIV (NCED 384)

daltán- (N) ‘to thresh (millet, buckwheat)’ (< **r-aǰa-n-*)

~ Cauc: Ingush *ard-*, Batsbi *arl-* ‘to thresh’, Tindi *rali* ‘grain ready for threshing’, etc. < PEC *-VrλV ‘to thresh’, *r-ěλō ‘grain ready for threshing’ (NCED 1031)

darč ‘threshing floor, grain ready for threshing’

~ Cauc: Dargwa *daraz* ‘threshing floor’, Lak *t:arac’a*-lu id., Tabasaran *rac:* id., etc. < PEC *hrənǰū (NCED 503)

§ Comparison by Bouda (1954, p. 228, no. 4: Burushaski + Lak).

gur (H,N,Y) ‘wheat’, *gurgán* (H,N) ‘wheat sown in autumn’

~ Cauc: Tindi *q’eru*, Archi *qoqol*, etc. ‘wheat’ < PEC *gǒlʔe (NCED 462)

~ Basque *gari* ‘wheat’ (combinatory form *gal-*)

§ Berger (1998: 161) notes the similar Tibetan word, *gro* ‘wheat’.

harş (H,N) ~ *harş* ~ *haşç* (Y) ‘plow’

~ Cauc: Akhwakh *ferc:e* ‘wooden plow’, Lak *qa-ras* id., etc. < PNC *Hrājcū (NCED 601)

Cultural vocabulary: other artifacts:

baltí (Y) ‘front room of house’ ~ *baldí* (H,N) ‘veranda’

~ Cauc: Hinukh *buǰe* ‘house’, Lak *burč’a*-lu ‘threshold’, etc. < PEC *bǔlǰ’V (NCED 312)

čhágur (H,N) ‘chest or box for grain or meal’

Cauc: Avar *caγúr* ‘corn bin, barn’, Chechen *cχar* ‘penthouse’, etc. < PEC
**cVGVrṼ* (NCED 328)

giyált (H,N) ‘spoon, scoop’

~ Cauc: Hunzib *ēgu* ‘wooden shovel’, Lezgi *jirf* id., etc. < PEC **jǎ[l]χwV*
(NCED 673)

chor (H,N) ‘large wicker basket’

~ Cauc: Akhwakh *koro* ‘trough, gutter’, Lezgi *k:war* ‘a big jar (for carrying
water)’, etc. < PEC **k̲wərV* (NCED 706)

tókur (H,N) ‘wooden chest (for grain, etc.)’

~ Cauc: Ingush *t’aqɑ* ‘tub (for cheese brine)’, Rutul *t’ak* ‘basket (for berries)’, etc.
< PNC **t’āqV* (NCED 997)

-yeés (H,N) ‘lasting dwelling place, permanent residence’

~ Cauc: Tsakhur *jic’a* ‘sty, cattle shed’, Ubykh *cʷəjɑ* ‘house, room’, etc. < PNC
c’[ī]ju (/ **j[ī]c’u*) (NCED 364)

~ Basque *etxe* [eče] ‘house’

§ Bur. and Basque compared by Berger (1956: 18, 24).

Abbreviations: H = Hunza, N = Nager, Y = Yasin (dialects of Burushaski); NCED = Nikolayev &
Starostin 1994

PEC = Proto-East Caucasian, PNC = Proto-North Caucasian, PWC = Proto-West Caucasian

Conclusions:

On the basis of more than 70 cognate sets in basic vocabulary, together with the regular phonological patterning of the cognates and the shared morphological patterns, a genetic relationship among Burushaski, the North Caucasian languages, and Basque is the best hypothesis for explaining these similarities.

Cultural vocabulary shared by the same languages, including words for domestic sheep and goats, for cultivated grain crops (and processes connected with them), and for other artifacts, suggests that the speakers of the proto-language ancestral to these languages (Euscaro-Caucasian or Macro-Caucasian) dispersed as early as 7000 to 9000 years BP in association with the spread of animal domestication and the cultivation of grain.