

# Ideophonic verb compounds in Archi

GILLES AUTHIER

ÉCOLE PRATIQUE DES HAUTES ÉTUDES – PSL

Submitted: 21/03/2023 Revised version: 07/09/2023

Accepted: 12/02/2024 Published: 12/06/2024



Articles are published under a Creative Commons Attribution 4.0 International License (The authors remain the copyright holders and grant third parties the right to use, reproduce, and share the article).

## Abstract

Archi is a one-village language (1,000 speakers) belonging to the Lezgian branch of East Caucasian. It has a large and productive class of compound verbs combining a light verb and ‘coverbs’ of nominal, adjectival, verbal or unknown origin. It stands out among its closest relatives in the way it has created, under the influence of Lak, a large class of compounds using the verb *bos* ‘say’. We consider all coverbs used with *bos* and its allomorphs to be ideophones and propose a semantic classification of all ideophonic verbal compounds: sound and speech verbs, verbs of non-auditory sensations, ingestion, movement, and effortful activities. All primary data were extracted with partial paradigms and some examples from Chumakina et al.’s Archi online dictionary. Their phonotactic shapes, not substantially different from other parts of speech, are examined, as well as borrowings and specific ‘children’s speech’ ideophones.

**Keywords:** East Caucasian; Archi; compound verbs; ideophones

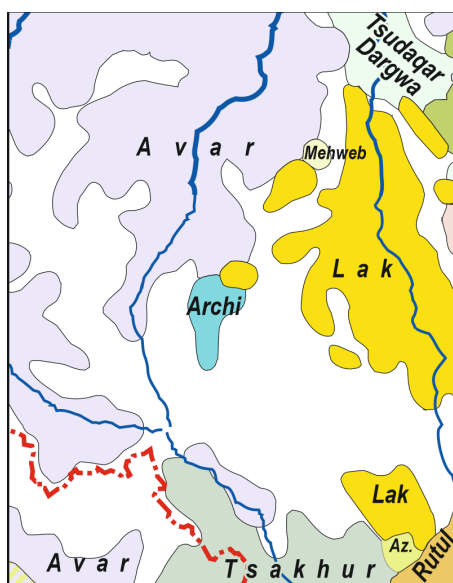
## 1. Introduction

While all languages have symbolic uses of certain combinations of phonemes to suggest sounds or other sensations perceived by speakers, it is clear that not all languages use them with the same frequency. In some parts of the world, languages are known to make constant use of a variety of ideophones, while in other regions ideophones are much more discreet, or even difficult to find for descriptive linguists. More surprisingly, it happens that within the same language family, spoken in the

same region and among cultures that are closely related, some languages use very few ideophones, while in others they are omnipresent. This is the case in the East Caucasian family, where most languages make only very limited use of ideophones. However, three geographically contiguous languages, two large ones (Dargwa and Lak) and one very small (Archi), belonging to three different branches of the family, have many verbal compounds, extremely frequent in all types of speech, which consist of the verb ‘say’ immediately preceded by and often merged with a ‘coverb’ whose expressive function is often but not always clear.

With about 1,000 speakers in total, Archi has also been one of the most studied and best described languages in this family, especially since Kibrik et al. (1977), Kibrik (1994) and Chumakina et al. (2007). It has also gained some fame for its rich verbal morphology, which Kibrik estimates to produce up to 1.5 million inflected and derived forms. Classified as a member of the Lezgian subfamily, Archi has no contact with its closely related cousins, from which it has been separated to the south by the Great Caucasus mountain range for at least one thousand years. This geographical separation positions Archi as a distinct northern outlier.

On the other hand, Archi has long been in contact with Lak in the northeast and with Avar in the west. Today the speakers identify as ethnic Avars, although Russian has replaced Avar as the language of instruction in the village school. Nevertheless, the use of ideophones in ‘say’-compounds bears witness to the earlier predominance of Lak, rather than Avar, on Archi. Figure 1 shows a map of Archi and surrounding languages.



**Figure 1:** Location of Archi and surrounding languages (courtesy of Y. Koryakov)

### 1.1. Simplex verbs in East Caucasian, Lezgian and Archi

Within the East Caucasian family, western branches (Nakh, Avar, Andic, and Tsezic) have overall simpler verbal morphology than eastern branches (Dargwa, Lezgian and Khinalug), with Lak occupying an intermediate position on the complexity scale. This state of affairs correlates largely with a higher number of simplex verbs and a lower number of compounding strategies in the western branches as opposed to the inflectionally more complex eastern ones.

Within the Lezgian subgroup, some languages have many simplex verbs (several hundred in Rutul, Tabasaran or Budugh, each of which belongs to one of the three branches of the so-called Central Lezgian languages), while others have fewer than two hundred, such as Kryz (sister language of Budugh), Tsakhur (sister language of Rutul) or Udi (another outlier to the south), although this does not seem to be linked to their immediate relationship.

Archi is a northern outlier, and belongs to the second category, with only 163 simplex verbs according to Kibrik et al. (1977) via Chumakina and Corbett (2015: 102). These simplex verbs typically mark at least aspect and gender, as in (ex. 1; note that the ‘animate’ gender includes many inanimate referents, like ‘corner’ here, or ‘road’ in ex. 2a):

- (1) *to-w-mu*                      *χ:<sup>w</sup>alli-li-n*                      *mec:'e*                      *b-eq:'u.*  
 DIST-M-ERG                      bread-OBL-GEN      corner(A)(NOM)      A-bite.PF  
 ‘He bit off a piece of bread.’ (Chumakina et al. 2007, as all further examples unless otherwise stated)

As in other Lezgian languages preserving the category of gender and gender/number agreement of verbs with the nominative argument (S or P), the morphology of Archi verb stems is complex, characterized by the irregular interplay of gender/number markers with aspect markers, with numerous verb classes. Archi also preserves a few traces of spatial prefixes (preverbs). In the paradigm of such verbs, when two forms appear in one cell, the former represents the fourth gender (N, for ‘non-animate’) form while the latter represents the third gender (A for ‘non-human animate’) form. For instance, ‘do’, ‘bite’, ‘become’ and ‘beat’ have the following principal parts (Table 1):

	INF	IPF	PF	IMPER	MSD
‘do’	<i>as/ ábas</i>	<i>ar/ bar</i>	<i>aw/ ábu</i>	<i>a/ ba</i>	<i>ámul/ bámul</i>
‘become’	<i>kes/ bekés</i>	<i>ker/ bekér</i>	<i>ét:i/ ébt:i</i>	<i>ka/ baká</i>	<i>kummúl/ bukmúl</i>
‘beat’	<i>dáχis/ dábχis</i>	<i>dárχir/ dábχir</i>	<i>dáχdi/ dábχdi</i>	<i>dáχi/ dábχi</i>	<i>dáχmul/ dábχmul</i>
‘bite’	<i>éq:’as/ béq:’as</i>	<i>érq:’ur/ bérq:’ur</i>	<i>réq:’u/ béq:’u</i>	<i>éq:’a/ béq:’a</i>	<i>éq:’mul/ ébq:’mul</i>

**Table 1:** Inflection of simplex verb stems in the third and fourth gender in Archi  
(data from Chumakina et al. 2007)

If we consider the situation in languages such as Budugh, Rutul and Tabasaran, it does not seem that the maintenance of a large number of simplex verbs correlates with simplification of the inflectional system, and therefore the reduction of the number of simplex verbs in Archi is not necessarily linked to the maintenance (or even the development) of a rich and complex verbal morphology.

Instead, contact with two major prestige languages, which are only distantly related to Archi, has undoubtedly favoured the renewal of its verbal lexicon, in the same way that Azeri has contributed to the replacement of many verbs in many Lezgian languages. Contact with Avar has even affected verbal inflection: for instance, the Avar prohibitive suffix *-gi* has replaced in Archi the equivalent prefix *ma-* attested in all other Lezgian languages.

### 1.2. Compound verbs in East Caucasian, Lezgian and Archi

Whatever the cause of the reduced number of simplex verbs in Archi, the language makes extensive use of compound verbs to compensate for this reduction. As in Kryz, Udi or Tsakhur, there are many more or less lexicalized and morphologically merged locutions in Archi combining the verbs *as* ‘do’ (ex. 2a and 2b), *kes* ‘become’ (ex. 3) with adjectives or ‘stative verbs’ (themselves a type of adjectives):

- (2) a. *χaballi de<sup>h</sup>q’ kut’a b-ar.*  
 talk.ERG road(A) short A-do.IPF  
 ‘Conversation shortens the journey.’

- b. *χ:allu-r t:anna bošor χala w-ar.*  
 bad.ATTR-F woman.ERG man(NOM) old M-do.IPF  
 ‘A bad wife makes the husband old.’

- c. *ez ja-t kummul aχ<sup>s</sup>*  
 (N)1SG.DAT PROX-N food(N)(NOM) (N)enough  
*ker.*  
 (N)become.IPF  
 ‘This (amount of) food is enough for me.’

This type of compound is known to all languages related to Archi, whether closely or distantly, but with a level of productivity that varies greatly across these languages, and is clearly inversely proportional to the number of simplex verbs they possess.

Archi differs notably from all other Lezgetic languages in its use of verbal compounds with the verb ‘say’. This strategy, unknown in Avar, is widespread in Lak, as well as in all Dargwa dialects. Given the long-dominant position of Lak in the region and in spite of Dargwa speakers now outnumbering Lak speakers four to one, it is fairly certain that the development of ‘say’-compounds spread from Lak into the Dargwa dialects in the northeast and into Archi in the southwest.

Note that some Archi verbs corresponding to verbs often involving ideophones in other languages may not fall into this category. For instance, the verb meaning ‘laugh’ bears no trace of any light verb, and is indeed related, as seen in Table 2, to simplex verbs in other Lezgetic languages. It was probably never a compound verb, and unlike all compound verbs formed with ‘say’, it takes gender/number prefixes. This, of course, does not rule out the possibility that the root ( $\chi^s a$ ) of this verb was originally an ideophone (cf. Russian *xoxotat*’, etc).

	INF	IPF	PF	IMPER	MSD
‘laugh’	$\chi^s arás$ /	$\chi^s ar$ /	$\chi^s ará\chi^s u$ /	$\chi^s ará\chi^s a$ /	$\chi^s ará\chi^s -mul$ /
	$ba\chi^s rás$	$ba\chi^s ár$	$ba\chi^s rá\chi^s u$	$ba\chi^s rá\chi^s a$	$ba\chi^s rá\chi^s -mul$

**Table 2:** Principal parts of the verb ‘laugh’ in Archi  
 (data from Chumakina et al. 2007)

### 1.3. The verb ‘say’ in Archi, forms and external comparison

The verb ‘say’ in Archi is simple, with four out of five principal parts showing the onset *b*, while the imperfective (present tense) form starts with the consonant *w* (cf. Table 3).

	INF	IPF	PF	IMPER	MSD
'say'	<i>bos</i>	<i>war</i>	<i>bo</i>	<i>ba</i>	<i>bumul</i>

**Table 3:** Principal parts of the verb 'say' in Archi

This is a case of quasi-suppletion, but the *b/w* onset is probably a frozen animate gender marker, found with speech acts (these belong to the non-human animate gender in languages like Rutul or Kryz, cf. Authier 2009§ 4.3.1).

This verb has reflexes in all other Lezgian languages:

- Southern branch: Budugh perfective *yɪpa*, imperfective *yuʔu*, Kryz masdar (verbal noun) *lip-idž*, imperfective *lu-* or *li-*;
- Eastern branch: Lezgian masdar *luhu-n*, perfective *laha-*, Tabasaran masdar *pub*, Aghul infinitive *pas*;
- Western branch: Rutul infinitive *(hu)xus*, imperfective *ruxu-* or *rux<sup>w</sup>a-*, Tsakhur infinitive *ehes*, perfective *ivho*;
- Southern outlier: Udi masdar *pe-sun*.

These cognates allow one to reconstruct a root *\*h<sup>w</sup>* or *\*x<sup>w</sup>*. Anlauts with *l-* in Lezgian and Kryz probably feature a preverb meaning 'on' because this verb was used to express the meaning 'bestow a name'. Those with a labial stop retain the frozen non-human animate gender prefix *\*b-* or *v* in Tsakhur. Agreement with an animate speech act is linked on this root with perfectivity. Imperfective forms lack it, and another, imperfective root *k* 'tell' is attested in all three core branches (in Tsakhur, in Budugh, as well as in Tabasaran, where it acts as a suppletive root for imperfective tenses of 'say').

#### 1.4. Morphosyntax of the verb 'say' in Archi

The verb 'say' is a ditransitive verb: its Agent is marked with the ergative case, while its Patient (the speech content) can be a noun or a substantivized modifier in the unmarked nominative case, and the addressee takes the Archi contlative<sup>1</sup> case, as in (ex. 3):

<sup>1</sup> Many East Caucasian languages have a series of spatial cases denoting 'contact with a vertical landmark', cf. Ganenkov (2005).

- (3) *zari wa:r-šī os č'at bo-qi.*  
 1.ERG 2.SG.OBL-CONTLAT one word(N) say.PF-FUT  
 'I will say a word to you.'

The class of ditransitive verbs is very large in most Lezgian languages and more broadly in East Caucasian because it contains the large subclass of contact verbs which treat body parts or instruments as the unmarked argument, in the nominative case (ex. 4 and 5), and even if these referents are omitted, the third (goal) argument, if animate, retains its oblique marking (ex. 6).

- (4) *zari to-w-mu-s χ:ik' dabχdi.*  
 1SG.ERG DIST-M-OBL-DAT fist(A)(NOM) A.hit.PF  
 'I hit him with my fist.'

- (5) *zari to-w-mu-s χatum-l-a-k č'ele dabχdi.*  
 1SG.ERG DIST-M-OBL-DAT chest-OBL-IN-LAT stone(A)(NOM) A.hit.PF  
 'I hit him in the chest with a stone.'

- (6) *bošor-mu łanna-s darχir-ši i.*  
 man-ERG woman.OBL-DAT hit.IPF-CV (N)COP  
 'The husband is beating his wife.'

The verb 'say' is used in a somewhat similar manner, and many speech act expressions registered in the dictionary, including combinations like these proverbs (ex. 7 and 8):

- (7) *e'nkdu-mmu-s q'e'jla akbar war-t'u.*  
 deaf-OBL-DAT two\_times azan(N) say.IPF-NEG  
 'For a deaf person, one does not issue a call for prayer twice.'

- (8) *hara-χut mu-ttu-t war-ttu-mu muχara-χut*  
 front-TRANS NICE-ATTR-N say.IPF-ATTR-ERG behind-TRANS  
*χ:allu-t war.*  
 bad.ATTR-N say.IPF  
 'He who says good things to his face says bad things behind his back.'

Other lexicalized expressions, such as *k<sup>w</sup>ač'et bos* 'lie', are equally not ideophonic because they contain a nominal element which exists independently (the word *k<sup>w</sup>ač'et* is a noun in the nominative case; it has a plural *k<sup>w</sup>ač'et-mul* and other cases such as ergative singular *k<sup>w</sup>ač'et-li* and ergative plural *k<sup>w</sup>ač'et-mul-čaj*) and holds the status of syntactic constituent, since the unmarked nominative case is proper to any patient argument of a transitive verb. The combinations of such nouns or noun phrases with the verb *bos* are thus locutions, not compounds, as illustrated in Table 4.

	PF	IPF	INF	IMPER	MSD
'lie'	<i>k<sup>w</sup>ač'et bos</i>	<i>k<sup>w</sup>ač'et war</i>	<i>k<sup>w</sup>ač'et bo</i>	<i>k<sup>w</sup>ač'et ba</i>	<i>k<sup>w</sup>ač'et bumul</i>
'greet'	<i>warč'ámi bos</i>	<i>warč'ámi war</i>	<i>warč'ámi bo</i>	<i>warč'ámi ba</i>	<i>warč'ámi bumul</i>
'sing the azan'	<i>akbár bos</i>	<i>akbár war</i>	<i>akbár bo</i>	<i>akbár ba</i>	<i>akbár bumul</i>
'thank'	<i>bárka bos</i>	<i>bárka war</i>	<i>bárka bo</i>	<i>bárka ba</i>	<i>bárka bumul</i>
'tell the truth'	<i>t'államat bos</i>	<i>t'államat war</i>	<i>t'államat bo</i>	<i>t'államat ba</i>	<i>t'államat bumul</i>

Table 4: Non-ideophonic compounds with the verb 'say' in Archi  
(data from Chumakina et al. 2007)

### 1.5. Imperative words as coverbs

Archi also has "imperative interjections" like *ma!* 'Take this!' or *č'eb(a)!* 'come!' (ex. 9 and 10) which can be employed with the verb 'say':

- (9) *lač<sup>w</sup>ejwu*                      *to-w-u*                      *č'eb + ba!*  
 1PL.INCL.COM.M                      DIST-M-AND                      "come!" + say.IMPER  
 'Ask him to come with us.'

- (10) *w-ez*                      *to-w*                      *za-łu*                      *kino-li-tik*  
 M-1SG.DAT                      DIST-M                      1.OBL-COM                      cinema-OBL-SUPEREL  
*č'eb + bo-s*                      *kł'an-ši*                      *w-i*.  
 "come!" + say-INF                      want-CV                      M-COP  
 'I want to ask him to come to the cinema with me.'

The principal parts of these combinations sometimes show no trace of morphological modification of the light verb. Nevertheless, the proper imperative



verb forms like *(b-)oq'i* ‘Give it to me!’ (a suppletive imperative form of the verb *kłos* ‘give’), used with ‘say’ as a compound verb meaning ‘request’, can be followed by either an unchanged form of the verb ‘say’ or, mainly in the imperfective, by a reduced form. Such a reduced form has grammaticalized as a ‘reportative’<sup>2</sup> ending *-er*, which goes back to *war*, the full imperfective verb stem of *bos* ‘say’. Compare the direct and indirect constructions in (ex. 11a and 11b):

(11) a. *os q<sup>ws</sup>et'u titrat oq'i-su!*  
 one two.N notebook(N) give.IMPER-PLEASE  
 ‘Please give (me) one or two copybooks.’

b. *jo-w-mu žu-s jamu-t surat*  
 PROX-M.-ERG REFL.M.OBL-DAT PROX-N.SG picture(N)  
*oq'-er.*  
 give\_me.IMPER-RPRT  
 ‘‘Give me this photo,’’ he says.’

Table 5 shows some such locutions based on an imperative form:

	PF	IPF	INF	IMPER	MSD
‘offer’	<i>má bos</i>	<i>má war</i>	<i>má bo</i>	<i>má ba</i>	<i>má bumul</i>
‘invite’	<i>č'éba bos</i>	<i>č'ébuwar</i>	<i>č'éba bo</i>	<i>č'éb(a) ba</i>	<i>č'éba bumul</i>
‘request’	<i>óq'i bos</i> / <i>b-óq'i bos</i>	<i>óq'i war</i> / <i>óq'er</i> <i>bóq'i war</i> / <i>b-óq'er</i>	<i>óq'i bo</i> / <i>b-óq'i bo</i>	<i>óq'i ba</i> / <i>b-óq'i ba</i>	<i>óq'i bumul</i> / <i>b-óq'i bumul</i>

Table 5: Non-ideophonic compounds with frozen imperative words  
 (data from Chumakina et al. 2007)

### 1.6. Proper and pseudo-ideophonic coverbs

Ideophonic coverbs have been identified but not properly studied in the existing literature on Archi. They are coalescent words, never found without the verb ‘say’ (i.e. they do not constitute a lexical entry in their own right), with which they often

<sup>2</sup> On this reportative suffix, see Chumakina (2013).

fuse, especially with the imperfective form *war*: ‘yell’ *q’awar* < *q’iɣ* + *war* and ‘cry’ (baby) *a<sup>s</sup>ngá<sup>r</sup>* < *a<sup>s</sup>ngá<sup>s</sup>* + *war*.

The root of the verb ‘say’ can take the form *bu-* or *mu-*, instead of *bo-*, as with the verb ‘cry’ in (ex. 12):

- (12) *e<sup>s</sup>mmu-li*            *ja-r*    *lo*            *q’iɣ* + *bo-li*.  
 cry + say.PF-EVID    PROX-F    child(NOM)    yell + say.PF-EVID  
 ‘The girl cried and screamed.’

In the perfective form *e<sup>s</sup>mmuli* (< \* *e<sup>s</sup>n* + *bo-li*) both consonants at the morpheme break have assimilated. However, the coverb *e<sup>s</sup>n* is as identifiable in *e<sup>s</sup>mmuli* as *qi<sup>r</sup>* is in *qi<sup>r</sup>-boli*. In both cases, the elements *e<sup>s</sup>n*, *qi<sup>r</sup>* and others of the same type are likely to be ideophones from the outset. Compare in (ex. 13) the analytic verb forms of ‘cry’ with the synthetic forms of ‘laugh’:

- (13) *e<sup>s</sup>n*    *war-ma*            *χ<sup>w</sup>a<sup>r</sup>-gi*,            *χa<sup>r</sup>-ma*  
 cry    say.IPF-WHERE    laugh.IPF-PROHIB    laugh.IPF-WHERE  
*e<sup>s</sup>n*    *war-gi!*  
 cry    say.IPF-PROHIB  
 ‘Where one cries, do not laugh! Where one laughs, do not cry!’

Among the verbs listed in the following sections, some form their masdar with the default masdar suffix *-mul*, which may be related to *-mu-s* < *-bus* < *bos*, while others use instead use a suffix *-t’i*, which is never found attached to roots of simplex verbs. This suffix is actually borrowed from Lak, where it is the masdar of the verb *t’un* ‘say’. It is a curious paradox that the masdar form of many compound verbs otherwise formed with a variant of *bos* shows no trace of the Archi verb *bos*.

Most of these verbs have semantics compatible with an origin as ideophones, encompassing a range of semantic subdomains, from intransitive sound verbs to monotransitive action verbs. Among these supposed ideophonic compounds of Archi, Chumakina (2015) identifies two main semantic classes: ‘verbs of speech and mouth activities’ and ‘ideophones’, adding: ‘However not all *-bos* verbs belong to these semantic classes, [and] the rest of them do not constitute a homogenous class.’ It seems necessary to continue the examination from a semantic perspective, before drawing conclusions as to the more formal aspects, in order to arrive at a more detailed description of this essential part of the Archi verbal lexicon.

The semantic fields to which coverbs used with ‘say’ belong correspond to those generally illustrated by ideophones in the other languages of the world where they are used. Whatever their origin, they cannot be used without the light verb ‘say’.

In the infinitive of such verb compounds, the light verb may appear in three somewhat integrated forms: *bos*, *-bus* and *-mus*, e.g.

- *hakʔ bos* ‘yawn’
- *c’á-bus* ‘drink cold liquids’,
- *ʕám-mus* ‘bite’ (child speech)

In what follows, we shall first consider as ideophones all coverbs used with *bos* or its bound variants (*-bus* and *-mus*) because in a language as phonologically rich as Archi, which contains no fewer than 70 consonants, it would be hazardous to decide a priori which phonemic combinations should be considered expressive. It shall therefore be assumed that all non-autonomous coverbs used with a form of the verb ‘say’ (*bos*, *-bus* or *-mus*) are essentially ideophonic.

The ideophonic compound verbs will be presented in turn and classified in the following semantic fields: first, sound verbs (oral, body-related, non-body-related) will be discussed in Section 2, followed by non-sound verbs (non-auditive sensations, movements, actions) in Section 3. Section 4 will focus on phonological issues, Section 5 will deal with derivation, Section 6 will present ideophones in children speech, Section 7 will address the treatment of loans, and finally, Section 8 will demonstrate, through external comparison, that some supposed ideophonic coverbs in fact have a non-ideophonic origin.

## 2. Sound verbs

This section will be devoted to verbs denoting the production of sound. It is divided into two subsections, the first dealing with sounds of the external, natural world, and the second all nuances of oral human sounds, i.e. speech verbs.

### 2.1. Weather and animal sound verbs

Weather and animal sound verbs are shown in Table 6; they comprise verbs for the sound of rain and thunder (ex. 14), the cries of wild and domestic animals (ex. 15 and following), as well as human cries addressing domestic animals (ex. 22). All these verbs

are intransitive, and all preserve intact the form of the verb ‘say’ in the infinitive (*bos*), except for two where it changes to *-bus*. However, the imperfective forms can be fused.

(14) *dunil qubu.*

sky(N) thunder + say.PF

‘It thundered.’

(15) *ak:ommis ħeleku uriʔiʔuʔ war.*

dawn.DAT rooster(A) crow say.IPF

‘The rooster crows in the morning.’

(16) *ziz bo-nnu-b tʻantʻ-li imcʻ a-r-tʻu.*

buzz say.PF-ATTR-A bee-ERG honey(N) (N)do-IPF-NEG

‘Not every bee that buzzes makes honey.’ (proverb)

(17) *noʔš ħihir-ši b-i.*

horse(A) whinny.say.IPF-CV A-COP

‘The horse is whinnying.’

(18) *χʷarkʻ bur-ši b-i*

pigeon(A) coo.say.IPF-CV A-COP

‘A pigeon is cooing.’

(19) *χʻon bu bo*

cow(A) moo say.PF

‘A cow mooed.’

(20) *gʷači iqan haʻmpar-ši b-i.*

dog(A) all\_day bark.say.IPF-CV A-COP

‘The dog barks all day.’

(21) *noʔš uh war-ši b-i.*

horse(A) sigh say.IPF-CV A-COP

‘The horse is sighing.’

- (22) *uł-mi ju bo č'abu.*  
 shepherd-ERG ideoph say.PF sheep.PL.NOM  
 'The shepherd shouted to drive the sheep on.'

Verbs denoting animal sounds can be used metaphorically to describe a human being (ex. 23–25) or even an inanimate referent (ex. 26):

- (23) *to-w dogi bana haʔar-ši w-i.*  
 DIST-M donkey(A) LIKE bray.say.IPF-CV M.-COP  
 'He brays like a donkey.'

- (24) *te-b χom č'irq'ir war-ši.*  
 DIST-PL.NOM woman.PL.NOM chirp say.IPF-CV  
 'Those women chirp rather than talk.'

- (25) *to-w noq:ʔon bana c'arar-ši w-i.*  
 DIST-M(NOM) mouse(A) LIKE squeak.say.IPF-CV M-COP  
 'He is squeaking like a mouse.'

- (26) *dakł' c'arar-ši i.*  
 door(N) creak.say. IPF-CV (N)COP  
 'The door is creaking.'

	PF	IPF	INF	IMPER	MSD
'thunder'	<i>qúbus</i>	<i>qúr</i>	<i>qúbu</i>	<i>qú ba</i>	<i>qút'i</i>
'pour' (rain)	<i>wéʒ bos</i>	<i>wéʒ war</i>	<i>wéʒ bo</i>	<i>wéʒ ba</i>	?
'chirp'	<i>č'irq'ir bos</i>	<i>č'irq'ir war</i>	<i>č'irq'ir bo</i>	<i>č'irq'ir ba</i>	<i>č'irq'irt'i</i>
'buzz'	<i>zíz bos</i>	<i>zíz war</i>	<i>zíz bo</i>	<i>zíz ba</i>	<i>zíz bumul</i>
'bark'	<i>ha'mp bos</i>	<i>ha'mpár</i>	<i>há'mp bo</i>	<i>há'mp ba</i>	<i>há'mpt'i</i>
'whinny'	<i>hihí bos</i>	<i>hihi wár</i>	<i>hihí bo</i>	<i>hihí ba</i>	<i>hihi bumúl</i>
'bray'	<i>hóʔ bos</i>	<i>haʔár</i>	<i>hóʔ bo</i>	<i>hóʔ ba</i>	<i>hóʔt'i</i>
urge sheep on'	<i>jú bos</i>	<i>júwar</i>	<i>jú bo</i>	<i>jú ba</i>	<i>jú bumul</i>

**Table 6:** Sample of ideophonic weather sound verbs and animal communication verbs in Archi (data from Chumakina et al. 2007)

## 2.2. Speech impairments and inarticulate oral expression

Equally formed by compounding are intransitive verbs denoting speech impairments as well as inarticulate human oral expression (cf. the verbs shown in Table 7, ex. 27–29):

	PF	IPF	INF	IMPER	MSD
‘stammer’	ʔáls bos	ʔáls war	ʔáls bo	ʔáls ba	ʔálst'i
‘grumble’	dúmɛum bos	dúmɛum war	dúmɛum bo	dúmɛum ba	dúmɛum bumul
‘mumble’	búrɛʔur bos	búrɛʔur war	búrɛʔur bo	búrɛʔur ba	búrɛʔurt'i
‘yell’	q'ɪɛ bos	q'awar	q'ɪɛ bo	q'ɪɛ ba	q'ɪɛt'i
‘cry’ (baby)	a'ngáʔ bos	a'ngáʔr	a'ngáʔ bo	a'ngáʔ ba	a'ngáʔt'i
‘squeak; creak’	c'ír bos	c'arár	c'ír bo	c'ír ba	c'írt'i
‘cry’	éʔmmus	éʔmmur	éʔmmu	éʔmma	éʔmt'i
‘crack (voice)’	ɛʔwɛár bos	ɛʔwɛár war	ɛʔwɛár bo	ɛʔwɛár ba	ɛʔwɛár bumul
‘sob’	s:ínk' bos	s:ánk'ár	s:ínk' bo	s:ínk' ba	s:ínk't'i
‘croak; cry’	rás bos	rás war	rás bo	rás ba	rás bumul
‘whistle’	ʃ:ʔít' bos	ʃ:ʔít'ár	ʃ:ʔít' bo	ʃ:ʔít' ba	ʃ:ʔítt'i
‘whistle softly’	ʃ:ʔít'qʔwɛit' bos	ʃ:ʔít'qʔwɛit' war	ʃ:ʔít'qʔwɛit' bo	ʃ:ʔít'qʔwɛit' ba	ʃ:ʔít'qʔwɛítt'i

**Table 7:** Ideophonic inarticulate oral expression verbs in Archi  
(data from Chumakina et al. 2007)

(27) *to-r*    ʧʔe-kul-li            eʔm war-ʃi            d-i.  
DIST-F    be\_cold-MSD-ERG    cry    say.IPF-CV            F-COP  
‘She is crying because she is cold.’

(28) *to-r*    ʔonnol            ac'i-li            q'ɪɛ bo.  
DIST-F    woman(F)(NOM)    pain-ERG    yell say.PF  
‘This woman cried out in pain.’

(29) *un*            daki    duna:la burɛʔur    war  
2.SG.NOM    why    a.lot    grumble    say.IPF  
‘Why do you grumble so much?’

Compound verbs denoting manners of oral expression do not necessarily have a human subject; for instance, they can describe the speech itself (ex. 30):

- (30) *piriz-li*            *su-mč'iš*            *wit*            *č'at*            *łals*  
 paralysis-ERG    hold.PF.M-COND    2.SG.GEN    word(N)    stammer  
*bo-qi.*  
 say.PF-FUT

'If you are stricken by paralysis, your speech will become impaired.'

Also, some verbs in the list are occasionally used with reference to animals (ex. 31):

- (31) *s:ink'*    *bo-li*            *i-t'u*            *baħri.*  
 sob    say.PF-CV    (N)AUX-NEG    stray\_dog  
 'The stray dog did not sob.'

### 2.3. Human speech and communication

Most verbs referring to articulate speech acts are specific to human communication, as seen in Table 8. Some of them are intransitive, as in (ex. 32–34):

- (32) *zon*            *to-w-mu-łu*            *kino-li-n*            *ħaq'liq<sup>s</sup>*    *ba<sup>s</sup>bu.*  
 1SG.NOM    DIST-M-OBL-COM    film-OBL-GEN    about    talk + say.PF  
 'I was talking to him about films.'

- (33) *to-w*    *t'inna*            *č'ak'ar.*  
 DIST-M    a.little    chatter.IPF  
 'He is a bit of a chatterbox.'

- (34) *to-w*            *š:<sup>w</sup>it'q<sup>w</sup>it' + war-ši*            *qecašecer-ši.*  
 DIST-M(NOM)    whistle + say.IPF-CV    walk.IPF-CV  
 'He was walking up and down, whistling softly.'

Others are transitive, in that their construction has an agent in the ergative. The nominative patientive argument can be the coverb itself, treated as a speech act (ex. 35 and 36):

- (35) *to-w-mu za:r-ši šuš bo.*  
 DIST-M-ERG 1.OBL-CONT-ALL whisper say.PF  
 ‘He whispered to me.’

- (36) *zari š<sup>w</sup>it’ bo-qi.*  
 1.ERG whistle say.PF-FUT  
 ‘I will whistle.’

In other transitive verbs of the same semantic class, the coverb is coalescent and speech content (ex. 37) or an animate addressee (ex. 38–40) can be treated as the direct object in the nominative case:

- (37) *zari marči g<sup>w</sup>abq:’u-timme-s lagum χabu.*  
 1.ERG everybody HPL.gather.PF-ATTR.PL-DAT song(N) sing + say.PF  
 ‘I sang a song to everyone who had come.’

- (38) *nen marči zab bo oq-li-ti-k.*  
 1.PL.EXCL.ERG everybody invite say.PF wedding-OBL-SUPER-LAT  
 ‘We invited everybody to the wedding.’

- (39) *um-mu lo-bur ħat bo.*  
 father-ERG child-PL.NOM scold say.PF  
 ‘The father scolded his children.’

- (40) *zari to-w aʔ bo s:afat wiklit’u-mi-t.*  
 1.ERG DIST-M call say.PF hour(N) seven.N-OBL-SUPER  
 ‘I invited him for seven o’clock.’

- (41) *w-is halmaχ-mu zon č’elle-ši aʔ bo.*  
 M-1SG.GEN friend-ERG 1SG.NOM outside-ALL call say.PF  
 ‘My friend asked me to go out.’

The alternative construction attested in (ex. 42) is probably calqued on Russian (*zvoniť* + DAT):



- (42) *zari anži-l-aš tu-w-mi-ra-k aʔ + bo.*  
 1.ERG Makhachkala-OBL-INEL DIST-M-OBL-CONT-LAT call + say.PF  
 ‘I called him from Makhachkala.’

	PF	IPF	INF	IMPER	MSD
‘talk’	<i>báʔbus</i>	<i>báʔbur</i>	<i>báʔbu</i>	<i>báʔba</i>	<i>báʔbatʔi</i>
‘chatter’	<i>čʔákʔ bos</i>	<i>čʔakʔár</i>	<i>čʔákʔ bo</i>	<i>čʔákʔ ba</i>	<i>čʔákʔtʔi</i>
‘brag’	<i>žírq bos</i>	<i>žarqár</i>	<i>žírq bo</i>	<i>žírq ba</i>	<i>žírq bumul</i>
‘gossip’	<i>šúšqʔus bos</i>	<i>šúšqʔus war</i>	<i>šúšqʔus bo</i>	<i>šúšqʔus ba</i>	<i>šúšqʔus bumul</i>
‘whisper’	<i>šúš bos</i>	<i>šušár</i>	<i>šúš bo</i>	<i>šʔwíš ba</i>	<i>šʔwíštʔi</i>
‘sing’/‘play’	<i>χábus</i>	<i>χar</i>	<i>χábu</i>	<i>χába</i>	<i>χátʔi</i>
‘scold’	<i>ħát bos</i>	<i>ħátar</i>	<i>ħátbo</i>	<i>ħátba</i>	<i>ħátbumul</i>
‘refuse’	<i>ú:tʔu bos</i>	<i>ú:tʔu war</i>	<i>ú:tʔu bo</i>	<i>ú:tʔu ba</i>	<i>ú:tʔu bumul</i>
‘invite’	<i>záp:os</i>	<i>záb war</i>	<i>záp:o</i>	<i>záp:a</i>	<i>záp:umul</i>
‘say sharply’	<i>qʔwántʔ bos</i>	<i>qʔuntʔár</i>	<i>qʔwántʔ bo</i>	<i>qʔwántʔ ba</i>	<i>qʔwántʔ bumul</i>
‘forbid’	<i>árdigi bos</i>	<i>árdig war</i>	<i>árdig bo</i>	<i>árdigbo</i>	<i>árdig bumul</i>
‘call, invite’	<i>áʔ bos</i>	<i>aʔár</i>	<i>áʔbo</i>	<i>áʔba</i>	<i>áʔtʔi</i>

**Table 8:** Ideophonic speech act verbs in Archi  
 (data from Chumakina et al. 2007)

#### 2.4. Non-expressive oral and body sounds

Non-spoken sounds, given in Table 9, produced by the mouth and the nose are spontaneous and usually involuntary, and although they may be interpreted as such, they do not serve a primarily expressive function, for instance the verbs for ‘breathe’ (loudly), ‘yawn’, or ‘grit one’s teeth’. Most of these predicates also form compounds with ‘say’ (ex. 43 to 49):

- (43) *un jamu kʔellejwu haʔhar daki ?*  
 2.SG.NOM PROX.M wholly.M breathe.say.IPF why  
 ‘Why are you panting so much?’

- (44) *un daki hakʔar-ši w-i?*  
 why 2SG.NOM yawn.say.IPF-CV M-COP  
 ‘Why are you yawning?’

- (45) *to-w q'arš:ar-ši ewdi.*  
 DIST-M grit.say.IPF-CV M.be.PST  
 'He was gritting his teeth (with anger).'
- (46) *to-w iqna a'nša'r-ši ewdi.*  
 DIST-M all\_ay sneeze.say.IPF-CV M.COP.PAST  
 'He was sneezing all the time.'
- (47) *to-w nibk'i-t χ:ank'ar.*  
 DIST-M sleep.OBL-SUPER snore.say.IPF  
 'He snores in his sleep.'
- (48) *ak:ommi-tiš χaraxši is lagi q'urar-ši*  
 dawn.OBL-SUPEREL since (N)my stomach(N) rumble.say.IPF-CV  
*i.*  
 (N)COP  
 'My stomach has been rumbling since this morning.'
- (49) *b-is gon č'irq' bo.*  
 A-my finger(A) cracksay.PF  
 'My finger joint cracked.'

Some of these verbs can take a voluntary agent, via a dedicated causative construction with the auxiliary 'do', as in (ex. 50):

- (50) *to-wmu gon-nor č'irq' + bo-s ar.*  
 DIST-M.ERG finger-PL.NOM crack + say.INF (N)DO.IPF  
 'He cracks his knuckles.'

	PF	IPF	INF	IMPER	MSD
'breathe'	<i>há'h bos</i>	<i>ha'hár</i>	<i>há'h bo</i>	<i>há'h ba</i>	<i>há'ht'i</i>
'burp'	<i>ʕóp' bos</i>	<i>ʕóp' war</i>	<i>ʕóp' bo</i>	<i>ʕóp' ba</i>	<i>ʕóp't'i</i>
'belch; hiccough'	<i>hérq<sup>s</sup> bos</i>	<i>hérq<sup>s</sup>er</i>	<i>hérq<sup>s</sup> bo</i>	<i>hérq<sup>s</sup> ba</i>	<i>hérq<sup>s</sup>t'i</i>
'pant, puff'	<i>há'hčíł bos</i>	<i>ha'hčíł:ár</i>	<i>há'hčíł bo</i>	<i>há'hčíł ba</i>	<i>há'hčíł bumul</i>
'cough'	<i>uńú bos</i>	<i>uńúr</i>	<i>uńú bo</i>	<i>uńú ba</i>	<i>uńút'i</i>
'gnash, grit (teeth)'	<i>q'árs bos</i>	<i>q'árs:ar</i>	<i>q'árs bo</i>	<i>q'árs ba</i>	<i>q'árs't'i</i>
'clear one's throat'	<i>áχ-bos</i>	<i>áχ-bontur</i>	<i>áχ-bontubu</i>	<i>áχ-ballituba</i>	<i>áχ-bumul</i>
'yawn'	<i>hákl' bo</i>	<i>hakl'ár</i>	<i>hákl' bos</i>	<i>hákl' ba</i>	<i>hákl' bumul</i>
'sneeze'	<i>a'nšá<sup>s</sup> bos</i>	<i>a'nšá<sup>s</sup> war</i>	<i>a'nšá<sup>s</sup> bo</i>	<i>a'nšá<sup>s</sup> ba</i>	<i>a'nšá<sup>s</sup> bumul</i>
'snore'	<i>χ:ánk' bos</i>	<i>χ:ánk'ár</i>	<i>χ:ánk' bo</i>	<i>χ:ánk' ba</i>	<i>χ:ánk' bumul</i>
'resound'	<i>dé:j bos</i>	<i>dí:jár</i>	<i>dé:j bo</i>	<i>dé:j ba</i>	<i>dé:j bumul</i>
'crack' (joints)	<i>č'írq' bos</i>	<i>č'írq'ár</i>	<i>č'írq' bo</i>	<i>č'írq' ba</i>	<i>č'írq' t'i</i>
'split, crack' (wood, skin)	<i>pírq' bos</i>	<i>pírq' war</i>	<i>pírq' bo</i>	<i>pírq' ba</i>	<i>pírq't'i</i>
'rumble' (stomach)	<i>q<sup>ws</sup>ár bos</i>	<i>q<sup>s</sup>urár</i>	<i>q<sup>ws</sup>ár bo</i>	<i>q<sup>ws</sup>ár ba</i>	<i>q<sup>ws</sup>árt'i</i>
'trow up'	<i>χáq<sup>s</sup> bos</i>	<i>χaq<sup>s</sup>ár</i>	<i>χáq<sup>s</sup> bo</i>	<i>χáq<sup>s</sup> ba</i>	<i>χáq<sup>s</sup>t'i</i>
'fart'	<i>c'íq' bos</i>	<i>c'aq'ár</i>	<i>c'íq'bo</i>	<i>c'íq' ba</i>	-
'shit'	<i>qíp:us</i>	<i>qapár</i>	<i>qíp:u</i>	<i>qíp:a</i>	<i>qípt'i</i>

**Table 9:** Ideophonic involuntary body noise verbs in Archi  
(data from Chumakina et al. 2007)

## 2.5. Voluntary body noise verbs

Voluntary noise verbs, given in Table 10, like 'spit', have their subject in the ergative case (ex. 51):

- (51) *zari č'ele-li-s tubu.*  
 1.ERG stone-OBL-DAT spit + say.PF  
 'I spat on a stone.'

The sole argument of the verb ‘blow’ can be inanimate, and then takes the nominative case, as in (ex. 52):

- (52) *hawa hubu.*  
 wind(N) blow + say.PF  
 ‘The wind blew.’

If this verb takes an object, it is an indirect one, in the dative case, but the animate subject remains marked with the ergative case (ex. 53). This non-canonical valency type results from the incorporation of the ideophone *hu*:

- (53) *zari čaraχ-li-s / oc’-li-s hubu.*  
 1.ERG lamp-OBL-DAT fire-OBL-DAT blow + say.PF  
 ‘I blew the lamp out / on the fire.’

The same valency is found with other voluntary noise verbs (ex. 54 and 55):

- (54) *zari to-w-mu-s eχ<sup>ʷ</sup>u-k ba? bo.*  
 1.ERG DIST-M.-OBL-DAT cheek.SG.IN-LAT kiss say.PF  
 ‘I kissed her on the cheek.’

- (55) *laha aq-ur-če-łu č<sup>w</sup>arχ<sup>s</sup> bo.*  
 child.ERG foot-PL-OBL.PL-COM stamp say.PF  
 ‘The child stamped his feet.’

	PF	IPF	INF	IMPER	MSD
‘blow’ (wind; person)’	<i>húbus</i>	<i>hur</i>	<i>húbu</i>	<i>húba</i>	<i>hút’i</i>
‘spit’	<i>tú bus</i>	<i>tur</i>	<i>tú bus</i>	<i>tú ba</i>	<i>tút’i</i>
‘kiss’	<i>p’á? bos</i>	<i>p’a?ár</i>	<i>p’á? bo</i>	<i>p’á? ba</i>	<i>p’á?t’i</i>
‘kiss’	<i>bá? bos</i>	<i>bá? war</i>	<i>bá? bo</i>	<i>bá?-ba</i>	<i>bá? bumul</i>
‘blow one’s nose’	<i>ú<sup>nš</sup> bos</i>	<i>u<sup>nš</sup>á<sup>r</sup></i>	<i>ú<sup>nš</sup> bo</i>	<i>ú<sup>nš</sup> ba</i>	<i>ú<sup>nš</sup>t’i</i>
‘stamp, clap’	<i>č<sup>w</sup>árχ<sup>s</sup> bos</i>	<i>čurχ<sup>s</sup>ár</i>	<i>č<sup>w</sup>árχ<sup>s</sup> bo</i>	<i>č<sup>w</sup>árχ<sup>s</sup> ba</i>	<i>č<sup>w</sup>árχ<sup>s</sup>t’i</i>

Table 10: Ideophonic voluntary body noise verbs in Archi (data from Chumakina et al. 2007)

## 2.6. Non-body-related sound verbs

Sound verbs that do not involve any human or animal referent, given in Table 11, are nevertheless frequently formed with the light verb ‘say’. They are, of course, monovalent intransitives, with their sole argument in the nominative case, as in (ex. 56–58):

(56) *b-is dump č’ap:u.*  
 A-my ball(A) burst + say.PF  
 ‘My ball burst.’

(57) *kabk č’ap:u-li*  
 glass(N) crack + say.PF-EVID  
 ‘The glass (window) cracked.’

(58) *dunil-li-n qu-t’i č’ap-t’i i.*  
 sky-OBL-GEN thunder-MSD strike-MSD (N)COP  
 ‘The thunder resounded.’

	PF	IPF	INF	IMPER	MSD
‘squelch (water in boots)’	<i>wé’lč’ bos</i>	<i>wé’lč’ér</i>	<i>wé’lč’ bo</i>	<i>wé’lč’ ba</i>	<i>wé’lč’t’i</i>
‘eddy, babble, flow’ (spring)	<i>k’úrk’ur bos</i>	<i>k’úrk’ur war</i>	<i>k’úrk’ur bo</i>	<i>k’úrk’ur ba</i>	<i>k’úrk’urt’i</i>
‘drip’	<i>k’ent’ bos</i>	<i>k’ent’ér</i>	<i>k’ent’ bo</i>	<i>k’ent’ ba</i>	<i>k’entt’i</i>
‘burst, explode; shoot’	<i>č’ap:us</i>	<i>č’ap’ár</i>	<i>č’ap:u</i>	<i>č’ap:a</i>	<i>č’ap’t’i</i>
‘exchange fire’	<i>č’áp’-q’ap’ bos</i>	<i>č’áp’-q’ap’- bar</i>	<i>č’áp’-q’ap’- bo</i>	<i>č’áp’-q’ap’- ba</i>	<i>č’áp’-q’ap’t’i</i>
‘sizzle’	<i>č’l’ bos</i>	<i>č’akár</i>	<i>č’l’ bo</i>	<i>č’l’ ba</i>	<i>č’l’ bumul</i>
‘blow (trumpet)’	<i>dú’t’ bos</i>	<i>du’t’ár</i>	<i>dú’t’ bo</i>	<i>dú’t’ ba</i>	<i>dú’t’ bumul</i>

**Table 11:** Ideophonic non-body-related noise verbs in Archi (data from Chumakina et al. 2007)

### 3. Non-sound verbs

The use of the verb ‘say’ in Archi verb compounds extends far beyond the domain of speech and noises. This section deals with predicates denoting events and actions that are not primarily sounds, nor are they produced by the vocal tract.

#### 3.1. Ingestion verbs

Ideophonic compounds cover all the range of ingestion verbs, given in Table 12, including two verbs for ‘drink’ (cold vs hot drinks), with the exception of the two Archi verbs for ‘eat’ (for which see section 9). Digestion verbs are transitive (ex. 59–64):

(59) *zari semečka čʷečʰə bo.*

1.ERG seed(A) nibble say.PF

‘I nibbled on sunflower seeds.’

(60) *laha gon-nor lamar-ši i.*

child.ERG finger-PL.NOM lick + say.IPF-CV (M)COP

‘The child licks its fingers.’

(61) *b-olo gʷači-li lekri bʰemʰer.*

HPL-1.PL.GEN dog-ERG bone(N) gnaw + say.IPF

‘Our dog is gnawing at the bone.’

(62) *zari ak:ommiš čij χ:ur.*

1.ERG dawn.DAT tea(N) drink + say.IPF

‘In the morning I drink tea.’

(63) *zari lap izu-t diqʰ χ:ubu.*

1.ERG very tasty.ATTR-N soup(N) drink + say.PF

‘I had some very nice soup.’

- (64) *χ:élemi-s*            *harak*    *diq'*            *χurk'ar-gi!*  
 guest.OBL.PL-DAT    in\_front    soup(N)    slurp.say.IPF-PROHIB  
 'Do not slurp your soup when guests are around.'

	PF	IPF	INF	IMPER	MSD
'gorge'	<i>šá'mmus</i>	<i>ša'má'r</i>	<i>šá'mmu</i>	<i>šá'mma</i>	<i>šá'mšmul</i>
'eat food made of <i>dac'on</i> '	<i>χ:áχ:u bos</i>	<i>χ:áχ:or</i>	<i>χ:áχ:u bo</i>	<i>χ:áχ:u ba</i>	<i>χ:áχ:u bumul</i>
'gnaw' (dogs)	<i>β'éμβ'ə bos</i>	<i>β'éμβ'er</i>	<i>β'éμβ'ə bo</i>	<i>β'éμβ'ə ba</i>	<i>β'éμβ'ət'i</i>
'overeat (animals), glut (people)'	<i>t'ént'ə bos</i>	<i>t'ént'er</i>	<i>t'ént'ə bo</i>	<i>t'ént'ə ba</i>	<i>t'ént'ə bumul</i>
'nibble'	<i>č'w'éč'ə bos</i>	<i>č'w'eč'er</i>	<i>č'w'éč'ə bo</i>	<i>č'w'éč'ə ba</i>	<i>č'w'éč'ə bumul</i>
'chew'	<i>č'á'mmus</i>	<i>č'a'má'r</i>	<i>č'á'mmu</i>	<i>č'á'mma</i>	<i>č'á'mt'i</i>
'champ, chew with open mouth'	<i>č'ú'w bos</i>	<i>č'ú'w war</i>	<i>č'ú'w bo</i>	<i>č'ú'w ba</i>	<i>č'ú'wt'i</i>
'eat too little, unwillingly'	<i>sém bos</i>	<i>sém war</i>	<i>sém bo</i>	<i>sém ba</i>	<i>sémt'i</i>
'swallow without chewing'	<i>gúrq'<sup>s</sup> bos</i>	<i>gurq'<sup>s</sup>ár</i>	<i>gúrq'<sup>s</sup> bo</i>	<i>gúrq'<sup>s</sup> ba</i>	<i>gúrq'<sup>s</sup>t'i</i>
'graze'	<i>há'nč' bos</i>	<i>ha'nč'ár</i>	<i>há'nč' bo</i>	<i>há'nč' ba</i>	<i>há'nč't'i</i>
'lick'	<i>lammus</i>	<i>lamár</i>	<i>lámmu</i>	<i>lámma</i>	<i>lámmul</i>
'lick clean' (plates)	<i>čák' bos</i>	<i>čak'ár</i>	<i>čák' bo</i>	<i>čák' ba</i>	<i>čák't'i</i>
'slurp'	<i>χ:úrk' bos</i>	<i>χ:urk'ár</i>	<i>χ:úrk' bo</i>	<i>χ:úrk' ba</i>	<i>χ:úrk't'i</i>
'sip smth hot'	<i>χ:úbus</i>	<i>χ:ur</i>	<i>χ:úbu</i>	<i>χ:úba</i>	<i>χ:út'i</i>
'drink (cold)'	<i>c'ábus</i>	<i>c'ár</i>	<i>c'ábu</i>	<i>c'á ba</i>	<i>c'át'i</i>

**Table 12:** Ideophonic ingestion verbs in Archi (data from Chumakina et al. 2007)

### 3.2. Sensation verbs

Archi verbs denoting non-auditive sensations are also ideophonic compounds. The compound verbs for ‘smell’, given in Table 13, are ambitransitive (ex. 65):

(65) *a. s:unt’ bo-li ha<sup>h</sup>mp bo-li.*  
 smell say.PF-CV bark say.PF-CV  
 ‘sniffing and barking’

*b. zari t’e<sup>s</sup>-tu s:unt’ bo.*  
 1.ERG flower-PL.NOM smell say.PF  
 ‘I smelled the flowers.’

Meanwhile all other verbs of this semantic class are intransitive (ex. 66–74):

(66) *dunil wak’ bo-li dati.*  
 sky(N) clear say.PF-CV clear.PF  
 ‘The sky cleared.’

(67) *dunil par bo.*  
 sky(N) flash say.PF  
 ‘Lightning flashed (lit. ‘the sky flashed’).’

(68) *oc’ pirχ bo.*  
 fire(N) blaze say.PF  
 ‘The fire blazed up.’

(69) *χ:<sup>w</sup>alli pirχ bo.*  
 bread(A) blaze say.PF  
 ‘The bread is slightly burnt.’

(70) *is aq guk:or-ši i.*  
 (N)my foot(N) itch.say.IPF-CV (N)COP  
 ‘My foot is itching.’



(71) *is aq c'urar-ši i.*  
 (N)my foot(N) ache.say.IPF-CV COP.N  
 'My leg aches.'

(72) *s:ol lah bo-li imc:'-i-s:-u*  
 fox(NOM) hunger say.PF-EVID honey-OBL-DAT-AND  
*inχ:-i-s:-u χir.*  
 butter-OBL-DAT-AND behind  
 'The fox was craving for (lit. behind) more honey and butter.'

(73) *zon ja-t ari a-s ħuč' bo.*  
 1SG.NOM PROX-N work(N) (N)do-INF be.lazy say.PF  
 'I was too lazy to do this job.'

(74) *jas:ana uχ k'ij bo-li.*  
 this.year field(N) overripe say.PF-CV  
 'This year our wheat was overripe...'

	PF	IPF	INF	IMPER	MSD
'smell'	<i>súnt' bos</i>	<i>sunt'ar</i>	<i>súnt' bo</i>	<i>súnt' ba</i>	<i>súntt'i</i>
'smoke; smell'	<i>p'áh bos</i>	<i>p'ahár</i>	<i>p'áh bo</i>	<i>p'áh ba</i>	<i>p'áht'i</i>
'itch'	<i>χ<sup>ws</sup>ár bos</i>	<i>χ<sup>i</sup>urár</i>	<i>χ<sup>ws</sup>ár bo</i>	<i>χ<sup>ws</sup>ár ba</i>	<i>χ<sup>ws</sup>árt'i</i>
'be overdone' (meat)	<i>túr bos</i>	<i>turár</i>	<i>túr bo</i>	<i>túr ba</i>	<i>túr bumul</i>
'become sour'	<i>q'ánc' bos</i>	<i>q'anc'ár</i>	<i>q'ánc' bo</i>	<i>q'ánc' ba</i>	<i>q'ánc't'i</i>
'ache'	<i>c'úk' bos</i>	<i>c'úk' war</i>	<i>c'úk' bo</i>	<i>c'úk' ba</i>	<i>c'úk' bumul</i>
'throb (pain)'	<i>wá'rt bos</i>	<i>wa'rtár</i>	<i>wá'rt bo</i>	<i>wá'rt ba</i>	<i>wá'rt bumul</i>
'want to eat smth'	<i>láhbos</i>	<i>lahár</i>	<i>láhbo</i>	<i>láhba</i>	<i>láht'i</i>
'be lazy, not hungry'	<i>ħúč' bos</i>	<i>ħúč' war</i>	<i>ħúč' bo</i>	<i>ħúč' ba</i>	<i>ħúč't'i</i>

Table 13: Sample of deophonic sensation verbs in Archi  
 (data from Chumakina et al. 2007)

### 3.3. Intransitive movement verbs

Many intransitive movement verbs, as those given in Table 14, expressed by ideophonic compounds have inanimate subjects, as in (ex. 75–83):

- (75) *bejraq parar-ši i.*  
 flag(N) fly + say.IPF-CV (N)COP  
 ‘The flag is flying.’
- (76) *ha<sup>h</sup>təra čax<sup>h</sup>:ar-ši i.*  
 river(N) flow.say.IPF-CV (N)COP  
 ‘The river flows.’
- (77) *dump gugo:bo.*  
 ball(a) roll + say.pf  
 ‘The ball rolled (away).’
- (78) *harq čax<sup>h</sup>:ar.*  
 roof(N) leak.say.IPF  
 ‘The roof leaks.’
- (79) *deq<sup>h</sup> čirχ<sup>h</sup> bo-li.*  
 road(A) collapse say.PF-CV  
 ‘The road was washed away...’
- (80) *mišin-ni-t da<sup>h</sup>nka<sup>h</sup>r-ši i.*  
 car-OBL-SUPER shake.say.IPF-CV (N)COP  
 ‘The car is shaking.’
- (81) *nok<sup>h</sup> dimmu.*  
 house(N)(NOM) collapse + say.PF  
 ‘The house got destroyed.’
- (82) *sot ga<sup>h</sup>rtar-ši i.*  
 tooth(N) be.loose.say.IPF-CV (N)COP  
 ‘The tooth is loose.’

- (83) *to-w-mu-n*      *aq*      *q<sup>s</sup>art'*      *bo-li*  
 DIST-M-OBL-GEN    foot(N)    dislocate    say.PF-CV  
 'He dislocated his foot.'

However, animal (ex. 84 and 85) or human subjects (ex. 86–94) are also well represented:

- (84) *no<sup>s</sup>š*      *pars*      *bo.*  
 horse(A)    start    say.PF  
 'The horse gave a start (in fright).'

- (85) *parχ*    *bo-li*      *oq<sup>a</sup>-li*      *noc'*      *laha-rak.*  
 fly    say.PF-CV    (N)leave.PF-CV    bird(N)    child.OBL-CONTLAT  
 'The bird flew to the child.'

- (86) *nen*      *dimmu-li*      *nołdorčej-ši*      *oq<sup>a</sup>.*  
 1.PL.NOM.EXCL    disperse.say.PF-CV    house.PL.IN-ALL    leave.PF.1.PL  
 'We went off to our homes.'

- (87) *olo*      *lo*      *sanna*      *łurχ<sup>s</sup>ar-ši-t'aw*      *i-t'u.*  
 (N)our    child(N)    so.far    crawl.say.IPF-CV-NEG.CV    (N)COP-NEG  
 'Our child is still only crawling (lit. is not yet not crawling).'

- (88) *zon*      *akrommis*      *duwraz-l-a*      *t'inna*      *qecšec*      *bo.*  
 1SG.NOM    dawn.DAT    gate-OBL-IN    a.little    walk    say.PF  
 'I walked a bit in the yard this morning.'

- (89) *zon*      *qer-ši*      *w-i.*  
 1SG.NOM    dance.say.IPF-CV    M-COP  
 'I am dancing.'

- (90) *duχ:ul-li-t:i-k*      *askar*      *t'ank' + bo-li.*  
 village-OBL-SUPER-LAT    squad    jumpsay.PF-EVID  
 'A squad had attacked the village.'

- (91) *un os t'inna t'irk' ba!*  
 2SG.nom one a.little speed.up say.IMPER  
 'Speed up a bit, we will be late.'

- (92) *mu-ši q'owq'i žular-gi!*  
 fine-ADV sit.M.IMPER fidget.say.IPF-PROHIB  
 'Sit still, don't fidget!'

- (93) *imi-ši eši dur bo-li q<sup>w</sup>ali*  
 there-ALL here walk.fast say.PF-CV (M)COME.PF-EVID  
 'He came here from over there walking fast.'

- (94) *dija q'or-če-łtu kušar-ši w-i.*  
 father(NOM) book.PL-OBL.PL-COM rummage.IPF-CV M-COP  
 'Father is rummaging through books.'

	PF	IPF	INF	IMPER	MSD
'fidget, swarm'	<i>ž<sup>w</sup>ál bos</i>	<i>žulár</i>	<i>ž<sup>w</sup>ál bo</i>	<i>ž<sup>w</sup>ál ba</i>	<i>ž<sup>w</sup>ált'i</i>
'crash, plump'	<i>wá'p' bos</i>	<i>wá'p' war</i>	<i>wá'p' bo</i>	<i>wá'p' ba</i>	<i>wá'p bumul</i>
'be loose' (tooth)	<i>gá<sup>r</sup>rtbos</i>	<i>ga<sup>r</sup>rtá<sup>r</sup></i>	<i>gá<sup>r</sup>rtbo</i>	<i>gá<sup>r</sup>rtba</i>	<i>gá<sup>r</sup>rtbumul</i>
'roll out'	<i>gér<sup>g</sup>i bos</i>	<i>gér<sup>g</sup>er</i>	<i>gér<sup>g</sup>ibo</i>	<i>gér<sup>g</sup>i ba</i>	<i>gér<sup>g</sup>i bumul</i>
'rock' (cot)	<i>gér<sup>k</sup>:ibos</i>	<i>gér<sup>k</sup>:er</i>	<i>gér<sup>k</sup>:ibo</i>	<i>gér<sup>k</sup>:i ba</i>	<i>gér<sup>k</sup>:ə bumul</i>
'go curly' (hair)	<i>k'é<sup>r</sup>k'ə bos</i>	<i>k'é<sup>r</sup>k'er</i>	<i>k'é<sup>r</sup>k'ə bo</i>	<i>k'é<sup>r</sup>k'ə ba</i>	<i>k'é<sup>r</sup>k'ət'i</i>
'come apart' (hay; road)	<i>čír<sup>χ</sup> bos</i>	<i>čír<sup>χ</sup> war</i>	<i>čír<sup>χ</sup> bo</i>	<i>čír<sup>χ</sup> ba</i>	<i>čír<sup>χ</sup> bumul</i>
'get stuck in marshy soil'	<i>pú<sup>r</sup>š bos</i>	<i>pu<sup>r</sup>šá<sup>r</sup></i>	<i>pú<sup>r</sup>š bo</i>	<i>pú<sup>r</sup>š ba</i>	<i>pú<sup>r</sup>š bumul</i>
'dance'	<i>qébus</i>	<i>qer</i>	<i>qébu</i>	<i>qé ba</i>	<i>qét'i</i>
'jump'	<i>t'ánk' bos</i>	<i>t'ánk'ár</i>	<i>t'ánk' bo</i>	<i>t'ánk' ba</i>	<i>t'ánk't'i</i>
'crawl'	<i>łúr<sup>χ</sup> bos</i>	<i>łur<sup>χ</sup>ár</i>	<i>łúr<sup>χ</sup> bo</i>	<i>łúr<sup>χ</sup> ba</i>	<i>łúr<sup>χ</sup>t'i</i>
'shuffle one's feet'	<i>łér<sup>χ</sup> bos</i>	<i>łur<sup>χ</sup>:ár</i>	<i>łér<sup>χ</sup> bo</i>	<i>łér<sup>χ</sup> ba</i>	<i>łur<sup>χ</sup>t'i</i>
'fly'	<i>pár<sup>χ</sup> bos</i>	<i>par<sup>χ</sup>:ár</i>	<i>pár<sup>χ</sup> bo</i>	<i>pár<sup>χ</sup> ba</i>	<i>pár<sup>χ</sup>t'i</i>

**Table 14.** Sample of ideophonic intransitive movement verbs in Archi  
 (data from Chumakina et al. 2007)

### 3.4. Posture and attitude verbs

A small class of intransitives denote a change of state or a stative predicate (cf. Table 15, and ex. 95–100):

- (95) *to-w*      *q'ač'-bo-tu-b*                      *kuc*      *b-aku-ra?*  
 DIST-M      dress.up-say.PF-ATTR-A      way(A)      A-see.PF-Q  
 'Can you see the way he dressed up?'

- (96) *q<sup>w</sup>at'i-li-tiš*      *kł'ara:ši*      *ja<sup>t</sup>'i*      *gerk:er-ši*                      *b-i.*  
 tree-OBL-SUPEREL      down.there      snake(A)      hang.over + SAY.IPF-CV      A-COP  
 'A snake is hanging down from the tree.'

- (97) *zon*      *t'inna*      *k'ur + bo-li*      *erdi.*  
 1SG.NOM      a.little      lay + say.PF-CV      F.BE.PST  
 'I lay down for a short while.'

- (98) *ja-t*      *lo*      *k'ur + war-ši*      *i-t'u.*  
 PROX-N      child(N)      sleep + say.IPF-CV      (N)COP-NEG  
 'This child does not go to sleep easily.'

- (99) *wa-ł:ut:-ib*                      *halmaχ-til*      *q'ač + bo-na*                      *b-erq<sup>ε</sup>-u-qi.*  
 2.OBL-COM-ATTR.PL      friend-PL      array + say.PF-CV      HPL-walk-PF-FUT  
 'Your friends will go dressed up.'

- (100) *to-w*      *muq<sup>ε</sup>u*      *lobur-če-łu*                      *q'ec'er.*  
 DIST-M      small      child.PL-OBL.PL-COM      nag + say.IPF  
 'He nags little children.'

	PF	IPF	INF	IMPER	MSD
'fall asleep'	<i>k'úr k'ur bos</i>	<i>k'úr k'ur war</i>	<i>k'úr k'ur bo</i>	<i>k'úr k'ur ba</i>	<i>k'úr k'ur t'i</i>
'take a nap'	<i>k'úr bos</i>	<i>k'urár</i>	<i>k'úr bo</i>	<i>k'úr ba</i>	<i>k'úr t'i</i>
'measure one's strength with smb'	<i>qat' bos</i>	<i>qat' war</i>	<i>qat' bo</i>	<i>qat' ba</i>	<i>qat' bumul</i>
'dress up'	<i>q'áč' bos</i>	<i>q'áč'ár</i>	<i>q'áč' bo</i>	<i>q'áč' ba</i>	<i>q'áč' t'i</i>
'have doubts'	<i>wás bos</i>	<i>wasár</i>	<i>wás bo</i>	<i>wás ba</i>	<i>wás bumul</i>
'nag, bother'	<i>q'éc' bos</i>	<i>q'éc'er</i>	<i>q'éc' bo</i>	<i>q'éc' ba</i>	<i>q'éc' t'i</i>

**Table 15.** Ideophonic posture and attitude verbs in Archi  
(data from Chumakina et al. 2007)

### 3.5. Transitive movement verbs

Some compound verbs of motion are ambitransitive and can also have an agent in the ergative (ex. 101 and 102) (Table 16):

(101) a. *budraš na'kɬ' č'warɰ' bo.*  
 bucket.INEL milk(N) pour say.PF  
 'The milk poured out of the bucket.'

b. *zari ɬan č'warɰ' bo.*  
 1.ERG water(N) pour say.PF  
 'I poured the water out.'

(102) a. *χeme-r-ši bo χara:ši daɰ bo-li.*  
 woman.OBL.PL-CONT-ALL say.PF after turn say.PF-CV  
 'She said to the women, having turned back...'

b. *zari ɰaterte-q'a-k buɰ'i daɰ bo-qi.*  
 1SG.ERG cattle-OBL-INTER-LAT cow.PL.NOM drive say.PF-FUT  
 'I will drive the cows to the herd.'

c. *q'amatu eši tenši daɰ bo-li.*  
 hair(N) here there tousle say.PF-CV  
 '(She) tousled (her) hair.'

Other verbs are strictly transitive (ex. 103–106), although the agent can be left out (ex. 107–109) or be in the nominative case in (ex. 110), which is a case of ‘binominative construction’ denoting a continuous activity<sup>3</sup>:

- (103) *zari dump χ<sup>s</sup>ološi lapu.*  
 1.ERG ball(A) upwards throw.say.PF  
 ‘I threw the ball upwards.’
- (104) *zari q<sup>r</sup>art<sup>i</sup>-li χ<sup>w</sup>alli gergi bo.*  
 1.ERG pin-ERG bread(A) roll.out say.PF  
 ‘I rolled out bread with a rolling pin.’
- (105) *zari to-w ba<sup>s</sup>re-q<sup>a</sup>-k χit’ bo.*  
 1.ERG DIST-M lake.OBL-INTER-LAT push say.PF  
 ‘I pushed him into the lake.’
- (106) *doba-mu tung-li-tu oł tarχ:ar-ši i*  
 granny-ERG spindle-OBL-COM wool(N) twist.IPF-CV COP(N)  
*imkł’el-lur-če-s.*  
 sock-PL-PL.OBL-DAT  
 ‘The grandmother twists a woollen thread with a spindle to knit socks.’
- (107) *č’ut zerzer-gi!*  
 jug(N) fill.say.IPF-PROHIB  
 ‘Do not fill the jug to the brim.’
- (108) *olo duχriq<sup>a</sup>-š os lo χapu-li.*  
 (N)our village.SG.INTER-EL one child(F) kidnap.say.PF-CV  
 ‘Once a girl was kidnapped from our village.’
- (109) *č’abu dere bo-mχur*  
 sheep.PL separate.lambs say.PF-TEMP2  
 ‘when the ewes were separated from the lambs’

<sup>3</sup> For binominative, aka biabsolutive, constructions, cf. Chumakina and Bond (2016).

- (110) *to-r misgin eqiša kelkan č'eᵑp*  
 DIST-F poor at.night until cot(A)  
*gerkir-ši erdi.*  
 rock.say.IPF-CV F.BE.PST  
 'She was rocking the cot until the evening, poor thing.'

	PF	IPF	INF	IMPER	MSD
'turn, squeeze'	<i>q<sup>w</sup>éraq'ə bos</i>	<i>q<sup>w</sup>éraq'er</i>	<i>q<sup>w</sup>éraq'əbo</i>	<i>q<sup>w</sup>éraq'ə ba</i>	<i>q<sup>w</sup>éraq'ət'i</i>
'jam, crush, squash'	<i>ɓúrkɩ' bos</i>	<i>ɓurkɩ'ár</i>	<i>ɓúrkɩ' bo</i>	<i>ɓúrkɩ' ba</i>	<i>ɓúrkɩ't'i</i>
'push, cram, stuff in'	<i>š<sup>w</sup>élš:i bos</i>	<i>š<sup>w</sup>élš:ér</i>	<i>š<sup>w</sup>élš:i bo</i>	<i>š<sup>w</sup>élš:i ba</i>	<i>š<sup>w</sup>élš:i bumul</i>
'dig, take off a layer'	<i>qért' bos</i>	<i>qért'er</i>	<i>qért' bo</i>	<i>qért' ba</i>	<i>qértt'i</i>

Table 16. Sample of ideophonic transitive movement verbs in Archi  
 (data from Chumakina et al. 2007)

### 3.6. Other transitive action verbs

Among other transitive action verbs involving the light verb 'say', most can be conceived of as associated with a sound (cf. Table 17, ex. 111) or a movement (ex. 112 and 113):

- (111) *ert:i-ttur laha raɣ a<sup>r</sup>qu<sup>r</sup>/.*  
 F.become.PF-ATTR.F child.ERG clay break.say.IPF  
*evt:i-ttu laha daʎ' q<sup>w</sup>ank' war.*  
 M.become.PF-ATTR child.ERG door slam say.IPF  
 'A grown daughter breaks the dishes, a grown son slams the door.'

- (112) *χ<sup>w</sup>ak:a nen χ:uχ:ət'iki-li q<sup>w</sup>at'i χ:uχ:u bo.*  
 forest.IN 1.PL.EXCL.NOM saw-ERGt ree(A) saw say.PF  
 'We cut down a tree in a forest with a saw.'



- (113) *dija-mu k'as:a is kart'i x:art' bo.*  
 father-ERG knife.ERG (N)my head(N) shave say.PF  
 'Father shaved my head with his knife.'

	PF	IPF	INF	IMPER	MSD
'saw'	<i>x:úχ:u bos</i>	<i>x:úχ:or</i>	<i>x:úχ:u bo</i>	<i>x:úχ:u ba</i>	<i>x:úχ:u bumul</i>
'shave'	<i>x:árt' bos</i>	<i>x:art'ár</i>	<i>x:árt' bo</i>	<i>x:árt' ba</i>	<i>x:árt' bumul</i>
'sew with short stitches'	<i>qúc bos</i>	<i>qúc war</i>	<i>qúc bo</i>	<i>qúc ba</i>	<i>qúc bumul</i>
'twist wool'	<i>tárχ bos</i>	<i>tarχ:ár</i>	<i>tárχbo</i>	<i>tárχba</i>	<i>tárχt'i</i>
'spin' (thread, wool)	<i>qénz bos</i>	<i>qénzer</i>	<i>qénz bo</i>	<i>qénz ba</i>	<i>qénzt'i</i>
'comb threads while weaving'	<i>χ<sup>w</sup>it' bós</i>	<i>χ<sup>w</sup>it' war</i>	<i>χ<sup>w</sup>it' bó</i>	<i>χ<sup>w</sup>it' bá</i>	<i>χ<sup>w</sup>itt'i</i>
'shear sheep, trim hair'	<i>q'énc' bos</i>	<i>q'enc'ér</i>	<i>q'énc' bo</i>	<i>q'énc' ba</i>	<i>q'énc't'i</i>
'cut' (grass)	<i>β<sup>s</sup>áz bos</i>	<i>β<sup>s</sup>azár</i>	<i>β<sup>s</sup>áz bo</i>	<i>β<sup>s</sup>áz ba</i>	<i>β<sup>s</sup>ázt'i</i>
'break (crockery)'	<i>βérβə bos</i>	<i>βerβér</i>	<i>βérβə bo</i>	<i>βérβə ba</i>	<i>βérβət'i</i>
'hew, grind smooth'	<i>pálc' bos</i>	<i>palc'ár</i>	<i>pálc' bo</i>	<i>pálc' ba</i>	<i>pálc't'i</i>
'roast grain'	<i>sése bos</i>	<i>séser</i>	<i>sése bo</i>	<i>sése ba</i>	<i>séset'i</i>
'rub hard (clothes)'	<i>β<sup>s</sup>úž bos</i>	<i>β<sup>s</sup>úž war</i>	<i>β<sup>s</sup>úž bo</i>	<i>β<sup>s</sup>úž ba</i>	<i>β<sup>s</sup>úž bumul</i>
'knock'	<i>dárq bos</i>	<i>darqár</i>	<i>dárq bo</i>	<i>dárq ba</i>	<i>darqt'i</i>
'pinch'	<i>q<sup>s</sup>ént' bos</i>	<i>q<sup>s</sup>ént'er</i>	<i>q<sup>s</sup>ént' bo</i>	<i>q<sup>s</sup>ént' ba</i>	<i>q<sup>s</sup>ént' bumul</i>
'stew (nettle); sputter'	<i>pút bos</i>	<i>putár</i>	<i>pút bo</i>	<i>pút ba</i>	<i>pútt'i</i>
'plough'	<i>híj bos</i>	<i>hijár/hejár</i>	<i>híj bo</i>	<i>híj ba</i>	<i>híjt'i</i>
'wash (oneself or clothes)'	<i>čúčə bos</i>	<i>čúčor</i>	<i>čúčə bo</i>	<i>čúčə ba</i>	<i>čúčət'i</i>

**Table 17.** Ideophonic transitive action verbs in Archi  
 (data from Chumakina et al. 2007)

However, the origin of the coverbs contained in most of these compounds is not clearly ideophonic, and some may indeed have a different origin, like a coverbal form of a

basic intransitive verb used transitively<sup>4</sup> or in causative periphrasis. This is certainly the case for *gúkə bos* ‘scratch, to itch’, whose cognate in Kryz is the simplex verb *gugayc* ‘itch’, forming the causative compound *gugara aric* ‘scratch’, and of *š:ʷélš:i bos* ‘stuff, cram’, a reduplicated form which in related languages has cognate simplex verbs based on a root *š:ʷ-*.

Still some other verbs, like *pút bos* ‘stew (nettle) < ‘sputter’ or *s:ús:e bos* ‘smear’, seem clearly ideophonic, and at least the verb *hij bos* ‘plough’ appears to derive from a construction denoting a speech act. Indeed, besides the construction where the object of this verb is ‘the field’ (ex. 114a and 114b), the texts feature cases where it seems to be constructed with draught animals as the object (ex. 115; these examples are taken from the Archi text corpus, Arkhipov et al. 2007):

- (114) a. *nen*                      *ʔanna-t*                      *uχ*                      *hejar.*  
 1.PL.NOM.EXCL    spring.OBL-SUPER    field(N)    plough.say.IPF  
 ‘We plough our field in the spring.’

- b. *uχ*            *hij*            *ba!*  
 field    plough    say.IMPER  
 ‘Plough the field!’

- (115) *imi-š*            *eš:i*            *hij*            *bo-li*            *uns-ur...*  
 there-EL            here.to            “hey !”            say.PF-CV    bull-PL  
 ‘From there, having driven / \*ploughed the oxen here...’

The explanation for this unusual behaviour is provided by external comparison, as a related periphrastic construction is found in Kryz, where the verb ‘do’ is used instead of ‘say’ as a light verb. In Kryz, *haj aridž* means ‘send, let go’. In both languages, the compound contains the exclamative *haj*, used primarily to hurry up large cattle and horses. However, while in Kryz the derived meaning extends by including the horse driver as the object, in Archi the animate object (the oxen) can be left out and the resulting intransitive verb ‘drive’ is understood as ‘plough’ and can therefore take a new, inanimate object (the field).

---

<sup>4</sup> The important and difficult question of labile verbs, a.k.a ambitransitives, remains to be studied in Archi as well as in most languages of its family.

#### 4. The phonetic structure of ideophonic compounds

Ideophonic compounds show some interesting morphonological processes and phonotactic features.

##### 4.1. Morphology of ‘say’ as a light verb

The light verb part of ideophonic compounds can be affected in various ways. Seven configurations can be distinguished based on the distribution of surface forms of the light verb:

- the verb ‘say’ remains intact in all principal parts of the compound;
- the verb ‘say’ remains intact in all principal parts of the compound except for the masdar, which takes the suffix borrowed from Lak (*-t’i*, instead of *bumul*);
- the verb ‘say’ remains intact in all principal parts except the imperfective;
- the verb ‘say’ surfaces as a suffix *-bus* in the infinitive;
- the verb ‘say’ surfaces as a suffix *-bus* in the infinitive, and the imperfective is modified;
- the verb ‘say’ surfaces as a suffix *-bus* in the infinitive, the imperfective is modified and the masdar is in *-t’i*;
- the verb ‘say’ surfaces as a suffix *-mus* in the infinitive.

These types are illustrated in Table 18, arranged from phonetically most stable to most divergent:

	PF	IPF	INF	IMPER	MSD
‘buzz’	<i>zíz bos</i>	<i>zíz war</i>	<i>zíz bo</i>	<i>zíz ba</i>	<i>zíz bumul</i>
‘grumble, mumble’	<i>búr<sup>ʒ</sup>ur bos</i>	<i>búr<sup>ʒ</sup>ur war</i>	<i>búr<sup>ʒ</sup>ur bo</i>	<i>búr<sup>ʒ</sup>ur ba</i>	<b><i>búr<sup>ʒ</sup>urt’i</i></b>
‘drizzle’	<i>c’éc’ bos</i>	<i>c’éc’er</i>	<i>c’éc’ bo</i>	<i>c’éc’ ba</i>	<i>c’éc’ə bumul</i>
‘bray’	<i>hó’ʔ bos</i>	<i>ha’ʔár</i>	<i>hó’ʔ bo</i>	<i>hó’ʔ ba</i>	<b><i>hó’ʔt’i</i></b>
‘growl’	<i>ħúbus</i>	<i>ħur</i>	<i>ħúbu</i>	<i>ħú ba</i>	<b><i>ħút’i</i></b>
‘gorge’	<i>šá<sup>s</sup>mmus</i>	<i>ša<sup>s</sup>má<sup>r</sup></i>	<i>šá<sup>s</sup>mmu</i>	<i>šá<sup>s</sup>mma</i>	<i>šá<sup>s</sup>mšmul</i>
‘cry’	<i>é<sup>s</sup>mmus</i>	<i>é<sup>s</sup>mmur</i>	<i>é<sup>s</sup>mmu</i>	<i>é<sup>s</sup>mma</i>	<b><i>é<sup>s</sup>mt’i</i></b>

**Table 18.** Phonetic shift gradient in Archi ideophonic compounds  
(data from Chumakina et al. 2007)

These phonetic changes are observed in all semantic subcategories of ideophonic compounds, with no apparent functional correlations. For the morphemic variant *t'i*, which is a Lak borrowing, no clear motivation was found.

#### 4.2. Phonotactics of ideophonic coverbs

The phonetic structure of ideophonic coverbs is monosyllabic and conforms to any possible syllable template of Archi nouns, i.e. involving no initial clusters and no occlusive clusters. By far the most frequent template is CVC, as illustrated in Table 19:

<i>báʔ bos</i>	'kiss'	<i>pár bos</i>	'stream, fly'
<i>čř bos</i>	'sizzle'	<i>q'éc' bos</i>	'nag, bother'
<i>hóʔ bos</i>	'bray'	<i>qíp:us</i>	'defecate'
<i>k'ij bos</i>	'overripen (wheat)'	<i>qúc bos</i>	'sew with short stitches'
<i>k'úr bos</i>	'take a nap'	<i>χ<sup>w</sup>ár bos</i>	'itch'
<i>kúr bos</i>	'rub; rub oneself'	<i>χ<sup>w</sup>it' bós</i>	'comb threads while weaving'

Table 19. Some CVC Archi ideophonic coverbs  
(data from Chumakina et al. 2007)

The second most frequent template is CVRC (Table 20):

<i>bú'rt' bos</i>	'rock' (baby); 'eat one's fill'	<i>łérχ<sup>s</sup> bos</i>	'shuffle one's feet (people)'
<i>č'é'nt' bos</i>	'squeeze, milk slowly; spit through one's teeth'	<i>ní'w bos</i>	'meow'
<i>č<sup>w</sup>árχ<sup>s</sup> bos</i>	'stamp, clap'	<i>q<sup>w</sup>ank' bos</i>	'slam' (door)
<i>dá'nk bos</i>	'pulse' (heart)	<i>žír q bos</i>	'brag'
<i>dá'nk bos</i>	'be shaken, shake'	<i>gúr q<sup>s</sup> bos</i>	'swallow without chewing'
<i>dár q bos</i>	'knock'	<i>há'nč' bos</i>	'graze'
<i>gá'rt bos</i>	'be loose' (tooth)	<i>χ:úrk' bos</i>	'slurp'
<i>ha'mp bos</i>	'bark'	<i>súnt' bos</i>	'smell'
<i>łáls bos</i>	'stammer'	<i>zímł bos</i>	'break out in a rash'
		<i>zám q' bos</i>	'become very cold (weather)'

Table 20. Some CVRC Archi ideophonic coverbs  
(data from Chumakina et al. 2007)

Other existing templates are shown in Table 21:

CV	<i>q'ėbus</i>	'butt; stick in, thrust'		<i>uħú bos</i>	'cough'
	<i>c'ábus</i>	'drink (cold)'	CVCV	<i>hačá bos</i>	'carry on one's back'
VC	<i>áχ bos</i>	'clear throat and spit'		<i>deré bos</i>	'separate lambs'
	<i>úw bos</i>	'howl'	VRC	<i>ú'nš bos</i>	'blow one's nose'
VCV	<i>úrt'u bos</i>	'refuse'	CVCVR	<i>dítan bos</i>	'caress' (a child)

**Table 21.** Some Archi ideophonic coverbs with untypical templates  
(data from Chumakina et al. 2007)

The remaining templates are cases of reduplication or borrowed words.

### 4.3. Reduplication

A restricted number of Archi ideophones involve reduplication and exhibit a range of different shapes, as can be seen in Table 22:

CVC	<i>c'éc' bos</i>	'drizzle'
	<i>víx bos</i>	'moo, bellow'
CVCV	<i>ħiħi bos</i>	'whinny'
	<i>sú:se bos</i>	'coat, smear'
CVRCV	<i>t'ént'ə bos</i>	'overeat (animals), glut (people)'
	<i>gérgi bos</i>	'roll out'
CVRCVR	<i>k'úrk'ur bos</i>	'purl, babble, flow' (spring); 'fall asleep'
	<i>dúmɛum bos</i>	'mumble, grumble'
others	<i>šp̣q'ip bos</i>	'hurry sheep up'
	<i>urí'ʔiʔu' bos</i>	'crow (rooster)'

**Table 22.** Some Archi ideophonic coverbs with reduplication  
(data from Chumakina et al. 2007)

## 5. Derivaton from ideophonic verbs

Ideophones acquire, via the light verb 'say', the ability to form lexicalized participles, as well as a few causatives or pseudo-causatives.

### 5.1. Ideophonic adjectives from participles

In principle, any ideophonic verb can form (perfective) participles by adding attributive endings to the stem. For instance, the concrete, originally ideophonic meaning of *áʔ bos* ‘invite’ is preserved in its derivate *áʔbotut*, which means not only ‘invited’ but also ‘loud’. As for *qʔɪ́ bos* ‘cry’, its derivate *qʔɪ́botut* possesses only the meaning ‘loud’. There are instances where the participle is in fact more common than the verb. This seems to be the case of *kʔérkəbotut* ‘curly’, more common than the verb *kʔérkʔə bos* ‘go curly’, which probably only exists as a variant of *kʔúrkʔur bos* ‘eddy, swirl, babble, flow’. The case of *ɪ́rkɪ́botut* ‘thick’, derivate of *ɪ́rkɪ́ bos* ‘crowd, get squeezed, jammed’, is similar, as the adjective is derived from the compound and not from the ideophone.

Some adjectives, like *qʔánkbotu-* ‘grown up, adult (women)’ or *wáɪ́botut* ‘clear, articulate’, are obviously derived from some ideophonic compound which seems to be no longer in use.

### 5.2. Ideophonic causatives and pseudo-causatives

Only a few intransitive ideophonic verbs have a regular transitivizing (causative) construction with the auxiliary ‘do’. One of the verbs for ‘drink’ also uses this auxiliary to increase its valency by a secondary agent. Such pairs are shown in Table 23:

<i>čʔírqʔ bos</i>	‘dislocate; crack (knuckles)’	<i>čʔírqʔbos as</i>	‘make crack’ (knuckles)
<i>dím̩mus</i>	‘disperse, be destroyed’	<i>dím̩mus as</i>	‘destroy’
<i>qʔáčʔ bos</i>	‘dress up’	<i>qʔáčʔbos as</i>	‘dress up’ tr.
<i>cʔábus</i>	‘drink’	<i>cʔábus as</i>	‘make drink’
<i>háʔrš bos</i>	‘boil’ itr./tr	<i>háʔršbos as</i>	‘let boil’ tr.

Table 23. Archi causativized ideophonic compounds with regular meanings  
(data from Chumakina et al. 2007)

The examples below show the use of the two verbs ‘boil’. The underived one is ambitransitive (ex. 116 and 117) while the causative construction (ex. 118) implies an inadvertent, involuntary Agent:

(116) *ʔan*                      *kʔ'eʔrkul-li*    *haʔrʂ:ar-ʂi*    *i*.  
 water(N)(NOM)    heat-ERG    boil.IPF-CV    (N)COP  
 ‘The water is boiling (Russian кипит) because of the heat.’

(117) *zari*        *ʔan*                      *haʔrʂ-bo*.  
 1SG.ERG    water(N)(NOM)    boil-PF  
 ‘I brought some water to the boil.’

(118) *zari*    *diq'*                      *haʔrʂbo-s*    *aw*.  
 1SG.ERG soup(N)(NOM)    boil-INF    (N)do.PF  
 ‘I brought the soup to the boil and let it boil (too long).’

The few other verbs derived with ‘do’ from ideophonic verbs, as can be seen in Table 24, show unpredictable shifts in meaning:

<i>č'á'pɯs</i>	‘burst, explode; shoot’	<i>č'á'pɯs as</i>	‘blow up’ but also ‘lie, tell lies’
<i>č'é'nt' bos</i>	‘squeeze, milk slowly; spit through one’s teeth’	<i>č'é'nt'bos as</i>	‘run over, squash’
<i>g''ár bos</i>	‘hurry, walk fast’	<i>g''árbos as</i>	‘eat fast’

**Table 24.** Archi causativized ideophonic compounds with irregular meanings  
 (data from Chumakina et al. 2007)

Finally, both *dárq bos* and its causative *dárqbos as* mean ‘knock’, while two verbs – *zít'bos as* ‘slap in the face’ (tr.) and *pítbos as* ‘make hissing noise’ (balloon, itr.) – do not have a corresponding non-auxiliarized form.

## 6. Ideophonic verb compounds in children’s speech

One of the strengths of the Archi online dictionary is that it contains a large amount of ‘children’s vocabulary’, also known as ‘nursery words’, i.e. words used exclusively by children or by adults when talking to them. These child speech ideophones cover the same semantic fields, but their phonotactics and phoneme inventory are restricted: the second most common phonotactic type (CVRC(V)) is absent, as are

lateral consonants and uvular occlusives, which are acquired late; and only one verb (*dá'p bos*) has a pharyngeal feature. A full list of these verbs is given in Table 25.

	PF	IPF	INF	IMPER	MSD
'bite'	<i>ʕámmus</i>	<i>ʕamár</i>	<i>ʕámmu</i>	<i>ʕámma</i>	<i>ʕámt'i</i>
'suck; ache'	<i>c'úk' bos</i>	<i>c'úk' war</i>	<i>c'úk' bo</i>	<i>c'úk' ba</i>	<i>c'úk' bumul</i>
'pee'	<i>čiš bos</i>	<i>čiš war</i>	<i>čiš bo</i>	<i>čiš ba</i>	<i>čiš't'i</i>
'walk, take steps'	<i>géd bos</i>	<i>géd war</i>	<i>géd bo</i>	<i>géd ba</i>	<i>géd bumul</i>
'fall over, strike, knock'	<i>dúk bos</i>	<i>dúk war</i>	<i>dúk bo</i>	<i>dúk ba</i>	<i>dúkt'i</i>
'fall'	<i>dá'p bos</i>	<i>dá'p war</i>	<i>dá'p bo</i>	<i>dá'p ba</i>	<i>dá'p bumul</i>
'stand'	<i>ʔét' bos</i>	<i>ʔét'er</i>	<i>ʔét' bo</i>	<i>ʔét' ba</i>	<i>ʔét' bumul</i>
'sit down'	<i>dák' bos</i>	<i>dák' war</i>	<i>dák' bo</i>	<i>dák' ba</i>	<i>dák'ə bumul</i>
'put on shoes'	<i>čit bos</i>	<i>čit war</i>	<i>čit bo</i>	<i>čit ba</i>	<i>čitt'i</i>
'carry on one's back'	<i>hačá bos</i>	<i>hačá war</i>	<i>hačá bo</i>	<i>hačá ba</i>	<i>hačá bumul</i>
'hit'	<i>áh bos</i>	<i>áh war</i>	<i>áh bo</i>	<i>áh ba</i>	<i>áht'i</i>
'roll'	<i>gúgo: bos</i>	<i>gúgor</i>	<i>gúgo bo</i>	<i>gúgo ba</i>	<i>gúgo bumul</i>
'sleep'	<i>lalá bos</i>	<i>lalá war</i>	<i>lalá bo</i>	<i>lalá ba</i>	(no masdar)
'toddle; leave'	<i>datá bos</i>	<i>datáwar</i>	<i>datá bo</i>	<i>datá ba</i>	<i>datá bumul</i>
'turn on (light)'	<i>t'ík'a bos</i>	<i>t'ík'a war</i>	<i>t'ík'a bo</i>	<i>t'ík'a ba</i>	<i>t'ík'a bumul</i>
'throw away'	<i>báho bos</i>	<i>báho war</i>	<i>báho bo</i>	<i>báho ba</i>	<i>bahó bumul</i>

**Table 25.** Ideophonic compounds in Archi children's speech  
(data from Chumakina et al. 2007)

The syntax of the available examples for these compounds does not show any peculiarities. Yet the absence of any gender/number agreement slot in ideophonic compounds in general makes their use particularly straightforward and probably accounts for their productivity in this semantic domain:

- (119) *laha*            *ha'tər-če-q'a-k*            *dump*            *baho + bo.*  
 child.ERG        river-OBL-INTER-LAT    ball(A)        throw + say.PF  
 'The child threw the ball in the river.'



- (120) *lo*            *š:e<sup>h</sup>nt-li-t*            *dak' + bo.*  
 child(N)    chair-OBL-SUPER.ESS    sit + say.PF  
 ‘The child sat down on a chair.’

- (121) *zari*    *un*            *hača + bo-qi.*  
 1.ERG    2.SG.NOM    carry + say.PF-FUT  
 ‘I will carry you on my back.’

These specialized verbs can also be used in comparisons; for instance, to denote childish behaviour:

- (122) *t'i-tu-t*            *laha*            *bana*            *to-r-mi*            *gon*            *c'urar-ši*            *b-i.*  
 small-ATTR-N    child.ERG    like            DIST-F-ERG            finger(N)    suck.IPF-CV    A-COP  
 ‘She sucks her finger like a little child.’

## 7. Borrowings

A relatively large number of the coverbs used in ideophonic compounds appear to be loans from languages with which Archi has been in direct or indirect contact in the course of its history.

### 7.1. Borrowing in Archi of the Lak masdar of ‘say’

The following Lak proverbs (ex. 123 and 124) illustrate the use of ‘say’ in two Lak ideophonic compound verbs:

- (123) *vajna-l*            *bivk'u-s:a*            *tuk:u-gu*            *ha?-t'-i*  
 PROX.PL.OBL-GEN    A.die.PF-ATTR            donkey-ADD            bray-say.IPF-MSD  
*b-a-ns:ar.*  
 A-do.IPF-FUT.3  
 ‘They’ll make a dead donkey bray.’

- (124) *da<sup>r</sup>rβu*    *š:in-a-jn*            *uf ma-t'-ra!*  
 cold    water-OBL-SUPLAT    blow PROHIB-say.IPF-SG  
 ‘Don’t blow on cold water.’

It seems obvious that the Archi masdar ending *-t'i*, found in some but not all ideophonic compounds of this language with the same function as the native ending *-mul*, is a loan from Lak, where it belongs to the regular paradigm of the verb *t'un* 'say'. This morphological borrowing is a decisive argument in favour of an external influence on the development of ideophonic verbs in Archi.

### 7.2. Borrowed Lak ideophones in Archi

Lak uses ideophones in exactly the same manner as Archi, for the same semantic domains, and is probably at the origin of this areal feature. Archi also shares with Lak a limited number of ideophones, for instance (Table 26):

Archi		cf. Lak
<i>a'nga bos</i>	'cry' (newborn baby)	<i>o'nga t'un</i>
<i>a'nšá' bos</i>	'sneeze'	<i>a'nča t'un</i>
<i>č'ú'w bos</i>	'champ, chew with open mouth'	<i>č'a'np'a t'un</i>
<i>qélt bos</i>	'trot'	<i>χalta t'un</i>
<i>s:unt' bos</i>	'sniff'	<i>s:unt'a t'un</i>
<i>t'ánk' bos</i>	'jump'	<i>t'ank'a t'un</i>
<i>ú'nš bos</i>	'blow one's nose'	<i>o'nša t'un</i>
<i>wás bos</i>	'have doubts'	<i>was t'un</i> , cf. Arabic <i>waswasa</i>
<i>χ:árt' bos</i>	'shave'	cf. <i>χ:árt'a t'un</i> 'mow'

**Table 26.** Shared ideophonic coversbs between Archi and Lak  
(Chumakina et al. 2007, Abdullaev 2018)

### 7.3. Integration of non-ideophonic loans as ideophones

Other Archi ideophones have mostly non-ideophonic cognates in languages other than Lak. As can be seen in Table 27, these words or roots are used in Archi with a non-reduced form of the verb 'say'.

Archi	meaning	origin
<i>warč'ámi bos</i>	'greet' = 'say hello'	= Avar 'Good morning' (to a man)
<i>čúčə bos</i>	'wash (oneself or clothes)'	Avar <i>čur-</i> (without reduplication)
<i>č<sup>w</sup>árɛ<sup>s</sup> bos</i>	'flow out; pour out'	Avar <i>č<sup>w</sup>aχ-</i>
<i>čáχ<sup>s</sup> bos</i>	'flow; leak'	Avar <i>č<sup>w</sup>aχ-</i>
<i>qúrš-bos</i>	'slide, slip'	Avar <i>qúrš-</i> 'crawl'
<i>k<sup>w</sup>áš bos</i>	'ransack, rummage'	Avar <i>k<sup>w</sup>er</i> 'hand' instead of Archi <i>kul</i> (id.)
<i>k<sup>w</sup>áχ bos</i>	'grope' (in darkness)	Avar <i>k<sup>w</sup>er</i> 'hand' instead of Archi <i>kul</i> (id.)
<i>k'érs bos</i>	'nod, wag one's finger; yield'	Avar <i>kiliš:</i> 'finger'
<i>árdigi bos</i>	'forbid'	(dialectal) Avar 'don't do it!'
<i>bíz bos</i>	'appear' (grass, bristle, hair)	Turkic <i>biz</i> 'awl, prick'
<i>k'ápus</i>	'wrap up (blanket); cover' (clouds)	Turkic <i>qap-</i> 'shut'
<i>guzmús bos</i>	'mince (walk with short steps)'	<i>gəzmiş</i> , Azeri participle of <i>gəzmək</i> 'walk'
<i>gulúrči bos</i>	'fluff up' (pillow, mattress)	Azeri <i>gulurči</i> 'handworker'
<i>lánk' bos</i>	'limp'	Persian <i>lang</i> 'lame', a regional <i>wanderwort</i>
<i>híjt bos</i>	'hug'	Arabic <i>aḥat'a</i> 'surround, embrace' pres. <i>yu-ḥi:t<sup>s</sup>-u</i> .
<i>wás bos</i>	'have doubts'	Arabic <i>waswasa</i> 'hesitate, to have doubts?'

**Table 27.** Loans used in Archi as ideophonic coverbs (Chumakina et al. 2007; Saidov 1967)

These findings point to the linguistic dominance of Avar, an expected and widely acknowledged fact; more contact than usually assumed between speakers of Archi (male, travelling) and those of a non-adjacent language (Azeri); and some top-down diastatic influence of Arabic as the language of religion.

## 8. Non-ideophonic compounds in *-bus* and *-mus*

The etymological origin of the second element *-mus* as an allophone of *-bus* is as certain as the fact that *-bus* is a bound variant of the free form *bos*; but of the thirty-three verbs in *-mus*, only eight have their full paradigm bearing a trace of the verb 'say' and can be confirmed to be ideophonic. These are: *é<sup>s</sup>mmus* 'cry', *č'á<sup>s</sup>mmus* 'chew', *lámmus* 'lick', *šá<sup>s</sup>mmus* 'gorge', *řámmus* 'bite' (childish), *dámmus* 'blow up', *dúmmus* 'disperse', *kámmus* 'throw'.

Other, more numerous verbs with infinitive in *-mus* and masdar in *-mul*, as well as a couple of verbs with infinitive in *-bus* and masdar in *-mul*, have no other principal part containing a trace of the verb 'to say'. Of these most probably non-ideophonic verbs, 25 have their infinitive in *-mus*. These are: *árk<sup>w</sup>mus* 'scrape, hollow out', *árt<sup>w</sup>mus* 'gnaw', *bá<sup>s</sup>kł<sup>w</sup>mus* 'press', *árχ<sup>w</sup>mus* '(get) spill(ed)', *ásmus* 'measure', *cummús* 'wash', *č'u<sup>s</sup>mmús* 'press', *c'ummús* 'sift', *dárt<sup>w</sup>mus* 'lose weight', *dá<sup>s</sup>š<sup>w</sup>mus* 'become overcast', *ékl<sup>w</sup>mus* 'perform ablution', *éq<sup>w</sup>mus* 'get a splinter; search', *éq<sup>w</sup>mus* 'sink; hide', *ét<sup>w</sup>mus*

‘tie’, *éχmus* ‘climb; hang’, *írktmus* ‘break free’, *írχ<sup>w</sup>mus* ‘work’, *kummús* ‘eat’, *kúmmus* ‘eat’ (animals), *kłummús* ‘pull’, *łummús* ‘flee’, *ókłmus* ‘flee, drive out’, *óqmus* ‘make neck and sleeves’, *óč<sup>s</sup>mus* ‘wake up’, *q<sup>w</sup>ékmus* ‘flay’, *s:ummús* ‘melt’, *χ<sup>s</sup>éχ<sup>s</sup>mus* ‘ferment’, *χ:ummús* ‘weave, knit’.

Table 28 shows the five non-ideophonic verbs in *-bus* as well as a sample of non-ideophonic verbs in *-mus* with their fourth and third gender agreeing forms:

	PF	IPF	INF	IMPER	MSD
‘boil’	<i>s:ubús</i> / <i>busbús</i>	<i>sal</i> / <i>basál</i>	<i>seté</i> / <i>bedé</i>	<i>sísi</i> / <i>bisísi</i>	<i>s:ummúl</i> / <i>busmúl</i>
‘roll over (tr), turn inside out’	<i>χ:<sup>s</sup>ubús</i> / <i>bux:<sup>s</sup>bús</i>	<i>χ:<sup>s</sup>ar</i> / <i>bax:<sup>s</sup>ár</i>	<i>χ:<sup>s</sup>eté</i> / <i>bex:<sup>s</sup>dé</i>	<i>χ:<sup>s</sup>e</i> / <i>bex:<sup>s</sup>é</i>	<i>χ:<sup>s</sup>umúl</i> / <i>bux:<sup>s</sup>múl</i>
‘take’	<i>šubús</i> / <i>bušbús</i>	<i>šur</i> / <i>bušúr</i>	<i>še</i> / <i>bešé</i>	<i>χ:a</i> / <i>bax:a</i>	<i>šummúl</i> / <i>bušmul</i>
‘paint’	<i>łubús</i> / <i>bułbús</i>	<i>łar</i> / <i>bałár</i>	<i>łeté</i> / <i>bełdé</i>	<i>łe</i> / <i>bełé</i>	<i>łumúl</i> / <i>bułmúl</i>
‘go in, enter; start doing smth’	<i>č<sup>s</sup>ubús</i> / <i>buč<sup>s</sup>bús</i>	<i>č<sup>s</sup>ur</i> / <i>buč<sup>s</sup>úr</i>	<i>č<sup>s</sup>eté</i> / <i>beždé</i>	<i>č<sup>s</sup>e</i> / <i>beč<sup>s</sup>é</i>	<i>č<sup>s</sup>ummúl</i> / <i>č<sup>s</sup>ummúl</i>
‘eat’ (human)	<i>kummús</i> / <i>bukmús</i>	<i>k<sup>w</sup>an</i> / <i>bukán</i>	<i>kunné</i> / <i>bukné</i>	<i>k<sup>w</sup>en</i> / <i>bukén</i>	<i>kummúl</i> / <i>bukmúl</i>
‘eat (animal); gorge’	<i>kúmmus</i> / <i>bukúmmus</i>	<i>kúkin</i> / <i>bukúkin</i>	<i>kunné</i> / <i>bukúnni</i>	<i>kúkin</i> / <i>bukúkin</i>	—
‘be ticklish’	<i>łorót<sup>s</sup>mus</i> / <i>bołrót<sup>s</sup>mus</i>	<i>łorót<sup>s</sup>in</i> / <i>bołrót<sup>s</sup>in</i>	<i>łorót<sup>s</sup>ni</i> / <i>bołrót<sup>s</sup>ni</i>	<i>łorót<sup>s</sup>in</i> / <i>bołrót<sup>s</sup>in</i>	<i>łorót<sup>s</sup>mul</i> / <i>bołrót<sup>s</sup>mul</i>
‘melt’	<i>s:ummús</i> / <i>busmús</i>	<i>s:éms:in</i> / <i>bes:éms:in</i>	<i>s:enné</i> / <i>besné</i>	<i>s:éms:in</i> / <i>bes:éms:in</i>	<i>s:émsmul</i> / <i>bes:émsmul</i>
‘rise’ (dough)	<i>χ<sup>s</sup>éχ<sup>s</sup>mus</i>	<i>χ<sup>s</sup>érχ<sup>s</sup>in</i>	<i>χ<sup>s</sup>éχ<sup>s</sup>ni</i>	<i>χ<sup>s</sup>éχ<sup>s</sup>in</i>	<i>χ<sup>s</sup>éχ<sup>s</sup>mul</i>
‘pull, stretch’	<i>kłummús</i> / <i>bukłmús</i>	<i>kłan</i> / <i>bekłén</i>	<i>kłenné</i> / <i>bekłné</i>	<i>kłen</i> / <i>bakłán</i>	<i>kłummúl</i> / <i>bekłnékul</i>
‘knead’	<i>š<sup>s</sup>u<sup>s</sup>mmú<sup>s</sup></i> / <i>bu<sup>s</sup>š<sup>s</sup>mú<sup>s</sup></i>	<i>š<sup>s</sup>é<sup>s</sup>mš<sup>s</sup>in</i> / <i>be<sup>s</sup>š<sup>s</sup>é<sup>s</sup>mš<sup>s</sup>in</i>	<i>š<sup>s</sup>e<sup>s</sup>nné<sup>s</sup></i> / <i>be<sup>s</sup>š<sup>s</sup>né<sup>s</sup></i>	<i>š<sup>s</sup>é<sup>s</sup>mš<sup>s</sup>in</i> / <i>be<sup>s</sup>š<sup>s</sup>é<sup>s</sup>mš<sup>s</sup>in</i>	<i>š<sup>s</sup>é<sup>s</sup>mš<sup>s</sup>mul</i> / <i>be<sup>s</sup>š<sup>s</sup>é<sup>s</sup>mš<sup>s</sup>mul</i>
‘knit, weave’	<i>χ:ummús</i> / <i>bux:mús</i>	<i>χ:émχ:in</i> / <i>bex:émχ:in</i>	<i>χ:enné</i> / <i>bexné</i>	<i>χ:émχ:in</i> / <i>bex:émχ:in</i>	<i>χ:émχ:mul</i> / <i>bex:émχ:mul</i>

**Table 28.** Some non-ideophonic Archi verbs with infinitives ending in *-bus* and *-mus* (data from Chumakina et al. 2007)

Most of these basic activity verbs, including the two verbs for ‘eat’ (for humans and animals respectively), have very clear cognates in other Lezgian languages and beyond. However, this topic will be left for another article.

## 9. Conclusion

Archi has a large class of more than 250 ideophones, which are a subclass of ‘coverbs’ (elements of complex verbs), used exclusively in verb compounds (and their non-inflecting derivatives), constructed with the verb ‘say’. These complex verbs, which outnumber the 163 or so simplex verbs, cover a broad range of semantic fields, including transitive action verbs, and are very common in all types of discourse. Many ideophones are semantically bleached and can be identified mainly on formal grounds because of their use with ‘say’ as a light verb.

The ubiquity of ideophonic compounds in Archi distinguishes it from the languages that are genetically closest to it: there are no such verbal compounds with the verb ‘say’ in any other Lezgian languages (except maybe Udi), where ideophones are rare in all types of speech.

Since no other member of the Lezgian branch shows such an expansive class of ideophonic coverbs, their etymology is hard to trace, but recent dictionaries will probably help identify some Archi ideophones as inherited. However, their combination with the light verb ‘say’ is a comparatively recent innovation due to the influence of Lak and is still productive, as shown by the Avar loans used as coverbs with ‘say’. It should also be noted that Avar, the most widely spoken indigenous language of Dagestan and currently the dominant language in the region where Archi is spoken, has no ideophonic compounds of the Archi, Lak or Dargwa types, and ideophones are only marginally present in its lexicon. Yet the trend set by the adoption of this construction is likely to go further because the auxiliary ‘say’ is a productive tool for creating new, inflectionally manageable verbs in a language otherwise riddled with morphological complexity.

A proper study of Lak and Dargwa ideophonic compounds remains to be undertaken, and their comparison with our findings in Archi is likely to provide more insights into the history of these languages and their contacts.

## Acknowledgements

This article could not have been written without the Archi online dictionary, from which almost all the information presented here has been extracted. Its main author, Marina Chumakina, deserves universal recognition for her outstanding work. I also wish to thank Steven Kaye, Murad Suleymanov, and the editors for English proofreading.

## Abbreviations

A	non-human animate gender	IPF	imperfective aspect
CONTLAT	‘contlative’	LAT	lative
COP	copula	M	human feminine gender
CV	converb	MSD	masdar (action noun)
DIST	distal demonstrative	N	fourth ‘inanimate’ gender
F	human feminine gender	PF	perfective aspect
FUT	future tense	PROX	proximal demonstrative
IMPER	imperative	SEQ	sequential converb
IN	locative ‘inside’	SUPER	locative ‘on’
INF	infinitive		

## References

- Abdullaev, Isa. 2018. *Laksko-russkij slovar'*. IJaLI DNC RAN, ALEF, Makhachkala.
- Arkhipov Alexandre, Daniel Michael, Khoroshkina Anna, Kibrik Aleksandr E., Kodzasov Sandro V., Olovyannikova Irina P. & Samedov Dzhilil S. 2007. Archi text corpus (1.0) [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.8247597>
- Authier, Gilles. 2009. *Grammaire kryz, langue caucasique d’Azerbaïdjan*. Louvain: Peeters.
- Chumakina, Marina, Dunstan Brown, Greville G. Corbett & Harley Quilliam. 2007. *A dictionary of Archi: Archi-Russian-English* (Online edition). University of Surrey. <http://dx.doi.org/10.15126/SMG.16/2>
- Chumakina, Marina. 2011. Morphological complexity of Archi verbs. In Gilles Authier and Timur Maisak (eds) *Tense, aspect, modality and finiteness in East Caucasian languages* (Diversitas Linguarum 30), 1-24. Bochum: Brockmeyer.

- Chumakina, Marina. 2013. Periphrasis in Archi. In Marina Chumakina & Greville G. Corbett, *Periphrasis: The role of syntax and morphology in paradigms*. (Proceedings of the British Academy 180), 27-52. Oxford: British Academy and Oxford University Press.
- Chumakina, Marina. 2015. Archi. In Peter O. Müller, Ingeborg Ohnheiser, Susan Olsen & Franz Rainer (eds), *Word formation: An international handbook of the languages of Europe* (Handbooks of Linguistics and Communication Science, HSK40). Berlin: de Gruyter Mouton.
- Chumakina, Marina. 2019. Bound but still independent: quotative and verificative in Archi. In: Matthew Baerman, Oliver Bond and Andrew Hippisley (eds). *Morphological Perspectives. Papers in Honour of Greville G. Corbett*. Edinburgh: Edinburgh University Press. 281-299.
- Chumakina, Marina & Greville G. Corbett. 2015. Gender number marking in Archi: Small is complex. In Matthew Baerman, Dunstan Brown & Greville G. Corbett (eds), *Understanding and measuring morphological complexity*, 93-116. Oxford: Oxford University Press.
- Chumakina, Marina and Bond, Oliver. 2016. Competing controllers and agreement potential. In Oliver Bond, Greville G. Corbett, Marina Chumakina and Dunstan Brown (eds), *Archi: Complexities of agreement in cross-theoretical perspective*, 77-117. Oxford Studies of Endangered Languages. Oxford: Oxford University Press.
- Ganenkov, Dmitry. 2005. *Kontaktnye lokalizacii v naxsko-dagestanskix jazykax i ix tipologičeskie paralleli*. Doctoral dissertation, State University of Moscow.
- Kibrik, Aleksandr. 1977. *Opyt strukturnogo opisanija archinskogo jazyka*. Moscow: Izdatel'stvo moskovskogo universiteta.
- Kibrik, Aleksandr. 1994. "Archi". In R. Smeets (ed.). *Indigenous languages of the Caucasus*, 297–365, Vol. 3. New York: Caravan Books.
- Saidov, Magomed Sajid. 1967. *Avarsko-russkij slovar'*. Moscow: Sovetskaya entsiklopedija

**CONTACT**

gilles.authier@gmail.com

## Appendix

## A1. Complete lists of ideophonic sensation verbs in Archi:

	PF	IPF	INF	IMPER	MSD
'smell'	<i>súnt' bos</i>	<i>sunt'ar</i>	<i>súnt' bo</i>	<i>súnt' ba</i>	<i>súntt'i</i>
'smoke; smell'	<i>p'áh bos</i>	<i>p'ahár</i>	<i>p'áh bo</i>	<i>p'áh ba</i>	<i>p'áht'i</i>
'clear up'	<i>wák' bos</i>	<i>wak'ár</i>	<i>wák' bo</i>	<i>wák' ba</i>	<i>wák't'i</i>
'break out in a rash'	<i>zímł bos</i>	<i>zímł war</i>	<i>zímł bo</i>	<i>zímł ba</i>	<i>zímł bumul</i>
'itch'	<i>χ<sup>ws</sup>ár bos</i>	<i>χ<sup>r</sup>urár</i>	<i>χ<sup>ws</sup>ár bo</i>	<i>χ<sup>ws</sup>ár ba</i>	<i>χ<sup>ws</sup>árt'i</i>
'scratch, itch'	<i>gúk:ə bos</i>	<i>guk:ór</i>	<i>gúk:ə bo</i>	<i>gúk:ə ba</i>	<i>gúk:ət'i</i>
'become cold (weather)'	<i>zámq' bos</i>	<i>zamq'ár</i>	<i>zámq' bo</i>	<i>zámq' ba</i>	<i>zámq' bumul</i>
'shrink, shiver, huddle up (cold)'	<i>q'émq'i bos</i>	<i>q'emq'ér</i>	<i>q'émq'i bo</i>	<i>q'émq'i ba</i>	<i>q'émq't'i</i>
'catch fire; get burnt' (food)	<i>pírχ bos</i>	<i>parχ:ár</i>	<i>pírχ bo</i>	<i>pírχ ba</i>	<i>pírχt'i</i>
'be overdone' (meat)	<i>túr bos</i>	<i>turár</i>	<i>túr bo</i>	<i>túr ba</i>	<i>túr bumul</i>
'become sour'	<i>q'ánc' bos</i>	<i>q'anc'ár</i>	<i>q'ánc' bo</i>	<i>q'ánc' ba</i>	<i>q'ánc't'i</i>
'ache'	<i>c'úk' bos</i>	<i>c'úk' war</i>	<i>c'úk' bo</i>	<i>c'úk' ba</i>	<i>c'úk' bumul</i>
'throb (pain)'	<i>wá'rt bos</i>	<i>wa'rtár</i>	<i>wá'rt bo</i>	<i>wá'rt ba</i>	<i>wá'rt bumul</i>
'want to eat smth'	<i>láhbos</i>	<i>lahár</i>	<i>láhbo</i>	<i>láhba</i>	<i>láht'i</i>
'be lazy, not hungry'	<i>húc' bos</i>	<i>húc' war</i>	<i>húc' bo</i>	<i>húc' ba</i>	<i>húc't'i</i>
'overripen (wheat)'	<i>k'íj bos</i>	<i>k'ijár</i>	<i>k'íj bo</i>	<i>k'íj ba</i>	<i>k'íjt'i</i>
'smoke (itr), become rich'	<i>bú'r bos</i>	<i>bú'r war</i>	<i>bú'r bo</i>	<i>bú'r ba</i>	<i>bú'rt'i</i>
'repent and reform; grow better (physically)'	<i>hínq' bos</i>	<i>hínq' war</i>	<i>hínq' bo</i>	<i>hínq' ba</i>	<i>hínq' bumul</i>
'appear' (grass, bristle, hair)	<i>bíz bos</i>	<i>bíz war</i>	<i>bíz bo</i>	<i>bíz ba</i>	<i>bíz bumul</i>



## A2. Complete lists of ideophonic weather sound verbs and animal communication verbs in Archi:

	PF	IPF	INF	IMPER	MSD
‘thunder’	<i>qúbus</i>	<i>qúr</i>	<i>qúbu</i>	<i>qú ba</i>	<i>qút’i</i>
‘pour’ (rain)	<i>wéʒ bos</i>	<i>wéʒ war</i>	<i>wéʒ bo</i>	<i>wéʒ ba</i>	?
‘drizzle’	<i>c’éc’ bos</i>	<i>c’éc’er</i>	<i>c’éc’ bo</i>	<i>c’éc’ ba</i>	<i>c’éc’ə bumul</i>
‘screech’ (owl)	<i>c’ír bos</i>	<i>c’arár</i>	<i>c’ír bo</i>	<i>c’ír ba</i>	<i>c’írt’i</i>
‘chirp’	<i>č’irq’ír bos</i>	<i>č’irq’ír war</i>	<i>č’irq’ír bo</i>	<i>č’irq’ír ba</i>	<i>č’irq’írt’i</i>
‘buzz’	<i>zíz bos</i>	<i>zíz war</i>	<i>zíz bo</i>	<i>zíz ba</i>	<i>zíz bumul</i>
‘bark’	<i>ha’mp bos</i>	<i>ha’mpár</i>	<i>há’mp bo</i>	<i>há’mp ba</i>	<i>há’mpt’i</i>
‘howl’	<i>úw bos</i>	<i>uwár</i>	<i>úw bo</i>	<i>úw ba</i>	<i>úw bumul</i>
‘bark’	<i>wúp bos</i>	<i>wúp war</i>	<i>wúp bo</i>	<i>wúp ba</i>	<i>wúp bumul</i>
‘growl’	<i>húbus</i>	<i>hur</i>	<i>húbu</i>	<i>hú ba</i>	<i>hút’i</i>
‘meow’	<i>ní’wbos</i>	<i>ní’wár</i>	<i>ní’w bo</i>	<i>ní’w ba</i>	<i>ní’wt’i</i>
‘hiss, spit’ (cat, snake)	<i>kʰʰ bos</i>	<i>kʰʰár</i>	<i>kʰʰ bo</i>	<i>kʰʰ ba</i>	<i>kʰʰt’i</i>
‘crow’ (rooster)	<i>uríʔiʔuʰ bos</i>	<i>uríʔiʔuʰwar</i>	<i>uríʔiʔuʰbo</i>	<i>uríʔiʔuʰba</i>	<i>uríʔiʔuʰ bumul</i>
‘whinny’	<i>hihí bos</i>	<i>hihi wár</i>	<i>hihí bo</i>	<i>hihí ba</i>	<i>hihi bumul</i>
‘sigh’ (cow, horse)	<i>úh bos</i>	<i>úh war</i>	<i>úhbo</i>	<i>úhba</i>	<i>úht’i</i>
‘bray’	<i>hóʔ bos</i>	<i>haʔár</i>	<i>hóʔ bo</i>	<i>hóʔ ba</i>	<i>hóʔt’i</i>
‘moo, bellow’	<i>víʒ bos</i>	<i>ʒavár</i>	<i>víʒ bo</i>	<i>víʒ ba</i>	<i>víʒ bumul</i>
‘coo; moo’	<i>bú bos</i>	<i>búr</i>	<i>bú bo</i>	<i>bú ba</i>	<i>bú bumul</i>
‘bleat’ (sheep)	<i>máʰ bos</i>	<i>máʰ war</i>	<i>máʰ bo</i>	<i>máʰ ba</i>	<i>máʰ bumul</i>
‘bleat’ (goat)	<i>meʔé bos</i>	<i>meʔé war</i>	<i>meʔé bo</i>	<i>meʔé ba</i>	<i>meʔé bumul</i>
‘hurry sheep up’	<i>šípq’íp bos</i>	<i>šípq’íp war</i>	<i>šípq’íp bo</i>	<i>šípq’íp ba</i>	<i>šípq’íp bumul</i>
‘urge sheep on’	<i>jú bos</i>	<i>júwar</i>	<i>jú bo</i>	<i>jú ba</i>	<i>jú bumul</i>

## A3. Complete lists of ideophonic intransitive movement verbs in Archi:

	PF	IPF	INF	IMPER	MSD
‘fidget, swarm’	<i>ž’ál bos</i>	<i>žulár</i>	<i>ž’ál bo</i>	<i>ž’ál ba</i>	<i>ž’ált’i</i>
‘crash, plump’	<i>wá’p’ bos</i>	<i>wá’p’ war</i>	<i>wá’p’ bo</i>	<i>wá’p’ ba</i>	<i>wá’p’ bumul</i>
‘dislocate’ (joint)	<i>q’ʰárt’ bos</i>	<i>q’ʰart’ár</i>	<i>q’ʰárt’ bo</i>	<i>q’ʰárt’ ba</i>	<i>q’ʰártt’i</i>
‘be loose’ (tooth)	<i>gá’rtbos</i>	<i>ga’rtár</i>	<i>gá’rtbo</i>	<i>gá’rtba</i>	<i>gá’rtbumul</i>
‘roll out’	<i>gérgi bos</i>	<i>gérger</i>	<i>gérgibo</i>	<i>gérgi ba</i>	<i>gérgi bumul</i>
‘rock’ (cot)	<i>gérkibos</i>	<i>gérker</i>	<i>gérkibo</i>	<i>gérki ba</i>	<i>gérkə bumul</i>
‘go curly’ (hair)	<i>k’érk’ə bos</i>	<i>k’erk’er</i>	<i>k’érk’ə bo</i>	<i>k’érk’ə ba</i>	<i>k’érk’ət’i</i>
‘disperse, be destroyed’	<i>dímmus</i>	<i>damár</i>	<i>dímmu</i>	<i>dímma</i>	<i>dímt’i</i>

	PF	IPF	INF	IMPER	MSD
	PF	IPF	INF	IMPER	MSD
'be shaken, shake'	<i>dá'nk bos</i>	<i>da'nkár</i>	<i>dá'nk bo</i>	<i>dá'nk ba</i>	<i>dá'nk bumul</i>
'come apart' (hay; road)	<i>čírχ' bos</i>	<i>čírχ' war</i>	<i>čírχ' bo</i>	<i>čírχ' ba</i>	<i>čírχ' bumul</i>
'boil' (itr; tr)	<i>há'rš bos</i>	<i>ha'ršár</i>	<i>há'rš bo</i>	<i>há'rš ba</i>	<i>há'rš bumul</i>
'flow; leak'	<i>čáχ' bos</i>	<i>čaχ'ár</i>	<i>čáχ' bo</i>	<i>čáχ' ba</i>	<i>čáχ't'i</i>
'slide, slip'	<i>qúrš-bos</i>	<i>quršár</i>	<i>qúrš-bo</i>	<i>qúrš-ba</i>	<i>qúršt'i</i>
'get stuck in marshy soil'	<i>pú'rš bos</i>	<i>pu'ršár</i>	<i>pú'rš bo</i>	<i>pú'rš ba</i>	<i>pú'rš bumul</i>
'blink; start, twitch'	<i>pársbos</i>	<i>parsár</i>	<i>pársbo</i>	<i>pársba</i>	<i>párst'i</i>
'collapse'	<i>wárχ' bos</i>	<i>warχ'ár</i>	<i>wárχ' bo</i>	<i>wárχ' ba</i>	<i>wárχ't'i</i>
'crack' (wood)	<i>wírq' bos</i>	<i>wírq' war</i>	<i>wírq' bo</i>	<i>wírq' ba</i>	<i>wírq' bumul</i>
'break' (wood)	<i>žírq' bos</i>	<i>žarq'ár</i>	<i>žírq' bo</i>	<i>žírq' ba</i>	<i>žírq't'i</i>
'draw out' (smoke)	<i>c'úr bos</i>	<i>c'urár</i>	<i>c'úr bo</i>	<i>c'úr ba</i>	<i>c'úrt'i</i>
'dance'	<i>qébus</i>	<i>qer</i>	<i>qébu</i>	<i>qé ba</i>	<i>qét'i</i>
'jump'	<i>t'ánk' bos</i>	<i>t'ank'ár</i>	<i>t'ánk' bo</i>	<i>t'ánk' ba</i>	<i>t'ánk't'i</i>
'rummage'	<i>χ:<sup>w</sup>élt' bos</i>	<i>χ:<sup>w</sup>ult'ár</i>	<i>χ:<sup>w</sup>élt'bo</i>	<i>χ:<sup>w</sup>élt'ba</i>	<i>χ:<sup>w</sup>élt't'i</i>
'walk fast'	<i>dúr bos</i>	<i>durár</i>	<i>dúr bo</i>	<i>dúr ba</i>	<i>dúrt'i</i>
'mince steps'	<i>guzmús bos</i>	<i>guzmús war</i>	<i>guzmús bo</i>	<i>guzmús ba</i>	<i>guzmús bumul</i>
'speed up'	<i>t'ír'k' bos</i>	<i>t'ark'ár</i>	<i>t'ír'k' bo</i>	<i>t'ír'k' ba</i>	<i>t'ír'k't'i</i>
'trot' (horses)	<i>qélt bos</i>	<i>qéltar</i>	<i>qélt bo</i>	<i>qélt ba</i>	<i>qéltt'i</i>
'stroll, walk'	<i>qéc-šec bos</i>	<i>qéc-šec war</i>	<i>qéc-šec bo</i>	<i>qéc-šec ba</i>	<i>qéc-šec bumul</i>
'walk, run' (cars)	<i>qéc bos</i>	<i>qécer</i>	<i>qéc bo</i>	<i>qéc ba</i>	<i>qéc bumul</i>
'crawl'	<i>łúrχ' bos</i>	<i>łurχ'ár</i>	<i>łúrχ' bo</i>	<i>łúrχ' ba</i>	<i>łúrχ't'i</i>
'shuffle one's feet'	<i>łérχ' bos</i>	<i>łurχ'ár</i>	<i>łérχ' bo</i>	<i>łérχ' ba</i>	<i>łurχ't'i</i>
'fly'	<i>párχ bos</i>	<i>parχár</i>	<i>párχ bo</i>	<i>párχ ba</i>	<i>párχt'i</i>
'stream, fly'	<i>pár bos</i>	<i>parár</i>	<i>pár bo</i>	<i>pár ba</i>	<i>párt'i</i>
'go fast' (livestock)	<i>qút bos</i>	<i>qút war</i>	<i>qút bo</i>	<i>qút ba</i>	<i>qút bumul</i>
'limp'	<i>lánk' bos</i>	<i>lank'ár</i>	<i>lánk' bo</i>	<i>lánk'ba</i>	<i>lánk't'i</i>
'wag one's finger; yield'	<i>k'érsš bos</i>	<i>k'érsš:er</i>	<i>k'érsš bo</i>	<i>k'érsš ba</i>	<i>k'érsšt'i</i>

## A4. Complete lists of ideophonic transitive movement verbs in Archi:

	PF	IPF	INF	IMPER	MSD
'squeeze, milk slowly, spit through one's teeth'	<i>č'é<sup>s</sup>nt' bos</i>	<i>č'é<sup>s</sup>nt'er</i>	<i>č'é<sup>s</sup>nt' bo</i>	<i>č'é<sup>s</sup>nt' ba</i>	<i>č'é<sup>s</sup>ntt'i</i>
'throw; wave'	<i>láp:us</i>	<i>lap'ár</i>	<i>láp:u</i>	<i>láp:a</i>	<i>láp:ukul</i>
'rock vigorously (baby); eat one's fill'	<i>bú<sup>s</sup>rt' bos</i>	<i>bu<sup>s</sup>rt'ár</i>	<i>bú<sup>s</sup>rt' bo</i>	<i>bú<sup>s</sup>rt' ba</i>	<i>bú<sup>s</sup>rtt'i</i>
'pull' (fleece), 'fluff up' (pillow, feather bed)	<i>gulúrči bos</i>	<i>gulúrčor</i>	<i>gulúrči bo</i>	<i>gulúrči ba</i>	<i>gulúrčit'i</i>
'limp; adjust' (eg., a pack on one's back)	<i>húrk' bos</i>	<i>hurk'ár</i>	<i>húrk' bo</i>	<i>húrk' ba</i>	<i>húrk'ə bumul</i>
'incite, stir up against'	<i>husú bos</i>	<i>husú war</i>	<i>husú bo</i>	<i>husú ba</i>	<i>husú bumul</i>
'slam' (door)	<i>q<sup>w</sup>ank' bos</i>	<i>q<sup>w</sup>ank' war</i>	<i>q<sup>w</sup>ank' bo</i>	<i>q<sup>w</sup>ank' ba</i>	<i>q<sup>w</sup>ank' t'i</i>
'push, slap lightly, hammer' (lightly)	<i>q'úc' bos</i>	<i>q'úc' war</i>	<i>q'úc' bo</i>	<i>q'úc' ba</i>	<i>q'úct'i</i>
'separate lambs'	<i>deré bos</i>	<i>dere wár</i>	<i>deré bo</i>	<i>deré ba</i>	<i>deré bummul</i>
'ransack, rummage'	<i>k<sup>w</sup>áš bos</i>	<i>kušár</i>	<i>k<sup>w</sup>áš bo</i>	<i>k<sup>w</sup>áš ba</i>	<i>k<sup>w</sup>áš bumul</i>
'hug'	<i>híjt bos</i>	<i>hijtár</i>	<i>híjt bo</i>	<i>híjt ba</i>	<i>híjtt'i</i>
'snatch'	<i>χáp:us</i>	<i>χapár</i>	<i>χáp:u</i>	<i>χáp:a</i>	<i>χápt'i</i>
'tap; peck; do fast'	<i>k'út' bos</i>	<i>k'út'ár</i>	<i>k'út' bo</i>	<i>k'út' ba</i>	<i>k'útt'i</i>
'caress' (a child)	<i>dítan bos</i>	<i>dítan war</i>	<i>dítan bo</i>	<i>dítan ba</i>	<i>dítan bumul</i>
'turn back, drive cattle; ruffle'	<i>dáɓ bos</i>	<i>daɓár</i>	<i>dáɓ bo</i>	<i>dáɓ ba</i>	<i>dáɓt'i</i>
'flow out; pour out'	<i>č<sup>w</sup>árɓ<sup>s</sup> bos</i>	<i>čurɓ<sup>s</sup>ár</i>	<i>č<sup>w</sup>árɓ<sup>s</sup> bo</i>	<i>č<sup>w</sup>árɓ<sup>s</sup> ba</i>	<i>č<sup>w</sup>árɓ<sup>s</sup>t'i</i>
'turn, squeeze'	<i>q<sup>w</sup>érq'ə bos</i>	<i>q<sup>w</sup>érq'er</i>	<i>q<sup>w</sup>érq'əbo</i>	<i>q<sup>w</sup>érq'ə ba</i>	<i>q<sup>w</sup>érq'ət'i</i>
	PF	IPF	INF	IMPER	MSD
'hold smb/smth with an iron hand'	<i>q<sup>w</sup>árɫ bos</i>	<i>q'urɫár</i>	<i>q<sup>w</sup>árɫ bo</i>	<i>q<sup>w</sup>árɫ ba</i>	<i>q<sup>w</sup>árɫt'i</i>

	PF	IPF	INF	IMPER	MSD
'push, make fall'	<i>χít' bos</i>	<i>χat'ár</i>	<i>χít' bo</i>	<i>χít' ba</i>	<i>χít't'i</i>
'stuff, fill'	<i>zánk bos</i>	<i>zánk war</i>	<i>zánk bo</i>	<i>zánk ba</i>	<i>zánkt'i</i>
'butt; stick in, thrust'	<i>q'ébus</i>	<i>q'ér</i>	<i>q'ébu</i>	<i>q'é-ba</i>	<i>q'é't'i</i>
'jam, crush, squash'	<i>búrkł' bos</i>	<i>burkł'ár</i>	<i>búrkł' bo</i>	<i>búrkł' ba</i>	<i>búrkł't'i</i>
'push, cram, stuff in'	<i>š:<sup>w</sup>élš:i bos</i>	<i>š:<sup>w</sup>elš:ér</i>	<i>š:<sup>w</sup>élš:i bo</i>	<i>š:<sup>w</sup>élš:i ba</i>	<i>š:<sup>w</sup>élš:i bumul</i>
'coat, smear'	<i>sús:ε bos</i>	<i>sus:ór</i>	<i>sús:ε bo</i>	<i>sús:ε ba</i>	<i>sús:εt'i</i>
'dig, take off a layer'	<i>qért' bos</i>	<i>qért'er</i>	<i>qért' bo</i>	<i>qért' ba</i>	<i>qértt'i</i>
'hit, butt' (calf)	<i>q'úč bos</i>	<i>q'úč war</i>	<i>q'úč bo</i>	<i>q'úč ba</i>	<i>q'úč bumul</i>
'wrap' (blanket); 'cover' (clouds)	<i>k'á:p:us</i>	<i>k'a:p:ár</i>	<i>k'á:p:u</i>	<i>k'á:p:a</i>	<i>k'á:pt'i</i>
'fill to the brim'	<i>zérzi bos</i>	<i>zérzer</i>	<i>zérzi bo</i>	<i>zérzi ba</i>	<i>zérzət'i</i>
'sprinkle salt'	<i>zúz bos</i>	<i>zúz war</i>	<i>zúz bo</i>	<i>zúz ba</i>	<i>zúz bumul</i>
'shake' (clothes)	<i>q'áp:us</i>	<i>q'ap:ár</i>	<i>q'áp:u</i>	<i>q'áp:a</i>	<i>q'á:pt'i</i>
'push (people), stick a needle; hammer'	<i>q'éč bos</i>	<i>q'éčer</i>	<i>q'éč bo</i>	<i>q'éč ba</i>	<i>q'éčt'i</i>
'rub; rub oneself'	<i>kłúr bos</i>	<i>kłurár</i>	<i>kłúr bo</i>	<i>kłúr ba</i>	<i>kłúrt'i</i>
'splash, spatter with'	<i>tért bos</i>	<i>tertér</i>	<i>tért bo</i>	<i>tért ba</i>	<i>tért bumul</i>
'throw; shoot' (gun)	<i>kámmus</i>	<i>kamár</i>	<i>kámmu</i>	<i>kámma</i>	<i>kámt'i</i>

## A5. Complete lists of ideophonic coverbs with CVC template:

<i>bá? bos</i>	'kiss'	<i>c'úr bos</i>	'draw out' (smoke)
<i>bíz bos</i>	'appear' (grass, bristle, hair)	<i>č'ú<sup>w</sup> bos</i>	'champ, chew with open mouth'
<i>bú'r bos</i>	'smoke (itr), become rich'	<i>čák' bos</i>	'lick clean' (plates)
<i>č'ák' bos</i>	'chatter'	<i>čáχ<sup>s</sup> bos</i>	'flow; leak'
<i>č'á<sup>m</sup>mmus</i>	'chew'	<i>čřł bos</i>	'sizzle'
<i>č'á:p:us</i>	'burst, explode; crack; shoot'	<i>dáb bos</i>	'turn back; drive cattle; ruffle'
<i>c'íq' bos</i>	'fart'	<i>dé'j bos</i>	'resound' (echo)
<i>c'ír bos</i>	'screech' (owl)	<i>dámmus</i>	'explode'
<i>c'úk' bos</i>	'ache'		

<i>dímmus</i>	‘disperse, be destroyed’	<i>qat’ bos</i>	‘measure one’s strength with smb,’
<i>dúr bos</i>	‘walk fast’	<i>qéc bos</i>	‘walk, run’ (cars)
<i>dú’t’ bos</i>	‘blow (trumpet)’	<i>q’éc’ bos</i>	‘push (people), stick a needle; hammer’
<i>g<sup>w</sup>ár bos as</i>	‘eat sth fast’	<i>qíp:us</i>	‘defecate’
<i>há’h bos</i>	‘breathe’	<i>qúc bos</i>	‘sew with short stitches’
<i>hákt’ bo</i>	‘yawn’	<i>q’úč bos</i>	‘hit, butt (calf)’
<i>hát bos</i>	‘scold’	<i>qút bos</i>	‘go fast (livestock)’
<i>hīj bos</i>	‘plough’	<i>κ’áz bos</i>	‘cut’ (grass)
<i>hó’? bos</i>	‘bray’	<i>κ’úž bos</i>	‘rub hard’ (clothes)
<i>húbus</i>	‘growl’	<i>κ<sup>ws</sup>ár bos</i>	‘crack (voice)’
<i>húč’ bos</i>	‘be lazy, not hungry’	<i>š<sup>w</sup>ít’ bos</i>	‘whistle’
<i>k’á’p:us</i>	‘wrap’ (blanket); ‘cover’ (clouds)	<i>šá’mmus</i>	‘gorge’
<i>k’fj bos</i>	‘overripen (wheat)’	<i>šá’mmus</i>	‘gorge’
<i>k’úr bos</i>	‘take a nap’	<i>sém bos</i>	‘eat too little and unwillingly’
<i>k’út’ bos</i>	‘tap; peck; do smth fast’	<i>šúš bos</i>	to whisper’
<i>kámmus</i>	‘throw; shoot (gun)’	<i>túr bos</i>	‘be overdone, be spoilt’ (meat)
<i>křř bos</i>	‘hiss, spit (cat, snake)’	<i>wák’ bos</i>	‘clear up’
<i>křúr bos</i>	‘rub; rub oneself’	<i>wá’p’ bos</i>	‘crash, plump’
<i>k<sup>w</sup>áš bos</i>	‘ransack, rummage’	<i>wás bos</i>	‘have doubts’
<i>láhbos</i>	‘want to eat smth’	<i>wúp bos</i>	‘bark’
<i>lammus</i>	‘lick’	<i>záp:os</i>	‘invite’
<i>láp:us</i>	‘throw; wave’	<i>zúz bos</i>	‘sprinkle salt’
<i>p’áh bos</i>	‘smoke; smell’	<i>ž<sup>w</sup>ál bos</i>	‘fidget, swarm’
<i>p’á? bos</i>	‘kiss’	<i>ζóp’ bos</i>	‘burp’
<i>pár bos</i>	‘stream, fly’	<i>χáp:us</i>	‘snatch’
<i>pút bos</i>	‘stew (nettle); sputter’	<i>χάq<sup>s</sup> bos</i>	‘throw up’
<i>q’áč’ bos</i>	‘dress up’	<i>χít’ bos</i>	‘push, make fall’
<i>q’áp:us</i>	‘shake (washed clothes)’	<i>χ<sup>ws</sup>ár bos</i>	‘itch’
<i>q’éc’ bos</i>	‘nag, bother’	<i>χ<sup>w</sup>ít’ bós</i>	‘comb threads while weaving’
<i>q’ix bos</i>	‘yell’		
<i>q’úc’ bos</i>	‘push, slap lightly, hammer’		
<i>q<sup>ws</sup>ár- bos</i>	‘rumble’ (stomach)		

## A6. Complete lists of ideophonic coverbs with CVRC template:

<i>bú<sup>rt</sup>' bos</i>	'rock' (baby); 'eat one's fill'	<i>qélt bos</i>	'trot' (horses)
<i>č'é<sup>nt</sup>' bos</i>	'squeeze, milk slowly; spit through one's teeth'	<i>qé<sup>nz</sup> bos</i>	'spin thread, wool'
<i>č'í<sup>rq</sup>' bos</i>	'dislocate; crack' (knuckles)	<i>qé<sup>rt</sup>' bos</i>	'dig, take off a layer of earth'
<i>č'í<sup>rx</sup>' bos</i>	'come apart' (hay; road)	<i>qú<sup>rš</sup>-bos</i>	'slide, slip'
<i>č'<sup>w</sup>á<sup>r</sup>ɸ<sup>s</sup>' bos</i>	'flow out; pour out'	<i>ɸú<sup>r</sup>kɸ' bos</i>	'jam, crush, squash'
<i>č'<sup>w</sup>á<sup>r</sup>χ<sup>s</sup>' bos</i>	'stamp, clap'	<i>s'ínk' bos</i>	'sob'
<i>dá<sup>nk</sup> bos</i>	'pulse' (heart)	<i>t'ánk' bos</i>	'jump'
<i>dá<sup>nk</sup> bos</i>	'be shaken, shake'	<i>t'ír<sup>k</sup>' bos</i>	'speed up'
<i>dá<sup>rq</sup> bos</i>	'knock'	<i>tár<sup>χ</sup> bos</i>	'twist wool'
<i>gá<sup>rt</sup>bos</i>	'be loose' (tooth)	<i>tért bos</i>	'splash, spatter with'
<i>ha<sup>mp</sup> bos</i>	'bark'	<i>wár<sup>χ</sup>' bos</i>	'collapse'
<i>há<sup>rš</sup> bos</i>	'boil' (itr; tr)	<i>wé<sup>l</sup>' bos</i>	'squelch' (water in boots)
<i>hé<sup>rq</sup><sup>s</sup> bos</i>	'belch; hiccough'	<i>wír<sup>q</sup>' bos</i>	'crack (wood)'
<i>hú<sup>r</sup>k' bos</i>	'limp; adjust' (pack)	<i>zá<sup>nk</sup> bos</i>	'stuff, fill'
<i>k'ent' bos</i>	'drip'	<i>žír<sup>q</sup> bos</i>	'brag'
<i>k'é<sup>rš</sup> bos</i>	'wag one's finger; yield'	<i>žír<sup>q</sup>' bos</i>	'break' (wood)
<i>ɸá<sup>ls</sup> bos</i>	'stammer'	<i>χ:ánk' bos</i>	'snore'
<i>ɸú<sup>r</sup>χ<sup>s</sup>' bos</i>	'crawl'	<i>χ:árt' bos</i>	'shave'
<i>lá<sup>nk</sup>' bos</i>	'limp'	<i>χ:<sup>w</sup>s'é<sup>lt</sup>' bos</i>	'rummage'
<i>łér<sup>χ</sup>' bos</i>	'shuffle one's feet' (people)	<i>a<sup>s</sup>ngá<sup>s</sup>' bos</i>	'cry' (baby)
<i>ní<sup>w</sup>bos</i>	'meow'	<i>a<sup>s</sup>nšá<sup>s</sup>' bos</i>	'sneeze'
<i>pá<sup>lc</sup>' bos</i>	'hew, grind smooth'	<i>ɸ'é<sup>m</sup>ɸ'ə bos</i>	'gnaw' (dogs)
<i>pá<sup>rs</sup>bos</i>	'blink; start, twitch'	<i>t'é<sup>nt</sup>'ə bos</i>	'overeat (animals), glut'
<i>pár<sup>χ</sup> bos</i>	'fly'	<i>gú<sup>rq</sup><sup>s</sup>' bos</i>	'swallow without chewing'
<i>pír<sup>q</sup>' bos</i>	'split, crack (wood, dry skin)'	<i>há<sup>nč</sup>' bos</i>	'graze'
<i>pír<sup>χ</sup> bos</i>	'startle' (heart)	<i>χ:ú<sup>r</sup>k' bos</i>	'slurp'
<i>pú<sup>rš</sup> bos</i>	'get stuck in marshy soil'	<i>sú<sup>nt</sup>' bos</i>	'smell'
<i>q'árš bos</i>	'gnash, grit' (teeth)	<i>zím<sup>t</sup> bos</i>	'break out in a rash'
<i>q'<sup>s</sup>árt' bos</i>	'dislocate' (joint)	<i>zá<sup>m</sup>q' bos</i>	'become very cold' (weather)
<i>q'é<sup>nc</sup>' bos</i>	'shear sheep, trim hair'	<i>q'é<sup>m</sup>q'i bos</i>	'huddle up' (from cold)
<i>q'<sup>s</sup>é<sup>nt</sup>' bos</i>	'pinch'	<i>pír<sup>χ</sup> bos</i>	'take fire; get burnt' (food)
<i>q'<sup>w</sup>ank' bos</i>	'slam' (door)	<i>q'á<sup>nc</sup>' bos</i>	'become sour'
<i>q'<sup>w</sup>ánt' bos</i>	'say, order sharply'	<i>wá<sup>rt</sup> bos</i>	'throb' (pain)
<i>q'<sup>w</sup>ár<sup>t</sup>' bos</i>	'hold with an iron hand'	<i>hín<sup>q</sup>' bos</i>	'repent and reform'
		<i>hí<sup>t</sup> bos</i>	'hug'

## A7. Complete lists of ideophonic coverbs with other templates:

CV	<i>q'ėbus</i>	'butt; stick in, thrust'	<i>á'?</i>	<i>bos</i>	'to call, tell, ask, invite'
	<i>qėbus</i>	'dance'	<i>ė'mmus</i>		'cry'
	<i>bá:bus</i>	'talk'	<i>úw bos</i>		'howl'
	<i>χábus</i>	'sing' / 'play'	VCV	<i>út'u bos</i>	'refuse'
	<i>húbus</i>	'growl'		<i>uńú bos</i>	'cough'
	<i>rá' bos</i>	'croak; weep' (ironic)	CVCV	<i>hačá bos</i>	'carry on one's back'
	<i>húbus</i>	'blow' (wind or person)		<i>deré bos</i>	'separate lambs'
	<i>tú bus</i>	'spit'		<i>hus:ú bos</i>	'set on, incite, stir up'
	<i>χ:úbus</i>	'sip smth hot'	VRC	<i>ú'nš bos</i>	'blow one's nose'
	<i>c'ábus</i>	'drink (cold)'	CVCVR	<i>đítan bos</i>	'caress' (a child)
VC	<i>áč bos</i>	'clear throat and spit'			

## A8. Complete lists of ideophonic coverbs with reduplication:

CVC	<i>c'ėc' bos</i>	'drizzle'
	<i>zız bos</i>	'buzz'
	<i>bıı bos</i>	'moo, bellow'
CVCV	<i>čúčə bos</i>	'wash' (oneself or clothes)
	<i>hıhı bos</i>	'whinny'
	<i>gúkə bos</i>	'scratch, to itch'
	<i>č'w'ėč'ə bos</i>	'nibble'
	<i>χ:áč:u bos</i>	'eat food made of <i>dac'on</i> '
	<i>χ:úχ:u bos</i>	'saw'
	<i>sése bos</i>	'roast grain'
	<i>súsie bos</i>	'coat, smear'
CVRCV	<i>t'ėnt'ə bos</i>	'overeat (animals), glut (people)'
	<i>gėrgi bos</i>	'roll out'
	<i>gėrkıbos</i>	'rock' (cot)
	<i>k'ėrk'ə bos</i>	'go curly' (hair)
	<i>q'w'ėrq'ə bos</i>	'turn (smth), squeeze'
	<i>š:w'ėlš:i bos</i>	'push, cram, stuff in'
	<i>β'ėmβ'ə bos</i>	'gnaw' (dogs)
	<i>β'ėrβə bos</i>	'break' (crockery)
	<i>zėrzi bos</i>	'fill to the brim'
CVRCVR	<i>k'úrk'ur bos</i>	'purl, babble, flow' (spring); 'fall asleep'

	<i>č'irq'ir</i>	'chirp'
	<i>dúmɤum bos</i>	'mumble, grumble'
	<i>búrɤ'ur bos</i>	'grumble, mumble'
CVC-CVC	<i>č'á'p'-q'ap' bos</i>	'exchange fire, trade shots' cf. <i>č'á'pus</i> 'burst, explode; shoot'
	<i>š'ipq'ip bos</i>	'hurry sheep up'
	<i>š:'wít'q<sup>w</sup>'it' bos</i>	'whistle softly' (melody)
	<i>qécšec bos</i>	'stroll, walk'
	<i>šúšq'us bos</i>	'gossip'
	<i>há'hčit bos</i>	'pant, puff'
other	<i>urí'ʔiʔu<sup>s</sup> bos</i>	'crow' (rooster)