Chapter 2. Essentials of Archi grammar

Marina Chumakina, Oliver Bond & Greville G. Corbett
University of Surrey

CHAPTER 2. ESSENTIALS OF ARCHI GRAMMAR	1
2.1 LANGUAGE BACKGROUND	2
2.2 PHONOLOGY	3
2.2.1 THE VOWEL INVENTORY	3
2.2.2 THE CONSONANT INVENTORY	3
2.3 FEATURE SPECIFICATION AND EXPONENCE	5
2.3.1 AGREEMENT FEATURES	5
2.3.2 EXPONENTS OF AGREEMENT	7
2.4. THE MORPHOLOGY AND SYNTAX OF ARGUMENTS	10
2.4.1 GRAMMATICAL CASES	10
2.4.2 SPATIAL CASES	13
2.4.3 SYNTACTIC PROPERTIES OF ARGUMENTS	15
2.5 THE PARADIGMATIC STRUCTURE OF VERBS	20
2.5.1 FINITE VERB FORMS	20
2.5.2 NON-FINITE VERB FORMS	22
2.6 CONCLUSION	25

TABLES

TABLE 2.1. THE ARCHI VOWEL INVENTORY	3
TABLE 2.2. THE ARCHI CONSONANT INVENTORY	4
TABLE 2.3. NOUN STEMS	10
TABLE 2.4. GRAMMATICAL CASES	11
TABLE 2.5. LOCALIZATION CASES	13
TABLE 2.6. DIRECTIONAL CASES	14
TABLE 2.7. VERBAL STEMS, GENDER IV SINGULAR	21
TABLE 2.8. GENDER MARKING IN THE VERB AXAS 'LIE DOWN, SLEEP'	22
TABLE 2.9. ATTRIBUTIVE STEMS OF AXAS 'LIE DOWN, SLEEP'	24

2.1 Language background

Archi is a Lezgian language (ISO 639-3: aqc) spoken by about 1200 people living in six settlements situated within walking distance of each other in the highlands of Dagestan (Russian Federation). The name “Archi” is used by the Archi people and their neighbours to refer either to the whole group of settlements or just to the central (and largest) village. The settlements are situated in valleys along a mountainous river Khata (four settlements) and its tributaries (two settlements); all Archi settlements are over 2000 meters above sea level. Traditionally, Archi people breed sheep; until recently they also grew crops (barley, spelt and wheat), but this has been in a decline since all the land the Archi own is on steep slopes and is hard to work.

The number of Archi people has been steadily growing since the first records of their population: von Uslar (1890) reported 500 Archi speakers; Dirr (1908) observed there were about 800 Archi speakers (Kibrik, Kodzasov, Olovjannikova & Samedov 1977a: 5), in 2004 the local administration quoted the number of Archi as 1237 people (Marina Chumakina 2004, field records). Currently, children living in all six settlements are monolingual in Archi until they are about 10 years old; the majority of adults are bilingual in Russian, some are trilingual in Russian and Avar, some speak Lak as well (Avar and Lak are two large Dagestani languages spoken in the villages close to Archi). Archi has no contact with other Lezgian languages, and has preserved some archaic features which other languages of the group have lost (for instance, all other Lezgian languages have lost lateral consonants, which are still represented in Archi). While some Lezgian languages have lost the gender system or exhibit a reduced number of gender values, Archi has preserved the Proto-Lezgian four gender system, a feature which is still typical of the wider Nakh-Dagestani family beyond Lezgian.

It is likely that the unique position of Archi – as a well-preserved small language which lost contact with its closely related languages a long time ago – helped to determine the amount of linguistic attention it has received since the end of the 19th century. The first short but accurate grammatical sketch of Archi was provided in the late 19th century by von Uslar (1890). This was followed by two relatively large descriptions of Archi by Dirr (1908) and Mikailov (1967). In 1977, a detailed three-volume grammatical description produced by Kibrik and his colleagues was published; this was supplemented with 40 texts (about 2000 sentences) and a 3000 item dictionary (Kibrik et al. 1977a, b, Kibrik 1977a, b).

In 2007, within the project *Five Languages of Eurasia*, these 40 texts were augmented with interlinear glosses and made available online (Kibrik, Arkhipov, Daniel & Kodzasov 2007). In the same year, the Surrey Morphology Group completed a project to compile a Archi-Russian-English dictionary, in print and digital formats (Chumakina, Brown, Corbett & Quilliam 2007a, b, 2008a, b), which enlarged the previous dictionary by 1,500 lexical entries; each lexical entry in the digital versions of the dictionary contains several word forms providing all necessary morphological information. Each form is supplied with a sound file. There are also digital pictures for prominent cultural objects.

All of this work has made Archi one of the best-described, small endangered languages of the Caucasus. However, while its phonology, morphology and lexis are well described, until now much less was known about the syntax of Archi.

2.2 Phonology

As a typical member of the Nakh-Daghestanian family, Archi has a remarkably rich phonological inventory, with 70 consonantal and 11 vocalic phonemes. The Archi phonetic and phonological systems are described in detail by Kodzasov (1977) and Kibrik (1994); here we give a brief introduction and provide the information necessary to understand the examples presented in this volume.

2.2.1 The vowel inventory

The Archi vowel system is relatively simple. Vowels are produced in six different places of articulation, and five “full” vowels (i.e. not schwa) occur in phonemically contrastive long and short variants, as shown in Table 2.1. Only the full vowels can be stressed; schwa can occur only in an unstressed position.

Table 2.1. The Archi vowel inventory

	FRONT	CENTRAL	BACK
HIGH	i / i:		u / u:
MIDDLE	e / e:	ə	o / o:
LOW		a / a:	

The contrast in length is phonological; it contributes to lexical information and has the potential to distinguish between minimal pairs. For example, the adverbs *ɸiniš* ‘from there higher than the speaker’ and *ɸini:š* ‘from there higher and far away from the speaker’ are distinguished only by the length of the vowel. Length contrasts can also be used non-phonemically for expressive purposes.

2.2.2 The consonant inventory

The richness of the Archi consonantal system is determined by several factors, as demonstrated in Table 2.2. First of all, the place of articulation includes nine points, with many unusual phonemes (from a European point of view) produced at the back of the vocal tract, including uvular, pharyngeal and laryngeal consonants. Archi also contrasts plain and ejective consonants, and there are two uncommon manners of articulation, namely lateral fricatives and lateral affricates. Archi is the only Lezgi language which has preserved this archaic distinction. Although neighbouring Avar also has lateral fricatives, the Archi has a richer lateral inventory, including the lateral affricate phoneme /kɬ/ unattested in Avar. While a large number of places and manners of articulation play a role in determining the size of the consonant inventory, its richness is considerable augmented by secondary articulations realized in several different ways, all of which are typical for this language family.

A contrast between ejective and non-ejective consonants is maintained throughout most of the obstruent system; only fricatives (including lateral fricatives) do not have ejective counterparts. Ejectives are voiceless consonants pronounced with a simultaneous closure of both the primary place of articulation and the glottis. Since only voiceless consonants can have this manner of articulation, it is natural that the sonorants /r, l, m, n, w, j/ do not have ejective variants. The absence of this feature in

the fricatives is also rather common in the region; of the other Daghestanian languages only two Andi languages (Bagwalal and Chamalal) and one dialect of Avar (Kusur) have an ejective contrast in the fricatives, e.g. /s/ vs. /s'/ in Bagwalal. Ejective consonants are indicated by an apostrophe: C'.

Table 2.2. The Archi consonant inventory

	BILABIAL		DENTAL		ALVEOLAR		PALATAL	PALATO- VELAR		VELAR		UVULAR		PHARYNGEAL	PHARYNGEAL
PLOSIVE	p p:	b	t t:	d						k k:	g	q		ʕ	ʔ
			t ^w t:	d ^w						k ^w k:	g ^w	q ^w			
EJECTIVE PLOSIVE	p'		t'							k'		q'			
										k' ^w		q' ^w			
NASAL		m		n											
TRILL				r											
FRICATIVE			s s:	z	š š:	ž		ɬ ɬ:	ɮ			χ χ:	ʁ	ħ	h
			s ^w s:	z ^w	š ^w š:	ž ^w		ɬ ^w ɬ:				χ ^w χ:	ʁ ^w		
AFFRICATE			c		č			kɬ							
			c ^w		č ^w			kɬ ^w							
EJECTIVE AFFRICATE			c'		č'			kɬ'							
			c' ^w c:		č' ^w č:			kɬ' ^w							
APPROXIMANT		w		l			j								

Three types of articulation deserve discussion. First, the phonological status of the contrast between fortis (C:) and lenis consonants in Daghestanian languages, and especially in Archi, has been a matter of disagreement in the literature. Kodzasov (1976, 1977, 1990) proposes that plosives, affricates and fricatives in Archi show a contrast of strength, whereas Ladefoged (1996) argues that length, not strength (or intensity) determines this difference. In Archi, the phonological contrast between fortis and lenis is only relevant for voiceless consonants. Note, however, that this additional articulation is not always phonological: it can be a positional variant (thus, ejective affricates in the intervocalic position are always fortis) or a stylistic feature (when the speaker wants to emphasize a word, she can make the consonant fortis). In this book, we mark only fortis phonemes and use the same notation for fortis consonants as used by the IPA for long vowels: C:.

Labialization (C^w) is another secondary articulation which affects the production of consonants only. Naturally, only non-labial consonants can have this property. In Archi, labialization can be phonemically contrastive, but this is not always the case and the

phonological status of labialization needs further research. For some lexical items, the use of labialized consonants is in free variation with plain forms (thus, the noun *š^wik* ‘heel’ has a variant *šik*), whereas in the majority of cases, labialization is obligatory. It is worth noting that a labialization contrast can be used to indicate the realization of gender and number agreement. Under certain conditions, the gender I singular prefix *w-* is realized through labialization of the first consonant of the verb stem (as in *q^wa* ‘he came’).

Finally, pharyngealisation (*C^ʕ*), a secondary articulation by which the epiglottis is constricted during articulation of the sound, affects both consonants and vowels. Acoustically, it is distinguished from plain consonants by a lower frequency of the third and a higher frequency of the first formant (Ladefoged & Maddieson 1996: 307). In Archi, it is a phonological process, affecting stressed vowels and uvular consonants, but it may also have an effect on the formants of any of the vowels within a word with a pharyngealized sound. We follow the IPA guidelines, transcribing pharyngealisation with a superscript reversed glottal stop: *C^ʕ*, and follow Kibrik et al. (1977a) in our placement of this symbol. If there is a uvular consonant affected by pharyngealisation, the diacritic directly follows the consonant symbol (e.g. *boχ^ʕ* ‘Caucasian goat’; *daq^ʕa* ‘she came’). If the first vowel of the word is stressed, indicated here with an acute accent (e.g. *gé^ʕngit’i* ‘bell’), the symbol is placed after the stressed vowel symbol, while if the second vowel is stressed, pharyngealization is marked on both vowels (e.g. *a^ʕrá^ʕč’* ‘reasonably big’).

2.3 Feature specification and exponence

Agreement involves a systematic covariation between the morphosyntactic features of a controller and their morphological realisation on a target. Here we outline essential facts about the feature values in the Archi number and gender systems (§2.3.1), and give a synopsis of the morphological resources employed to realize agreement across different word classes (§2.3.2).

2.3.1 Agreement features

There are two uncontroversial agreement features in Archi: number and gender. The presence of the person feature in Archi is more controversial, as this feature does not have a unique means of realization (see Chumakina, Kibort & Corbett 2007, and Corbett 2012: 239-252 for discussion). The number feature has two values: singular and plural. Gender is a lexical feature of nouns (which function as agreement controllers), and an inflectional feature of all other parts of speech (functioning as agreement targets). Other than nouns and nominal adjectives, every part of speech in Archi has at least one member which exhibits agreement. The gender system in Archi is an example of a typical Nakh-Daghestanian system consisting of four genders, where genders I and II denote male and female humans respectively. All other nouns are distributed among genders III and IV. Although there are some regularities in the semantics of gender assignment, the distribution of non-human nouns among genders III and IV is not fully predictable. Equally, the phonological form alone does not allow us to predict the gender of a noun (Chumakina & Corbett 2015). Examples of nouns of each of the four genders (singular and plural forms) are given in (1).

(1)	I	bošor	‘man’	III	χ ^ˈ on	‘cow’
		kʰele	‘men’		buc ^ˈ i	‘cows’
		dozja	‘grandfather’		no ^ˈ š	‘horse’
		dozja-t:u	‘grandfathers’		no ^ˈ š-or	‘horses’
	II	ʔonnol	‘woman’	IV	nokʰ	‘house’
		χom	‘women’		nokʰ-dor	‘houses’
		doba	‘grandmother’			
		doba-t:u	‘grandmothers’			

The gender of a noun is revealed by the agreement form of its targets, as demonstrated by the forms of the agreeing attributive modifiers in (2).

(2)	I	be:χut:u	bošor	‘tall man’
	II	be:χut:u-r	ʔonnol	‘tall woman’
	III	be:χut:u-b	χ ^ˈ on	‘tall cow’
	IV	be:χut:u-t	nokʰ	‘tall house’

This four-way distinction in gender is neutralized in the plural to a two-way opposition between genders I and II (comprising humans), as shown in (3a-b), and genders III and IV (comprising non-humans), shown in (3c-d).¹

(3)	a.	kʰele	ba-q ^ˈ a	b.	χom	ba-q ^ˈ a
		man(I).PL.ABS	I/II.PL-come.PFV		woman(II).PL.ABS	I/II.PL-come.PFV
		‘Men came.’			‘Women came.’	
	c.	buc ^ˈ i	q ^ˈ a	d.	motol-um	q ^ˈ a
		cow(III).PL.ABS	[III/IV.PL]come.PFV		goat.kid(IV)-PL.ABS	[III/IV.PL]come.PFV
		‘Cows came.’			‘Goat kids came.’	

If a noun phrase functioning as the controller of agreement refers to a group that includes nouns from genders I or II and genders III and/or IV, plural agreement is always as with humans (genders I/II), as in (4). For more on this see Chapter 4, §4.2.1.

(4)	χo:m=u	buc ^ˈ i=wu	ba-q ^ˈ a
	woman(II).PL.ABS=and	cow(III).PL.ABS=and	I/II.PL-come.PFV
	‘Women and cows came.’		

Such an opposition in the plural between humans and non-humans is common in Nakh-Daghestanian languages. We see it in other Lezgcic languages (Kryz, Tsakhur, Khinalugh),

¹ In interlinear glosses, parentheses indicate an inherent featural value of an item, such as the gender of a noun. Square brackets indicate that there is no specific segment that corresponds to the featural description provided, such that this grammatical information is realized through the lack of any inflection.

in Dargi, and in some Andic languages (Bagwalal, Tindi, Akhvakh). This distinction is present independently of the structure of the gender feature since each of these Andic languages distinguishes three genders in the singular rather than four as Archi does. The realization strategies used for the gender feature can also vary in the plural; some languages (such as Bagwalal) have a special agreement marker for human plural whereas others (especially Lezgif languages) behave like Archi in that the gender realizations in the plural are syncretic with some realizations in the singular.

2.3.2 Exponents of agreement

In Archi, the morphological exponence of agreement varies across different types of target. Agreement can be realized by a prefix, infix or suffix. (For detailed discussion of this see Chumakina & Corbett 2015.) The type of exponent corresponds in some measure to the different parts of speech. Here we provide a brief overview of agreement across different lexical classes, to allow the reader to follow the interlinear glossing of the examples.

Prefixes

Prefixes occur as agreement exponents on some verbs (Chapter 3, §3.2.1) and some pronouns (Chapter 3, §3.2.3), as in (5) and (6) respectively.

(5) Verb *eq:’as* ‘bite’, perfective stem

	SG	PL
I	w-eq:’u	b-eq:’u
II	d-eq:’u	
III	b-eq:’u	eq:’u
IV	eq:’u	

(6) First person singular pronoun, dative case

	SG	PL
I	w-ez	b-ez
II	d-ez	
III	b-ez	ez
IV	ez	

Each of these paradigms has the same structure. There are prefixes distinguishing genders I, II and III in the singular, with no agreement morphology realized on the gender IV singular form. There is syncretism between the gender III singular form and the gender I/II plural form. Similarly the gender IV singular, with no overt marking, is syncretic with the gender III/IV plural form.

Under certain conditions, an epenthetic vowel appears between the prefix and the stem. For instance, this occurs in the paradigms of verbs that have a consonant-initial monosyllabic perfective stem or a consonant-initial polysyllabic perfective stem where stress

falls on the second syllable. For instance, the perfective stem *c'o* ‘melt’ is realized as *bo-c'o* when controlled by a gender III singular argument. Although the epenthetic vowel is unstressed, and thus realized as [ə], we follow the orthographic conventions established in Kibrik et al. (1977a), and represent the schwa with the same vowel as the stressed vowel of the stem. See Chumakina & Corbett (2015) for a full discussion of the distribution of agreement exponents on Archi verbs.

Infixes

Agreement is realized by infixes on some verbs (Chapter 3, §3.2.1), as in (7), where the paradigm shape resembles that seen with the prefixal agreement exponents above.

(7) Verb *caχas* ‘drop, fall’, perfective stem

	SG	PL
I	cu<w>χu	caχu
II	ca<r>χu	
III	caχu	caχu
IV	caχu	

The verbs in (5) and (7) use agreement prefixes and infixes respectively throughout their whole paradigm. However, there are also verbs which exhibit mixed behaviour in this respect, depending on the type of verb stem (see §2.5 for discussion of the paradigmatic structure of verbs). Such verbs bear prefixes on the imperfective and imperative stems and infixes on their perfective and finalis stems. The paradigm in (8) shows an example of a verb of this ‘mixed’ type.

(8) Verb *akłas* ‘put through’

	PERFECTIVE		IMPERFECTIVE	
	SG	PL	SG	PL
I	u<w>kłu	akłu	w-arkłar	b-arkłar
II	a<r>kłu		d-arkłar	
III	akłu	akłu	b-arkłar	arkłar
IV	akłu		arkłar	

	FINALIS		IMPERATIVE	
	SG	PL	SG	PL
I	u<w>kłas	akłas	w-akła	b-akła
II	a<r>kłas		d-akła	
III	akłas	akłas	b-akła	akła
IV	akła-s		akła	

Some pronouns, all adverbs with the potential to agree, and the emphatic clitic =*ejt'u* also have infixal exponents of agreement, as illustrated in (9-11). Unlike with verbs, for these targets the gender IV singular form and the syncretic III/IV gender plural forms have an overt agreement exponent, namely <*t'*>.

(9) First person plural inclusive pronoun, genitive case

	SG	PL
I	la<w>u	lau
II	la<r>u	
III	lau	la<t'>u
IV	la<t'>u	

(10) Adverb *k'ellej<t'>u* 'entirely'

	SG	PL
I	k'ellej<w>u	k'elleju
II	k'ellej<r>u	
III	k'elleju	k'ellej<t'>u
IV	k'ellej<t'>u	

(11) Emphatic clitic =*ej<t'>u*

	SG	PL
I	=ej<w>u	=eju
II	=ej<r>u	
III	=eju	=ej<t'>u
IV	=ej<t'>u	

Suffixes

Suffixes occur as exponents of agreement on demonstratives (§3.1.1) and attributives (§3.1.2) only. An example of the agreement paradigm of an attributive is given in (12).

(12) Attributive *haɁdu* 'real, reliable'

	SG	PL
I	haɁdu-(w)	haɁd-ib
II	haɁdu-r	
III	haɁdu-b	
IV	haɁdu-t	

Note that attributives distinguish four gender values in the singular only, with no differentiation of gender in the plural. The gender I singular suffix -w surfaces only if there is a vowel following it. This gives rise to a paradigm structure in which the gender I singular form has a variant with no overt morphological marking.

2.4. The morphology and syntax of arguments

Archi has an elaborate system of case used to indicate the grammatical function of verbal arguments. Here we set out the morphological characteristics of grammatical cases, (§2.4.1), spatial cases (§2.4.2) and the morphosyntactic properties that help distinguish between the grammatical functions of noun phrases (§2.4.3).

2.4.1 Grammatical cases

The absolutive, ergative, dative and genitive cases are used to differentiate core arguments. Case is expressed morphologically, either by suffixes that attach to the head noun or pronoun of a verbal argument, or through the use of a distinct nominal stem. Following Kibrik (1977a: 9-50), we distinguish between four different noun stems: direct singular, direct plural, oblique singular and oblique plural. Table 2.3 presents the four different stems of the nouns *baʕk* ‘ram’ and *ʔonnol* ‘woman’.

Table 2.3. Noun stems

	<i>baʕk</i> ‘ram’		<i>ʔonnol</i> ‘woman’	
	SG	PL	SG	PL
DIRECT	<i>baʕk</i>	<i>baʕkʔur</i>	<i>ʔonnol</i>	<i>ʔom</i>
OBLIQUE	<i>beʕkʔiri</i>	<i>baʕkʔurʕaj</i>	<i>ʔanna</i>	<i>ʔamaj</i>

The direct stems of a noun always coincide with their absolutive case form, and for nearly all nouns there is a one-to-one correspondence between its oblique stems and the forms used for the ergative case. The oblique stem is also used as the base to which other case markings are added, including the spatial cases (§2.4.2). The case endings are invariant and do not change in form according to the number value or morphological regularity of the stem. This is demonstrated in Table 2.4, which exemplifies the formation of the core cases, along with those used in a range of specific non-spatial functions. As an illustration of the invariant nature of the non-spatial case suffixes, compare the case forms of morphologically regular *baʕk* ‘ram’ whose plural is realized by the suffix *-ur*, with the forms built from the irregular, suppletive plural stem *ʔom* ‘women’.

Although it may appear as though the ergative stems given in Table 2.4 do not closely match the phonological shape of the (oblique) stem used as the base for the other non-absolutive forms, the change from stem final /aj/ (in the ergative) to /e/ on the other inflected forms results from a conditioned rule: stem final /aj/ (where /j/ is quite weak and is not always audible) gets reduced to /e/ before case inflection.

For a small number of lexemes, the oblique stem and ergative case form do not correspond to one another. For instance, the direct singular stem *buwa* of the noun ‘mother’ is also used as the oblique singular stem, while its ergative singular form is *buwamu*.

Table 2.4. Grammatical cases

	<i>ba^ʃk'ram'</i>		<i>ʔonno^ʃl 'woman'</i>	
	SG	PL	SG	PL
ABSOLUTIVE	ba ^ʃ k'	ba ^ʃ k'ur	ʔonno ^ʃ l	χom
ERGATIVE	be ^ʃ k'iri	ba ^ʃ k'ur-čaj	ʔanna	χam-aj
GENITIVE	be ^ʃ k'iri-n	ba ^ʃ k'ur-če-n	ʔanna-n	χem-e-n
DATIVE	be ^ʃ k'iri-s	ba ^ʃ k'ur-če-s	ʔanna-s	χem-e-s
CAUSAL	be ^ʃ k'iri-š:i	ba ^ʃ k'ur-če-š:i	ʔanna-š:i	χem-e-š:i
COMITATIVE	be ^ʃ k'iri-ʔu	ba ^ʃ k'ur-če-ʔu	ʔanna-ʔu	χem-e-ʔu
COMPARATIVE	be ^ʃ k'iri-χur	ba ^ʃ k'ur-če-χur	ʔanna-χur	χem-e-χur
PARTITIVE	be ^ʃ k'iri-q ^ʃ iš	ba ^ʃ k'ur-če-q ^ʃ iš	ʔanna-q ^ʃ iš	χem-e-q ^ʃ iš
SIMILATIVE	be ^ʃ k'iri-q ^ʃ di	ba ^ʃ k'ur-če-q ^ʃ di	ʔanna-q ^ʃ di	χem-e-q ^ʃ di
SUBSTITUTIVE	be ^ʃ k'iri-kʔena	ba ^ʃ k'ur-če-kʔena	ʔanna-kʔena	χem-e-kʔena

Turning now to the use of the core cases, the absolutive case form (based on the direct stem) is typically used to express the only argument of an intransitive verb (S), as with *dozja* ‘grandad’ in (13) and the patient-like argument of a transitive verb (P), as with *ħawan* ‘animal’ in (14). In both instances, the absolutive argument also controls agreement on the predicate *uq^ʃali iwdili* ‘went’ in (13) and *buq^ʃuli* ‘slaughtered’ in (14).²

- (13) ulu dozja uq^ʃa-li i<w>di-li šat:a-ši
 I.SG.1PL.EXCL.GEN grandad(I)[SG.ABS] I.SG.go.PFV-CVB <I.SG>be.PST-EVID Chittab-ALL
 ‘Our grandad went to Chittab.’

- (14) ułmu os ħawan b-uq^ʃu-li
 shepherd(I).SG.ERG one animal(III)[SG.ABS] III.SG-slaughter.PFV-EVID
 ‘The shepherd slaughtered one animal.’

Ergative case forms are used to mark the agent-like argument of a transitive verb (A), such as *ułmu* ‘shepherd’ in (14). The ergative case can also be used to mark an instrument, such as *gullali* ‘bullet’ in (15).³

- (15) wa-s marzu-t kʔan-kul gulla-li
 2SG.OBL-DAT clean.ATTR-IV.SG love-NMLZ(IV)[SG.ABS] bullet(III)-SG.ERG
 ača-s kʔan han-er?
 [IV.SG]kill-FIN want what-RPRT
 ‘Do you want to kill our clean love with a bullet?’ (T1: 37)

² Absolutive case also occurs on agent-like A arguments in Biabsolutive Constructions, exemplified in §2.4.3.2.

³ Numbers after example translations refer to their identifiers in the online collection of Archi texts (Kibrik, Arkhipov, Daniel & Kodzasov 2007).

We refer to clauses in which there is an ergative subject and absolutive object as Transitive Constructions (see §2.4.3 for discussion of subject diagnostics). While highly transitive, perfective verbs in Archi always exhibits ergative-absolutive case alignment, dative, genitive and absolutive cases are also employed to encode A arguments in some semantico-syntactic environments, as illustrated by the dative subject in (15).

Dative case usually encodes the recipient or the beneficiary in Ditransitive Constructions and serves as a case for coding the complements of various postpositions. For instance, (19) shows a recipient (*misgintilčes* ‘poor people’) in the dative case.

- (16) χ uzen-ni-n hekʔəna misgin-til-če-s kʔo-li
 master(I)-SG.OBL-GEN thing(IV)[SG.ABS] be.poor-PL-PL.OBL-DAT [IV.SG]give.PFV-EVID
 ‘(He) gave master’s thing(s) to poor people.’ (based on T3: 66)

Dative case also encodes the experiencer of a verb of emotion, perception and some verbs of cognition in Affective Constructions, illustrated in (15) and (17-19).⁴ In constructions of this kind, we distinguish between a dative subject and an absolutive object.

- (17) to-w-mi-s Ajša d-ak:u
 that-I.SG-SG.OBL-DAT Aisha(II)[SG.ABS] II.SG-see.PFV
 ‘He has seen Aisha.’

- (18) buwa-s wit χ° ošon kʔ’an
 mother(II)[SG]-DAT 2SG.GEN dress(III)[SG.ABS] like
 ‘Mother likes your dress.’

- (19) Rasul-li-s wit ušdu sini
 Rasul(I)-SG.OBL-DAT 2SG.GEN brother(I)[SG.ABS] know
 ‘Rasul knows your brother.’

Finally, the genitive case is found on the possessor in Possessive Constructions, formed with the verb *i* ‘be’, as in (20).

- (20) ʃali-n duχriq[˘] χ° on b-i
 Ali(I)[SG]-GEN village(IV).IN cow(III)[SG.ABS] III.SG-be
 ‘Ali has a cow in the village.’

The genitive case is more typically found on modifiers in noun phrases, as in (21). In such constructions the genitive modifier precedes the head noun.

⁴ We use the term ‘affective construction’ to describe this type of alignment following Comrie & van den Berg (2006).

- (21) arsi-n q^ʕot'ol
 silver(IV)[SG]-GEN belt(IV)[SG.ABS]
 'silver belt'

Genitive subjects are found in dependent clauses headed by a verbal noun (traditionally called a masdar in Caucasian linguistics) and alternate freely with absolutive subjects fulfilling the same function (see §2.5.2 for examples and discussion).

2.4.2 Spatial cases

In addition to the case forms outlined in Table 2.4, Archi nouns have a set of spatial case forms. These consist of two elements: a localization suffix and a directional case suffix. The localization suffix attaches to the oblique stem of a noun. When present, the directional case suffixes follow the localization case marker.

There are five types of localization suffixes in Archi, illustrated in Table 2.5. The most frequent suffix marks IN-localization. Each localization suffix (except IN-localization) has two forms. The first is used in word final position while the other occurs before the directional case suffix.

Table 2.5. Localization cases

EXPONENT	GLOSS	EXAMPLE
-a	IN 'in the hollow space'	biq ^w -m-a place(IV)-SG.OBL-IN 'in a place'
-q ^ʕ / -q ^ʕ a	INTER 'in the filled space'	ʔenne-q ^ʕ water(IV).SG.OBL-INTER 'in the water'
-t/-t:i	SUPER 'on'	bel-li-t spade(III)-SG.OBL-SUP 'on a spade'
-kʔ / -kʔ:i	SUB 'under'	č'ele-li-kʔ stone(III)-SG.OBL-SUB 'under a stone'
-r/ -ra-	CONT 'in close contact with, next to'	č'ele-li-r stone(III)-SG.OBL-CONT 'next to a stone'

We follow Kibrik (1977a: 60) in distinguishing six directional cases, although we note that the essive is not strictly a directional case (as it means 'be at/in the location') and this featural specification does not have an overt realisation.⁵ In Table 2.6 we give the labels used for these cases, with their rough English equivalents.

⁵ While we do not adopt this notation device here, Kibrik (1977a) postulates a zero suffix for the essive; his analysis makes all Archi spatial forms structurally similar in that they each consist of an oblique stem, localization suffix and directional case suffix.

Table 2.6. Directional cases

EXPONENT	GLOSS	EXAMPLE
-š	ELATIVE 'from the location'	<i>q^wen-ni-ti-i-š</i> cliff(IV)-SG.OBL-SUP-EL 'from the cliff (lit. 'from on the cliff)'
-k	LATIVE 'to the location'	<i>bošor-mi-ra-k</i> man(I)-SG.OBL-CONT-LAT 'to the man (lit. 'to near the man)'
-ši	ALLATIVE 'towards the location'	<i>neq:^wi-ti-i-ši</i> earth(IV).SG.OBL-SUP-ALL 'to the land (lit. 'to on the land)'
-kəna	TERMINATIVE 'to the location and no further'	<i>darc'-li-ra-kəna</i> post-SG.OBL-CONT-TERM 'up to the post'
-χut	TRANSLATIVE 'through the location'	<i>dunil-li-ti-i-χut</i> sky-SG.OBL-SUPER-TRANS 'in (through) the sky'

The following examples illustrate the usage of the spatial forms in spontaneous texts. In (22), the super-locational suffix is followed by the lative-directional suffix, while in (23), where there is no over directional suffix, the conveyed spatial configuration has an essive interpretation.

- (22) daki un za-ti-i-k b-e^š⟨r⟩š:u-r
 why 2SG.ABS 1SG.OBL-SUPER-LAT III.SG-⟨IPFV⟩run-IPFV
 'Why are you running towards me?' (Bear story: 10)

- (23) k^wač'-ur-če-t o⟨b⟩sd-er žu-s harak
 paw(III)-PL-PL.OBL-SUPER ⟨III.SG⟩stand.PFV-RPRT REFL.I.SG.OBL-DAT in.front
 '(Bear came)...and allegedly stood on its (hind) paws in front of him.'
 (Bear story: 6)

The spatial case forms are used in two main environments: (i) when their use is determined by their inherent semantics, as in (22) and (23), and (ii) when the spatial case form of a noun encodes the argument of a verb (such as verb of speech or emotion) or acts as a complement of a postposition. For instance, in (24) the verb *q^šaras kes* 'get angry' takes its argument in the super-lative case, while the verb *bos* 'say to somebody, ask' in (25) takes the addressee in the cont-allative.

- (24) buwa-mu ja-r-mi-ti-i-k q^šara-s: e⟨r⟩χdi
 mother(II)-SG.ERG that-II.SG-SG.OBL-SUP-LAT angry-FIN ⟨II.SG⟩become.PFV
 '...mother got angry with her.' (Sisters: 73)

- (25) ju-w-mi-r-ši bo-li un daki w-eˀ-t'u
 that-1.SG-SG.OBL-CONT-ALL say.PFV-EVID 2SG.ABS why 1.SG-come.POT.NEG-NEG
 ‘They asked him “Why won’t you come?”’ (Mammadibir: 43)

This type of spatial case system, where regular case endings are attached agglutinatively to (irregular) stems is typical of Nakh-Daghestanian languages. The multitude of spatial cases, used both semantically and grammatically, make up a large proportion of the values in the large case inventories for which these languages are famous.

2.4.3 Syntactic properties of arguments

For the most part, establishing the grammatical function of different arguments in Archi can be reliably achieved using case-marking (as discussed in §2.4.1 and §2.4.2), predicate agreement and/or constituent order as diagnostics. Here we discuss constituent order (§2.4.3.1) and a range of evidence for determining the syntactic status of ergative and absolutive arguments (§2.4.2.2). Syntactic diagnostics for distinguishing subject and objects are discussed in §4.3.3.

2.4.3.1 Constituent order

As is often the case with languages with ergative alignment, the basic constituent order in the Archi clause is APV, as exemplified in (26).⁶

- (26) zari buwo: qˀwˀarbikʔ-mul kunne
 1SG.ERG mother(II).VOC sweet(IV)-PL.ABS [III/IV.PL]eat.PFV
 ‘I, mother, ate the sweets.’ (Sisters: 81)

APV constituent order is characteristic of sentences without topicalized or (contrastively) focussed constituents, and it is rather frequent, especially in stories (as opposed to conversations). However, other constituent orders are also possible, such as VAP, illustrated in (27), and PVA, exemplified in (28).

- (27) kʎo-qi zari ja-t:=u
 [IV.SG]give-POT 1SG.ERG this-IV.SG=and
 ‘I will give her that too...’ (Sisters: 58)

- (28) akʔ oχ:a-li oqˀa gatu-li
 meat(IV)[SG.ABS] [IV.SG]steal.PFV-CVB [IV.SG]leave.PFV cat(III)-SG.ERG
 ‘...the cat has stolen the meat.’ (Joke: 6)

In dependent clauses headed by non-finite verb forms (such as a finalis verb-forms, converbs, or masdars), the constituent order is almost always verb-final (see §2.5.2 for discussion of non-finite verbs).⁷ Thus, in (29) there are four clauses, three of which are

⁶ The text titles refer to the texts collected during Chumakina’s fieldwork in 2004-2012.

⁷ Archi has a range of non-finite verb forms. Recall that the term “masdar” is traditionally used in Nakh-Daghestanian linguistics to describe verbal nouns.

headed by non-finite forms: the first non-finite clause is headed by the converb *q'oc'oli* 'having made up', the second is headed by the finalis *dablas* 'unlock' while the third non-finite headed by the negative converb verb *he:^st'uši* 'not coming'. In each case, the non-finite verb forms occur at the end of the clause.

- (29) *q'we<ɾ>u q'oc'o-li q'i^sdi-li dakɫ' dabla-s*
 two<II.SG> [1PL]reconcile.PFV-CVB [1PL]sit.PFV-EVID door(IV)[SG.ABS] unlock-FIN
 adam he:^s-t'u-ši
 person(IV)[SG.ABS] [IV.SG]come.POT.NEG-NEG-CVB
 '...(we) two had made up (by then) and sat (there) with nobody coming to open the door.' (Sisters: 25)

Speakers normally reject non-final verb forms in dependent clauses as ungrammatical. However, in spontaneous speech we find some exceptions to this rule. Thus, in (30) the dependent clause *balaši ac:irši q'amatru* 'my hair hurting badly' is headed by the converb *ac:irši* 'aching', yet it does not occur in final position in this clause.

- (30) *e^smmu zon e^smmu e^smmu bala-ši ac:i-r-ši q'ama-t:u*
 cry.PFV 1SG.ABS cry.PFV cry.PFV badly-ADV[III/IV.PL] ache-IPFV-CVB hair(IV)-PL.ABS
 'I cried and cried, my hair is aching badly.' (Sisters: 19)

Within main clauses, the right peripheral position after the verb is reserved for pragmatically salient information such as afterthoughts, background comments and focus. Thus, in (31) the first-person inclusive pronoun *nen* 'us' is positioned after the verb as it conveys background information known to participants of the conversation.

- (31) *director-ši karim-li i<w>k'u nen*
 director-ADV Karim(I)-SG.ERG <I.SG>rule.PFV 1PL.INCL.ABS
 'Karim (then) ruled us as a headmaster.'

It is for the same reason that the possessor *buwa-t:e-n* 'parents' and locative adjunct *tenik* 'there' are placed at the right periphery in (32). In this instance the addressee already knows that the reported events took place at the speaker's parents' house.

- (32) *cimint hinc baran edi-t'u buwa-t:e-n*
 cement(III)[SG.ABS] now like <III.SG>be.PST-NEG mother(II)-PL.OBL-GEN
 naq'^w edi teni-k
 earth(IV)[SG.ABS] [IV.SG]be.PST there-LAT
 'At (our) parents' there was no cement, as it is now, it was (just) earth there.'
 (Sisters: 16)

In (33), the absolutive argument *un* 'you' is also positioned at the right periphery, but here the reason for VS constituent order is different; *un* is the contrastive focus of the utterance. The context of the conversation makes it clear that the intended meaning of the question is 'Where did you stay as opposed to your companions'.

- (33) danna e<r>χ:u un?
 where <II.SG>remain.PFV 2SG.ABS
 ‘Where did YOU stay?’ (Saidpati: 16)

The typical placement for adjuncts (NPs or PPs) is also at the right periphery of the clause. The comitative form *doš:obče-ł:u* ‘with sisters’ in (34) is such an adjunct; the predicate *anχ:um as* ‘(have) fight’ does not require a comitative.

- (34) anχ:-um a-r-ši ikir doš:ob-če-ł:u
 fight(IV)-PL.ABS [III/IV.PL]do-IPFV-CVB [IV.SG]be.ITER sister(II).PL-PL.OBL-COMIT
 ‘...we used to have fights with our sisters.’ (Sisters: 7)

Likewise, in (35), the postpositional phrase *jemimmes χir* ‘after them’ is not an argument of the verb *ł:unne-łi* ‘ran’ and also occurs at the rightmost periphery of the sentence.

- (35) jo-w oq’ert:u=wu ł:unne-łi jemim-me-s χir
 this-I.SG beggar(I)[SG.ABS]=and run.PFV-EVID that.PL-PL.OBL-DAT after
 ‘Then this beggar ran after them.’ (T8: 62)

As expected for a verb-final language, the noun phrase in Archi is also head-final. In (36) the genitive noun phrase *jamum χ’ini-n* ‘of that cow’ modifies the head noun *biš* ‘calf’.

- (36) jamu-m χ’ini-n biš
 that-III.SG cow(III).SG.OBL-GEN calf(IV)[SG.ABS]
 ‘the calf of that cow’

When modifying a noun, numerals also precede the noun phrase. Thus, in (37) the numeral *łib<t’>u* ‘three’ precedes the noun phrase *dijt:en č’ut* ‘clay pots’ and this is the only possible order.

- (37) łib<t’>u dijt:en č’ut ak:u-s uw-li
 three<IV.SG> clay(IV)-SG.OBL-GEN jug/pot(IV)[SG.ABS] [IV.SG]see-FIN [IV.SG]do.PFV-EVID
 ‘And (he) showed three clay pots.’ (T7: 49)

Phrases with numerals are discussed in more detail in §3.24 and throughout the theoretical analyses; see §5.5.2 for HPSG, §6.3.6 for LFG, §7.4.3 for Minimalism and §8.2.1 for a cross-theoretical discussion.

2.4.3.2 Syntactically privileged arguments

While it is a simple task to demonstrate that Archi exhibits morphological ergativity in its case system (as shown in §2.4.1), employing diagnostics to determine the syntactic status of different case-marked arguments is less straightforward. Superficially, absolutive arguments in Archi appear to be syntactically privileged, since they control agreement as the only argument of an intransitive clause (S) and the patient-like argument of a transitive clause (P). However, we argue that agreement is not a good

diagnostic for establishing grammatical functions in Archi, since absolutive arguments may also control agreement when functioning as the agent-like argument of a Biabsolutive Construction.

Biabsolutive Constructions are mono-clausal structures headed by a periphrastic verb form that has two absolutive arguments (see §4.3 for detailed discussion and subsequent theoretical analyses in §5.4.2 for HPSG, §6.4 for LFG and 7.3.2.2 for Minimalism.). Each absolutive argument is able to control agreement regardless of whether it is the A or P of the clause. For instance, in (38) the absolutive P *buq* ‘grain’ controls agreement in gender (III) and number (SG) on the converbial part of the periphrasis *berk’urši* ‘sort’, while the absolutive A *But:a* (a man’s name) controls agreement in gender (I) and number (SG) on the copula verb *wi* ‘be’.

- (38) But:a buq’ b-e<r>k’u-r-ši w-i
 Butta(I)[SG.ABS] grain(III)[SG.ABS] III.SG-<IPFV>sort-IPFV-CVB I.SG-be.PRS
 ‘Butta is sorting grain.’

Assuming this periphrastic verb has a single argument structure, with a subject (A) and an object (P), such constructions demonstrate that absolutive arguments can control agreement regardless of their grammatical function/semantic macro-role (S, A or P).

Perhaps the most crucial evidence for distinguishing between the grammatical functions of different case marked arguments comes from reflexive binding. In main clauses with a transitive verb, an ergative-marked argument can bind an absolutive argument expressed by a reflexive pronoun as in (39a) but an absolutive argument cannot bind an ergative reflexive, as shown in (39b).

- (39) a. Pat’i-mu inža<r>u čučebo
 Pati(II)-SG.ERG REFL.SG.ABS<II.SG> wash.PFV
 ‘Pati washed herself.’
 b. *žē<r>u Pat’i čučebo
 REFL.SG.ERG<II.SG> Pati(II)[SG.ABS] wash.PFV
 Intended: ‘Pati washed herself.’

The same distinction can be seen in clauses with a ditransitive verb, as shown by the contrast in (40).

- (40) a. kunij<w>u bošor-mu žus:u<t’>u mišin šet:e
 every<I.SG> man(I)-SG.ERG REFL.I.SG.DAT<IV.SG> car(IV)[SG.ABS] [IV.SG]buy.PFV
 ‘Every man bought himself a car.’
 b. *žū<t’>u kunij<w>u bošor-mi-s mišin šet:e
 REFL.I.SG.ERG<IV.SG> every<I.SG> man(I)-SG.OBL-DAT car(IV)[SG.ABS] [IV.SG]buy.PFV
 Intended: ‘Every man bought himself a car.’

This evidence demonstrates that in terms of reflexive binding, ergative arguments are more subject-like than absolutes. Dative subjects pattern with their ergative counterparts in this respect, such that in (41) the dative argument controls the absolutive reflexive.

- (41) a. *laha-s inža-w w-ak:u*
 child(I).SG.OBL-DAT REFL.SG.ABS-I.SG I.SG-see.PFV
 ‘A boy saw himself.’
- b. **žus:a-w lo w-ak:u*
 REFL.I.SG.DAT-I.SG child(I)[SG.ABS] I.SG-see.PFV
 Intended: ‘A boy saw himself.’

Examples of this kind provide limited evidence to support a syntactic distinction between absolutive arguments on one hand, and ergative and dative subjects on the other. It is on this basis that we establish the role of (transitive) subject in Archi.

Elsewhere, a more complex situation emerges. Archi allows the omission of any argument in the clause, with the omission of arguments more frequently encountered in dependent clauses than in main clauses. In the latter clause type, ergative arguments are omitted about three times as often as absolutive ones. Omission of an ergative subject is illustrated in (42), while main clauses with omitted absolutive and dative arguments are illustrated in (43) and (44) respectively.⁸

- (42) *q’ama-t:u klan-ši i kir*
 hair(IV)-PL.ABS [III/IV.PL]pull.IPFV-CVB [III/IV.PL]be.HAB
 ‘(She) would pull hair.’ (Sisters: 13)
- (43) *d-ak’a-qi-ši d-i*
 II.SG-die-POT-CVB II.SG-be.PRS
 ‘(I) was about to die.’
- (44) *do-χo-li imik to-r qart*
 II.SG-find.PFV-EVID there that-II.SG witch(II)[SG.ABS]
 ‘(He) found that witch there.’ (T8: 43)

Normally the referent of an omitted argument can be determined from the context or through agreement; however, when it is not, the sentence remains ambiguous. For instance, in (45) the main clause with the head *hunne* ‘flee’ does not have any overt arguments and the subject of the main clause verb has to be co-referential with one of the two overt arguments of the dependent clause: the ergative *Bulach* or the absolutive *Ali*. When there are no pragmatic or contextual clues, the sentence can be understood in two ways, as illustrated by the differences in co-reference in (45).

⁸ Note that the verb *χos* ‘find’ takes a dative subject and an absolutive object.

- (45) bulač-li ʃali daʎi<w>ti-li ʎunne
 Bulach(1)-SG.ERG Ali(1)[SG.ABS] beat.<1.SG>.PFV-CVB 1.SG.flee.PFV
 ‘Bulach_i beat Ali_j (and) Ø_{i/j} ran away.’

By way of comparison, in English, only co-reference between the two clausal subjects is grammatical. This type of variation suggests that restrictions on co-reference across clauses in Archi are not strictly constrained by an A/S syntactic pivot.

In summary, we argue that while absolutive arguments control agreement, this is not constrained by their argument role since they may do so when functioning as S, A or P. Therefore, control of agreement cannot be taken as a good diagnostic of grammatical function. Since co-referential deletions across clauses provide no clear support for distinguishing ergative and absolutive arguments of transitive verbs, we take reflexive binding to be the defining property of the subjects of verbs with more than one argument.

2.5 The paradigmatic structure of verbs

Verbs in Archi are characterized by a very large inflectional paradigm consisting of forms encoding various TAM distinctions, with related converbs, attributives and masdars. Here we outline the basic properties of the Archi verb (§2.5.1), and introduce Archi’s non-finite verb forms (§2.5.2).

2.5.1 Finite verb forms

The various word forms of a verbal lexeme are produced using several verbal stems. The number of stems depends on the type of the verb. Archi verbs can be divided into two major classes: dynamic and stative.⁹ Dynamic verbs have four aspectual stems (perfective, imperfective, finalis and potential) and an imperative stem which is often irregular. Dynamic verbs may be further divided into simple and complex verbs, based on their formal properties. Stative verbs have only one stem, and therefore their number of inflected forms is dramatically smaller than those of dynamic verbs. Periphrastic verb forms, which are formed using (non-finite) converbs and a finite copula verb, are discussed in §2.5.2.

Table 2.7 shows an example of the aspectual stems and an imperative form of three simple dynamic verbs. The stems are shown in their gender IV singular form, which has no overt agreement exponent. Potential and finalis verb stems are distinguished from other stems by the suffixal exponents *-qi* and *-s* respectively. Imperfective stems are distinguished through suffixation (and often simultaneous infixation) of the exponent *-r*.

⁹ We follow Kibrik’s (1977a) terminology in calling these verbs dynamic and stative. Membership to one or other of these groups is largely semantically predictable: stative verbs mostly denote states such as ‘be big’, ‘be green’ etc., whereas dynamic verbs mostly denote actions. However, the reason for the division is morphological: it is the number of stems associated with the lexeme which defines whether the verb is dynamic or stative.

Table 2.7. Verbal stems, gender IV singular

	PERFECTIVE	IMPERFECTIVE	POTENTIAL	FINALIS	IMPERATIVE
‘divide’	q ^ʰ o	q ^ʰ a-r	q ^ʰ o-qi	q ^ʰ a-s	q ^ʰ a
‘get cold’	qa	qe<ɾ>qi-r	qa-qi	qe-s	qeqi
‘beat’	daydi	da<ɾ>xi-r	daydi-qi	dayi-s	dayi

As with noun stems (§2.4.1 and §2.4.2), all verb stems can be used as independent fully inflected forms, or they can serve as a base for further morphology to form attributives, converbs and various mood forms. The perfective, imperfective and potential stems can be used as finite predicates (see Chumakina 2012 for examples and discussion of their semantics). The imperative heads an imperative clause and the finalis is used very much like the infinitive in familiar languages of Europe, i.e. it can head a clausal complement of a matrix verb such as *kʰan* ‘want’, *kes* ‘be able’, *kʰarʂas* ‘must, have to’ or head a purpose clause. However, the fact that this stem realizes agreement makes labelling it as infinitive potentially confusing, and we follow Kibrik’s (1977a) solution to this problem by calling it the finalis stem. Simple dynamic verbs like those in Table 2.7 represent a closed class of about 170 verbs, the majority of which agree.

Complex verbs form an open and productive class. A complex verb consists of two parts: an inflected stem and an uninflected component. The inflected part is a simple verb such as *as* ‘do’, *kes* ‘become’, *bos* ‘say’, and sometimes (though rarely) other simple verbs. The uninflected lexical part can be of various origins. Some examples of these different bases and of the complex verbs produced from them are provided in (46).

(46) Archi complex verbs

- a. stative verb base: *doʰz* ‘be big’
complex verb: *doʰz as* ‘grow’
- b. base noun in the absolutive: *cac* ‘prickle’
complex verb: *cac kes* ‘frown’
- c. base noun in the locative: *baʰri* ‘pool’
complex verb: *baʰraj axas* ‘bathe’
- d. masdar base: *mišajatkul* (from the Russian verb *mešatʰ* ‘disturb’)
complex verb: *mišajatkul as* ‘disturb’
- e. reduplicated base form not otherwise used: *χ:iriχ-χ:iris*
complex verb: *χ:iriχ-χ:iris as* ‘pester’
- f. loanword base otherwise not used: *dagawur as* ‘agreement’
complex verb: *dagawut as* ‘sign an agreement’

Around one third of all Archi verbs (simple and complex together) realize agreement. (For actual numbers and the distribution of agreeing and non-agreeing verbs see Chumakina & Corbett 2015.) However, if the verb does realize agreement, all of its stems and the inflected forms based on them also take agreement inflection. Table 2.8

shows how gender and number features are realized in different stems of the verb *aχas* ‘lie down, sleep’.¹⁰

Table 2.8. Gender marking in the verb *aχas* ‘lie down, sleep’

	PERFECTIVE		IMPERFECTIVE		FINALIS		IMPERATIVE	
GENDER	SG	PL	SG	PL	SG	PL	SG	PL
I	a<w>χu	aχu	w-arχa-r	b-arχa-r	a<w>χas	aχas	w-aχa	b-aχa
II	a<r>χu		d-arχa-r		a<r>χas		d-aχa	
III	aχu	aχu	b-arχa-r	arχa-r	aχas	aχas	b-aχa	aχa
IV	aχu		arχa-r		aχas		aχa	

2.5.2 Non-finite verb forms

An elaborate system of converbs, participles and masdars is characteristic for all Nakh-Daghestanian languages, and Archi is no exception here. All of these verb forms belong to the class of the non-finites by the virtue of their inability to head an independent clause. Converbs serve as heads of dependent clauses (temporal, causal, conditional etc.), and as a component part of periphrastic verb forms. Participles head relative clauses, while masdars head complement clauses of matrix verbs such as *sini* ‘know’, *bos* ‘say’ and others. However, as observed by Nikolaeva (2012), these verb forms contrast with more familiar European non-finite forms in that they can realize agreement. In fact, all Archi non-finite forms (finalis forms, converbs, attributives and masdars) agree in gender and number with their absolutive argument (provided that the particular verb agrees). Here we give a brief outline of the morphology of the non-finite forms to summarize how the predicates of dependent clauses are formed. We start with the converbs.

Converbs in Archi represent a very large system of non-finite verb forms which can be characterized as belonging to two types based on whether they express general aspectual meanings such as sequence, simultaneity or length of action, or relational meanings such as condition, reason, concession. We will concentrate on the former type. There are four converbial suffixes: *-li*, *-ši*, *-na* and *-mat*. They combine with different aspectual stems to form aspectual converbs with two different functions: they can head a dependent clause (selected as an argument or adjunct of another verb) as in (47), or form a constituent part of an independent (periphrastic) predicate, as in (48).

- (47) ca<r>χu-li gumgum aq⁵u
 <II.SG>fall.down-CVB jug(III)[SG.ABS] <III.SG>break.PFV
 ‘Having slipped I (fell and) broke the jug...’

- (48) doba-mu mu:ši k’ob a-r-ši edi
 granny(II)-SG.ERG well clothes(IV)[PL.ABS] [III/IV.PL]do-IPFV-CVB [III/IV.PL]be.PST
 ‘(My) granny made good dresses.’ (She was a good seamstress.)

¹⁰ Note that the potential stem is not shown because in terms of agreement morphology it behaves just like the perfective.

Periphrastic verbs forms are complex verb forms composed of a converbial form of a lexical verb and the copula *i* ‘be’ in the present or past tense. Though composed of two different words, periphrastic forms occupy a single cell in the paradigm of a lexical verb. The paradigm in (49) shows the possible forms of the copula ‘be’ when inflected for agreement with an absolutive controller.

(49) Forms of the verb *i* ‘be’ used to produce periphrastic tenses

	PRESENT		PAST	
GENDER	SG	PL	SG	PL
I	w-i	b-i	i<w>di	edi
II	d-i		e<r>di	
III	b-i	i	edi	edi
IV	i		edi	

Periphrasis is discussed further in §4.3 in relation to biabsolutive constructions. For discussion of the Archi periphrastic forms and their meanings see Chumakina (2012); for recent discussion of diagnostics for identifying periphrastic verbs, see Brown, Chumakina, Corbett, Popova & Spencer (2012). Whether used in a dependent clause or as part of a periphrastic verb, each of the converbial forms is distinguished by one of four suffixes, combined with different aspectual stems, to convey different meanings. The suffix *-li* combines with the perfective stem to form the consecutive converb, an example of which is shown in (47). It denotes an action that has finished before the action of the main clause starts. It is also used for perfective periphrastic tenses. As (47) shows, the converb agrees with its own absolutive argument (i.e. the subject of dependent clause, ‘I’, the female story teller) and thus may have a different agreement controller than the predicate in the main clause. The suffix *-ši* combines with an imperfective stem to form the simultaneous converb. It denotes an action which is going on at the same time as the action of the main clause. It is also used for progressive periphrastic tenses; an example of this latter function was shown in (48). Both perfective and imperfective stem can combine with the suffix *-mat* forming the continuous converb; in combination with the imperfective stem it denotes an action which is going on longer than anticipated, as illustrated in (50); in combination with the perfective stem it denotes the action which resulted in certain state of affairs and this state is present longer than anticipated, as in (51). This converb is mostly used for periphrastic tenses.

(50) to-r ḅʰaža-r-mat d-i
that-II.SG[ABS] cut-IPFV-CVB II.SG-be.PRS
‘She is (still) hay cutting (although she was supposed to stop some time ago).’

(51) godo-t nokʰ okʰu-mat i
that-IV.SG house(IV)[SG.ABS] [IV.SG]sell.PFV-CVB [IV.SG]be.PRS
‘The house is (still) sold’. (In a situation when the house is still empty, and the new owners have neither moved in nor started doing anything to the house.)

The potential stem co-occurs with the suffix *-ši* to form a converb which denotes an action happening immediately after the action of the main clause. It is also used for the immediate future periphrastic tense, as illustrated in (52).

- (52) nessen q'ul aq^ʕu-qi-ši i w-ak:i
 now board(IV)[SG.ABS] [IV.SG]split-POT-CVB [IV.SG]be.PRS I.SG-leave.IMP
 ‘The board is about to split, step away.’

A further class of non-finite forms modify nouns and pronouns or combine with the verb *i* ‘be’ to serve as independent predicates. They are produced from all aspectual stems by attaching the attributive suffix *-t:u*. The attributive is then inflected with gender and number agreement, as illustrated in Table 2.9. These ‘participle’ verb forms are part of a larger class of attributives discussed in §3.2.2 and 3.3.2, and in Bond and Chumakina (to appear).

Table 2.9. Attributive stems of *aχas* ‘lie down, sleep’

	PERFECTIVE	IMPERFECTIVE	POTENTIAL	FINALIS
I.SG	a<w>χut:u	w-arχart:u	a<w>χuqit:u	a<w>χast:u
II.SG	a<r>χut:u-r	d-arχart:u-r	a<r>χuqit:u-r	a<r>χast:u-r
III.SG	aχut:u-b	b-arχart:u-b	aχuqit:u-b	aχast:u-b
IV.SG	aχut:u-t	arχart:u-t	aχuqit:u-t	aχast:u-t
I/II.PL	aχut:-ib	b-arχart:-ib	aχuqit:-ib	aχast:-ib
III/IV.PL	aχut:-ib	arχart:-ib	aχuqit:-ib	aχast:-ib
	one who is asleep	one who is always or often asleep	one who will be asleep	one who is supposed to be asleep

Finally, masdars also realize agreement, provided that the base verb from which they are formed has agreement potential (see §4.4.1). Masdars function as the head of complement clauses of matrix verbs such as *bos* ‘say’, *sini* ‘know’ and others. The masdar agrees with its own S/P argument. Thus, in (53), the masdar *carχmul* ‘falling’ agrees with the genitive subject *Pat'i* (a girl’s name) in gender (II) and number (singular).

- (53) Pat'i-n ca<r>χ-mul sini
 Pati(II)[SG]-GEN <II.SG>fall-MSD(IV)[SG.ABS] know
 ‘I know that Pati fell.’

In (54) the masdar *we^ʕršmul* ‘running’ agrees in gender (II) and number (singular) with the genitive subject *Rasul* (a boy’s name).

- (54) Rasul-li-n w-e^ʕrš-mul sini
 Rasul(I)-SG.OBL-GEN I.SG-run-MSD(IV)[SG.ABS] know
 ‘I know that Rasul runs.’

The subject of the clause headed by a masdar can also be in the absolutive; for all of the examples cited here, genitive and the absolutive subjects are interchangeable, the exact conditions of the case choice requires further research. In (55) the masdar *akłmul* ‘coming’ agrees with its absolutive subject *šijt’ammul* ‘devils’.

- (55) ʔali-ʔaʂat-li-ra-k šijt’am-mul akł-mul bo-qi
 Ali-Ashat-SG.OBL-CONT-LAT devil(III)-PL.ABS [III/IV.PL]come-MSD say-POT
 ‘I will tell (a story about) how devils came to Ali-Ashat.’

In (56), the masdar *wakłmulu* ‘coming’ agrees with the absolutive subject *jamu* ‘he’.

- (56) ja-r-mi-s kł’an-t’u-ši et:i-li jamu w-akł-mul=u
 this-II.SG-SG.OBL-DAT want-NEG-CVB [IV.SG]become.PFV-EVID that[I.SG.ABS] I.SG-come-MSD=and
 ‘She did not like that he came.’

Note that *kł’an* ‘want’ is sometimes best translated as ‘like’, with the intended meaning apparent from the context.

2.6 Conclusion

Even the briefest overview of Archi phonology, morphology and syntax reveals that the language exhibits a rich phonological inventory, a diverse range of morphological exponents (both synthetic and periphrastic) and various paradigm shapes. In particular, agreement can target almost any part of speech and there are a large number of agreeing non-finite verb forms that head complements and other dependent clauses. Archi syntax exhibits some degree of flexibility in the ordering of constituents, with a default head-final tendency. While morphological ergativity is evident throughout transitive clauses, there is also limited evidence that both absolutive and ergative arguments can function as a syntactically privileged argument in certain control structures.