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**ON THE HISTORICAL PHONOLOGY OF OSSETIC:
THE ORIGIN OF THE OBLIQUE CASE SUFFIX**

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I. The problem: Proto-Ossetic oblique *-i

Ossetic is spoken by approximately half a million inhabitants of the autonomous Republic of North Ossetia-Alania in the Russian Federation and the former autonomous region of South Ossetia in Georgia, as well as adjoining regions of the central Caucasus and emigrant communities in cities such as Moscow, St. Petersburg, and Tbilisi¹. The language belongs to the Iranian branch of the Indo-European family and is the sole surviving descendant of the Northeast Iranian dialects of the ancient Scythians and Sarmatians and medieval Alans, who dominated the Eurasian steppe between the Danube delta and Central Asia from the first millennium B.C. until the early Middle Ages. Despite having undergone numerous idiosyncratic developments – and influence from neighboring Caucasian and Turkic languages – Ossetic preserves many startling archaisms in its phonology and morphology, due in part to its isolation from the rest of the Iranian-speaking world for some thousand years.

Among the modern Iranian languages, Ossetic is distinguished by its complex system of nominal case inflection, exemplified by the following paradigms for *bæx* “horse” in the two major dialects, Digor (D) and Iron (I)²:

	Digor	pl.	Iron	pl.
nominative	<i>bæx</i>	<i>bæx-tæ</i>	<i>bæx</i>	<i>bæx -tæ</i>
genitive	<i>bæx-i</i>	<i>bæx-t-i</i>	<i>bæx-y</i>	<i>bæx-t-y</i>
dative	<i>bæx-æn</i>	<i>bæx-t-æn</i>	<i>bæx-æn</i>	<i>bæx-t-æn</i>
allative	<i>bæx-mæ</i>	<i>bæx-tæ-mæ</i>	<i>bæx-mæ</i>	<i>bæx-tæ-m</i>
ablative	<i>bæx-æj</i>	<i>bæx-t-æj</i>	<i>bæx-æj</i>	<i>bæx-t-æj</i>
inessive	<i>bæx-i</i>	<i>bæx-t-i</i>	<i>bæx-y</i>	<i>bæx-t-y</i>
adessive	<i>bæx-bæl</i>	<i>bæx-tæ-bæl</i>	<i>bæx-yl</i>	<i>bæx-t-yl</i>
comitative	<i>(bæxi xæccæ)</i>	<i>(bæxti xæccæ)</i>	<i>bæx-imæ</i>	<i>bæx-t-imæ</i>
equative	<i>bæx-au</i>	<i>bæx-t-æu</i>	<i>bæx-au</i>	<i>bæx-t-au</i>

The “genitive” is also used to mark definite (direct) objects and is found in a variety of other argument and locative roles, as a result of which it is often referred to as the oblique. The comitative, expressing accompaniment (“with a horse”), is found only in Iron; in its place, Digor uses gen. *-i* followed by the postposition *xæccæ*³.

Although a century has passed since the appearance of Miller’s pioneering historical grammar of Ossetic in 1903, disagreement persists as to the origin of several of these case markers. To be sure, all scholars derive adess. D *-bæl* (reduced to *-yl* in Iron) from postposed PIr. **upari* “on, above, at” (Av. *upairi*, OP *upariy*, Skt. *upāri*; MILLER 1903: 46–47, BAILEY 1945: 6, THORDARSON 1989a: 471); and WEBER (1980: 133) is probably correct to compare dat. D, I *-æn* with similar medieval and modern Northeast Iranian endings, namely Khotanese *a*-stem instr. sg. *-ina*, *-āna* or obl. sg. Yidgha *-en*, Munjī *-an*, abl./gen. sg. Waxī *-ən* < **-anā*⁴. Yet there is no consensus at present on the prehistory of abl. D, I *-æj* or the central element in Ossetic case inflection, gen./iness. D *-i*, I *-y*.

MILLER (1903: 43–44) derives D *-i*, I *-y* < POss. **-i* from PIr. **-iya-* < PIE **-iyo-*, well attested in Indo-Iranian, Anatolian, Greek, and other IE branches as a denominal suffix forming relational adjectives⁵. On the other hand, he connects abl. *-æj* with PIr. *o*-stem gen. **-ahya* (44; so also WEBER 1980: 130), which presupposes merger of abl. with gen. in thematic nouns on the analogy of other stem classes, and subsequent replacement of the reflex of **-ahya* by that of **-iya-* in genitival function. Although Miller’s etymology of **-i* is phonologically plausible, it is questionable whether an adjectival formation could have become *the* default oblique marker and the basis for a whole new series of secondary cases⁶; one would prefer to derive it instead from one or more case endings of the PIr. ancestor of Ossetic.

More recently, BIELMEIER (1982: 59, 66–67) takes the Ossetic gen./iness. from the PIr. gen. sg. **-ah* of consonant-stems. This hypothesis, however, is directly contradicted by the zero-ending of most nouns in both dialects, which can hardly reflect anything other than PIr. *a*-stem nom. sg. **-ah*. Similarly, THORDARSON (1989a: 459, 470) sees in this ending a merger of gen. sg. **-ah* and loc. sg. **-yā* of PIr. root nouns, whereas abl. *-æj* goes back to *ā*-stem gen./abl. **-āyāh* (or a conflation of **-āyāh* and instr. **-ayā*; 1989a: 459, 471).

That the archaic PIr. root-noun or consonant-stem inflection would have ousted that of the rapidly expanding *a*- and *ā*-stems in the prehistory of Ossetic is *a priori* improbable. A more serious defect of these explanations, however, is their arbitrary appeal to, and selection from, the rich variety of PIr. declensions and case endings⁷. Although the extension of an original, say, genitive or instrumental ending to a general “oblique” does find parallels in the historical

development of other IE languages⁸. Bielmeier and Thordarson fail to explain why these particular cases of particular stem classes were generalized to all nouns. Moreover, they do not specify what happened to the rest of the Old Iranian case system. Did the other case endings simply disappear without a trace? Through what stages did pre-Ossetic pass between the reconstructed PIr. system of eight cases and the very different modern Ossetic agglutinative system of eight cases (nine in Iron)?

As TESTEN (1996: 370-72) rightly emphasizes, one must take into account the diachronic evolution of the morphology of the language as a whole. In his brief discussion of the prehistory of Ossetic nominal inflection, Testen argues that the reconstructed PIE, PInIr., and PIr. inflectional system of eight cases was drastically reduced in pre-POss. to two cases, unmarked nominative or “direct” *-Ø and oblique *-i, a situation preserved in contemporary Yagh-nōbī (see section 2)⁹. The subsequent buildup of “secondary” cases through grammaticalization of postpositions left the bare obl. *-i confined to the functions of definite direct object, genitive, and inessive (locative).

This hypothesis accounts for the primary role of the genitive/inessive within the Ossetic case system and the relatively wide variety of theta- and locational roles which it can express. In support of this view, Testen refers to the clitic forms of personal pronouns, in which the former pre-POss. general oblique clitic survives in the unmarked, unaffixed gen./abl./iness. 1sg. *mæ*, 2sg. *dæ*, 1 pl. *næ*, 2pl. *uæ*, 3 pl. *sæ*¹⁰. As for the abl., Testen prefers to derive *-æj* from postposed PIr. **hača* (1996: 370 n. 18), comparing the OP abl. construction *hačā-ma* “from me” (with secondary enclitic *-ma* vs. tonic Av. *mat*, Ved. *mát*; 1996: 362 n. 8)¹¹.

In the following, I approach the question of the origin of pre-POss. obl. *-i by comparing the prehistory of oblique case endings in the closest attested East Iranian relatives of Ossetic. Specifically, Sims-Williams’s (1982) analysis of the origin of obl. *-ī* in Sogdian – the lingua franca of trade along the Silk Road in medieval Central Asia before the Islamic conquest, and a vehicle of Buddhist, Manichaean, and Nestorian Christian literature – suggests that a similar sequence of phonological developments may have produced obl. *-i in Ossetic as well (see section 2). The resemblance between the stress patterns reconstructed for Proto-Ossetic and Sogdian suggests that the two languages shared in the same prehistoric stress shift or reassignment (see section 3). The relative chronology of the pre-POss. stress shift and other sound changes, based mostly on internal reconstruction, leads to the conclusion that the oblique ending is a common innovation of Ossetic and Sogdian (see section 4). The ensuing implications for medieval and modern Northeast Iranian dialectology are briefly discussed in section 5.

2. Sogdian *-ī* and Yaghnōbī *-i*

In his pioneering study of East Iranian nominal inflection, TEDESCO (1926: 102; cf. 1923: 314) proposed that the synchronic facts of Sogdian reveal the earlier operation of a “Rhythmic Law” (*Rhythmusgesetz*), which divided all nouns, adjectives, and verbs into two types of stems, “light” and “heavy”: the former preserve distinct reflexes of numerous OIr. inflectional endings which have been merged or lost in the latter. Citing as a parallel the distribution of stress in Iron Ossetic (on which see section 3 below), GERSHEVITCH (1948: 62–63) proposed that the Rhythmic Law was connected to the placement of stress in pre-Sogdian: “words kept or lost their vocalic endings according as the endings were stressed or unstressed”.

SIMS-WILLIAMS (1984) has refined the statement of the Rhythmic Law as follows: Syllables containing a long vowel or diphthong, including /Vr/ and /Vm/, are “heavy”, while all other syllables are “light”¹². At some point in the prehistory of Sogdian, surface stress came to lie on the first heavy syllable in the (phonological) word; if there were no heavy syllables, stress fell on the final syllable. Stems containing at least one heavy syllable are referred to as “heavy”; those which consist solely of light syllables are “light”.

This shift, a purely phonological phenomenon, was followed by a number of stress-conditioned developments which profoundly affected the inflectional morphology and morphosyntax of the language. Consider the parallel declensions of two masculine *a*-stems, light *ram-* “people” and heavy *mēθ* “city”, and two feminine *ā*-stems, light *wan-* “tree” and heavy *žwān* “life”¹³. Note that the Sogdian plural is regularly formed with the originally collective suffix **-tā* and so takes singular *ā*-stem endings¹⁴.

light masc.	<i>ram-</i> “people”		pl.	
nom.	<i>ram-í</i>	< *ram-áh	<i>ram-tá</i>	< OIr. *ram(V)-tá
acc.	<i>ram-ú</i>	< *ram-ám	<i>ram-tá</i>	< OIr. *ram(V)-tám
gen.dat.	<i>ram-é</i>	< *ram-ahyá	<i>ram-tyá</i>	< OIr. *ram(V)-tayáh
loc.	<i>ram-yá</i>	< *ram-ayá	<i>ram-tyá</i>	< OIr. *ram(V)-tayá
abl.-inst.	<i>ram-á</i>	< *ram-ád	<i>ram-tyá</i>	< OIr. *ram(V)-tayá(h)
voc.	<i>ram-á</i>	< *ram-á	<i>ram-té*</i>	< OIr. *ram(V)-tái

heavy masc.	<i>mēθ</i> “day”		pl.	
nom.	<i>mēθ</i>	< *máiθ-ah	<i>mēθ-t</i>	< OIr. *máiθ(V)-tā
acc.	<i>mēθ</i>	< *máiθ-am	<i>mēθ-t</i>	< OIr. *máiθ(V)-tām
gen.dat.	<i>mēθ-ī</i>	< *máiθ-ahya	<i>mēθ-tī</i>	< OIr. *máiθ(V)-tayáh
loc.	<i>mēθ-ī</i>	< *máiθ-ayā	<i>mēθ-tī</i>	< OIr. *máiθ(V)-tayā

abl.-inst.	<i>mēθ</i>	< *máiθ-ād	<i>mēθ-tī</i>	< OIr. *máiθ(V)-tayā(h)
voc.	<i>mēθ</i>	< *máiθ-a	<i>mēθ-t</i>	< OIr. *máiθ(V)-tai
light fem.	<i>wan-</i> “tree”		pl.	
nom.	<i>wan-á</i>	< *wan-ǎ	<i>wan-tá</i>	< OIr. *wan(V)-tǎ
acc.	<i>wan-á</i>	< *wan-ǎm	<i>wan-tá</i>	< OIr. *wan(V)-tǎm
gen.dat.	<i>wan-yá</i>	< *wan-ayǎh	<i>wan-tyá</i>	< OIr. *wan(V)-tayǎh
loc.	<i>wan-yá</i>	< *wan-ayǎ	<i>wan-tyá</i>	< OIr. *wan(V)-tayǎ
abl.-instr.	<i>wan-yá</i>	< *wan-ayǎ(h)	<i>wan-tyá</i>	< OIr. *wan(V)-tayǎ(h)
voc.	<i>wan-é*</i>	< *wan-ái	<i>wan-té*</i>	< OIr. *wan(V)-tái
heavy fem.	<i>žwān</i> “life”		pl.	
nom.	<i>žwān</i>	< *jīwǎn-ā	<i>žwān-t</i>	< OIr. *jīwǎn(V)-tā
acc.	<i>žwān</i>	< *jīwǎn-ām	<i>žwān-t</i>	< OIr. *jīwǎn(V)-tām
gen.dat.	<i>žwān-tī</i>	< *jīwǎn-ayǎh	<i>žwān-tī</i>	< OIr. *jīwǎn(V)-tayǎh
loc.	<i>žwān-tī</i>	< *jīwǎn-ayā	<i>žwān-tī</i>	< OIr. *jīwǎn(V)-tayā
abl.-inst.	<i>žwqn-tī</i>	< *iīwqn-ayā(h)	<i>žwān-tī</i>	< OIr. *iīwqn(V)-tayā(h)
voc.	<i>žwān</i>	< *jīwǎn-ai	<i>žwān-t</i>	< OIr. *jīwǎn(V)-tai

It is clear from these paradigms that unstressed word-final short vowels were apocopated, and many short vowels in initial and medial syllables were lost as well¹⁵. Among the other stress-conditioned changes that postdated the Rhythmic Law, e.g., *-āk* < **ákā* with light stems vs. *-ā* < **-ākā* with heavy stems (e.g., *psāk* “wreath” < **pusākā* vs. *xānā* “house” < **xānākā*, *βαγγῆκ* “divinity” < **bagyākā* vs. *xwātyā* “weakness” < **xwātyākā*; SIMS-WILLIAMS 1981b: 12–14), by far the most significant and widespread is that of unstressed **ya*, **yā* > *ī*. Cf. light (*ə*)*kt-yǎ* “deed, action” < **kṛti-yǎ* (← PIr. **kṛti-* to the root **kar-* “do”) vs. heavy (*ə*)*kān-tī* “sin” < **kṛtāna-yā*, or proclitic demonstrative pronoun (used as definite article) B *’wy* [awī], M *wyy* [wī], C *y-* [ī] < **awya* vs. orthotonic (*a*)*wyá* < **awyá* (GERSHEVITCH 1954: §§ 202, 605 [medial], §§ 1439–40 [final], SIMS-WILLIAMS 1981b: 14–17, 1982: 72, 1984: 204–5)¹⁶.

This last sound change provides the key to the origin of Sogdian oblique *-i*. The contrasting reflexes of the PIr. nominal case endings may be derived from the following relative chronology of pre-Sogdian sound changes:

- (1) *Auslautgesetze*: **-ah* > **-i*, **-am* > **-u*, **-ā(h)* > **-a*;
- (2) syncope of (certain) unstressed vowels;
- (3) unstressed **-yǎ* > **-ī*, **-wǎ* > **-ū*;
- (4) loss of “suffixal” **k* after unstressed **ǎ* in sequences of **-ǎk* V, with contraction of vowels across the resulting hiatus;

- (5) apocope of unstressed word-final short vowels, syncope of unstressed word-initial and -medial short vowels, shortening of posttonic long vowels (and loss word-medially; cf. GERSHEVITCH 1954: §889, SIMS-WILLIAMS 1984: 203–4), and variable introduction of prothetic and epenthetic vowels¹⁷.

Thus *-ī* after heavy stems continues PIr. endings of the form **-ayā(h)* via the sequence of developments **'-ayā > *'-yā (2) > -ī (3)*. This ending, then, was originally proper to the loc. of the masc. sg. (< PIr. *a*-stem **-ayā*) and the gen./dat., loc, and abl./instr. of the fem. sg. and all regular *t*-plurals (< PIr. *a*-stem **-ayāh*, **-ayā*)¹⁸.

Phonological developments in unstressed final syllables thereby resulted in a complex and synchronically opaque distribution of *-Ø* vs. *-ī* in heavy stems, illustrated above by the paradigms of masculine *mēθ* and feminine *žwān*. This distribution has been almost fully preserved in the archaic Christian ms. C2, as demonstrated by SIMS-WILLIAMS (1982: 72–73). Not surprisingly, most (later) Sogdian texts have simplified this state of affairs to a two-case agglutinative system opposing nominative *-Ø* to generalized oblique *-ī*:

	sg.-	pl.
nom.	<i>mēθ</i>	<i>mēθ-t</i>
obl.	<i>mēθ-ī</i>	<i>mēθ-tī</i>

Although other phonological developments did on occasion cause declensional shifts from one class to the other (e.g., S *knδth* [kañθ-t] > *kθt* [kaθ-t] → C *qθt'* [kaθ-tá] “cities”, where the loss of the postvocalic nasal resulted in a light stem; SIMS-WILLIAMS 1989b: 182), later borrowings and new creations were for the most part inflected according to the heavy paradigm, including nouns and adjectives composed entirely of light syllables, e.g., *kaβnak* “little”, *moγpat* “chief magus” (SIMS-WILLIAMS 1984: 208, 213).

In Late Sogdian documents, one can observe a definite trend toward generalization of the “light” nom. endings (masc. *-i*, fem, *-a*) and “heavy” obl. [*-ī*] (*-y*, *-y*), as in the following forms of “god” from the Christian ms. C5: *βαγi* “god”, obl. *βαγi-ī*; pl. *βαγ-ta*, obl. *βαγ-ta-ī* (SIMS-WILLIAMS 1982: 69–70, 1989b: 184–85; for further exx. cf. SIMS-WILLIAMS 1981b: 14). Such a two-case system is attested in contemporary Yaghnōbī, the lone surviving (near-) descendant of Sogdian, spoken today by about 2,500 people in the Yaghnōb valley in Tajikstan: cf. *kat* “house”, obl. *kāt-i*; pl. *kat-t*, obl. *kāt-t-i* (XROMOV 1972: 18–19, BIELMEIER 1989b: 483)¹⁹.

Sims-Williams’s account of Sogdian historical phonology thus accounts neatly for the attested paradigms of light and heavy nominal stems, in particular the heavy-stem ending *-ī* which was increasingly generalized as an oblique marker in later Sogdian. Given that Sogdian and Ossetic share a number of lexical and morphological isoglosses (cf. BAILEY 1945, 1946), one might ask whether a stress pattern in prehistoric Ossetic similar to the Rhythmic Law could likewise have played a role in the evolution of pre-POss. obl. **-i* > POss. gen./iness. **-i* > D *-i*, I *-y*. Before addressing this question, let us first reconstruct the stress system of Proto-Ossetic, based on the evidence of the modern dialects.

3. Reconstructing Proto-Ossetic Stress

In general, the placement of stress in Ossetic is conditioned by the distinction between “weak” and “strong” vowels, whose distribution is given below:

	weak	strong
Digor	æ i u	a e o (ī) ²⁰
Iron	æ y	a i u e o

In Iron, surface stress is restricted to the first two syllables of the prosodic unit or “accentual complex”, i.e., phonological word²¹. If the first syllable contains a strong vowel, it receives the stress; if the vowel of the first syllable is weak, stress falls on the second syllable²². In the following example, the initial syllabic of *kúrync* “they ask” is stressed since it contains the strong vowel *u*, whereas *nyr-tá-syn-æj* and *sæ-čýžž-y* have weak vowels in their initial syllables (*v* and *æ*, respectively) and so exhibit second-syllable stress.

<i>nyr</i>	<i>tá</i>	<i>syn</i>	<i>æj</i>		<i>kúrync</i>		<i>sæ</i>	<i>čýžž-y</i>
now	again	3pl.	3sg.		they ask		their	daughter
		dat.	gen.					gen.

“Now again they ask them for her, their daughter”²³.

By comparison, the accentual system of Digor appears to be significantly more complex, with the position of stress conditioned by the openness or closedness of syllables as well as the distinction between strong and weak vowels. The basic pattern, however, is fairly clear. Surface stress is restricted to the first three syllables of the phonological word (BAILEY 1950: 59ff., ISAEV 1966: 26); within that limitation, the last strong vowel receives the stress, as in *raxastón* “I brought out”, *fælváræ* “the year before last”, *xebærágæ* “alone, in

private” (but note *raxastá* ~ *raxásta* “s/he brought out”; examples from ISAEV 1966: 27). If all the vowels are weak, stress generally falls as far to the right as allowed, e.g., *næ tikís* “our car”, *æer-min-céydaæ* “play for me”, although final -æ may be stressed only in disyllabic words, e.g., *fidcé* “father”.

Despite their differences, the stress patterns of the two dialects must descend from a common ancestor. The restriction of stress to the first two syllables of the prosodic unit in Iron, and to the first three syllables in Digor, can easily be an innovation, similar to, e.g., the limitation of stress to the final three syllables in Latin or ancient Greek. Given the numerous intricacies and variation within Digor, I tentatively assume that POss. stressed the first strong vowel of the word, as in Iron, but that in the absence of strong vowels, stress fell on the final syllable²⁴. These rules have been preserved in Iron, which has however imposed a constraint limiting stress to the first two syllables. Digor has likewise restricted the domain of stress realization, although to a lesser extent than Iron, and come to stress the rightmost rather than leftmost strong vowel; the fluctuation of forms such as *raxásta* (alongside *raxastá*) could be interpreted as an archaism, rather than retraction from an open final syllable.

According to the reconstruction just proposed, then, the rules for the placement of stress in POss. are exactly those which operated in the prehistory of Sogdian, except for the specification of marked syllable heads: strong vowels in POss. vs. heavy syllables in pre-Sogdian. In the following section, we present evidence that this pre-POss. stress shift and the Sogdian Rhythmic Law are manifestations of a single historical process, i.e., a common innovation shared by (most dialects of) pre-Sogdian and pre-Proto-Ossetic.

4. Stress and the Prehistory of Ossetic Vocalism

As is well known, “[i]n the development of the OIran. vowels Ossetic shows a striking conservatism” (THORDARSON 1989a: 459). The principal vowel correspondences from PIr. through POss. to Digor and Iron are summarized in the following table²⁵:

PIr.	pre-POss.	POss.	Digor	Iron
*a	*aCC]σ *aC]σ	*a *æ	a æ	a æ
*ā	*aNC]σ, *āN	*a *o	a o	a o
*i, *ī		*i	i	y
*u, *ū		*u	u	y
*ai		*e	e	i
*au		*o	o	u

Among the six vowel phonemes reconstructible for POss., the weak vowels *æ, *i, and *u descend from short PIr. *a, *i, *u, respectively, whereas strong POss. *a, *e, *o continue PIr. *ā and the diphthongs *ai, *au. The only exceptions to this generalization are PIr. *ī and *ū – for which examples are extremely rare – and the lengthening of *a > *ā (or, depending on the relative chronology, backing of *æ > *a; see section 4.2 (9)) in doubly closed syllables²⁶. The relationship between the PIr. and POss. vowel systems may hence be depicted as follows:

PIr.			POss.		
i		u	i		u
ai	a	au	e	æ	o
	ā			a	

We thus find that the sources of the strong vowels in (Proto-)Ossetic agree to a large degree with those of heavy syllables in Sogdian, namely long vowels and diphthongs. This is unlikely to be mere coincidence: rather, it appears that the assignment of stress according to heavy/strong vs. light/weak syllables, at least in its essentials, was a common innovation shared by these two closely related East Iranian languages. Minor discrepancies, such as the weak treatment of PIr. *ī, *ū > POss. *i, *u or the heavy value of pre-Sogdian sequences of tautosyllabic vowel + sonorant, are only to be expected, given the vast geographic area over which the stress shift in question took place, and may easily be accommodated under the model of a dialect continuum (cf. section 5).

To test this hypothesis, we next reconstruct a relative chronology of the Ossetic stress shift and related sound changes, much as Sims-Williams has done for the Rhythmic Law in Sogdian (see section 2). For Ossetic, the relevant changes include umlaut, syncope, and other conditioned vocalic and consonantal developments, as well as the reflexes of word-final sequences (*Auslautgesetz*), which as in many other IE languages often deviate from their outcome in other positions.

4.1. Excursus: Medieval Sources for Proto-Ossetic Phonology

Before turning to comparative and internal reconstruction, let us examine the meager sources for medieval Ossetic and assess their value for Ossetic historical phonology. The one epigraphic monument discovered to date, the Greek-letter inscription from the river Zelenčuk in the western Caucasus, has been dated to the 10th–12th c. A.D.; cf. ZGUSTA 1987, whose excellent and

thorough discussion of previous treatments concludes with a summary and translation (59–61). I reproduce his edition of the text here, with a transliteration into Roman characters:

ΣΑΧΗΡΗ ΦΟΥΡΤ ΧΟΒΣ	<i>Saxiri furt Xovs,</i>
ΗΣΤΟΡΗ ΦΟΥΡΤ ΠΑΚΑΘΑΡ	<i>Istori furt Bæqætær,</i>
ΠΑΚΑΘΑ(Ρ)Η ΦΟΥΡΤ ΑΝΠΑΛΑΝ	<i>Bæqætari furt Æmbalan,</i>
Α(Ν)ΠΑΛΑΝΗ ΦΟΥΡΤ ΛΑΚ	<i>Æmbalani furl Lag;</i>
ΑΝΗ ΤΖΗΡΘΕ	<i>ani čirt²⁷.</i>

“X. son of S., B. son of I., Æ. son of B., L. son of Æ.; (this is) their monument.”

Although mostly composed of proper names, this inscription contains several features of interest. The gen. sg. ending is already *-i* (-H), found with the names of the fathers of the four men buried at the site, followed by ΦΟΥΡΤ “son” and the names of the deceased. That POss. *i and *u have not yet fallen together is shown by the spelling of ΦΟΥΡΤ (*furt*): cf. D *-i, furt* vs. I *-y, fyrt*, where POss. *i and *u have merged as *y*. Zgusta seems to imply that the language of the inscription is thus closer to Digor (1987: 61), but as Digor is here (and in many other respects) merely more archaic than Iron, preservation of the distinction between *i and *u is hardly surprising; cf. TESTEN 1989: 196. Most important – and unexpected – is the preservation of *-E* < **-ah* in ΤΖΗΡΘΕ < PIr. *čīθrah (Av. *čīθra-* “visible, evident; appearance, vision, proclamation”, Khot. *tcira-* “image”, Pers. *čīhr* “face, figure, image”; BARTHOLOMAE 1904: 586–87, ABAEV 1958: 325–26 with refs.) vs. D *cirt*, I *cyrt* “tombstone, grave”. As I can imagine no other possible source for a vowel in this position, the presence of *-E* suggests that the reflex of PIr. word-final **-ah* had not yet disappeared by the time of the inscription; it has been transcribed above as *ī*²⁸.

The other source for medieval Ossetic consists of two lines in the Byzantine court official Ioannes Tzetzes’s *Theogony* (twelfth c.), in what he denotes as “Alanic”. This intriguing text has been the subject of several studies; the two most recent, BIELMEIER 1993 and TESTEN 1994: 312–15, take into account the new reading of HUNGER 1953, based on the Codex Vindo-bonensis of the *Theogony* discovered by Hunger in the Österreichische Nationalbibliothek. The relevant lines are given below, with Tzetzes’s Alanic in italics followed by the reconstructed medieval Ossetic.

- 18 τοῖς ἀλανοῖς προσφθέγγομαι κατὰ τὴν τούτων γλώσσαν.
 19 καλὴ ἡμέρα σου αὐθέντα μου ἀρχόντισσα πόθεν εἶσαι.

- 20 *ταπαγγὰς · μέσφιλι · χσινὰ · κορθὶ · κάντα; καὶ τᾶλλα ·*
 *dæ ban x^wærz, mæ sfili, (æ)xsijnæ, kurθi kændæ (?)
- 20a ἄν δ'ἔχη ἀλάνισσα παπαῖν φίλον: ἀκούσαις ταῦτα ·
- 21 οὐκ αἰχύνεσσι αὐθέντρια μου νὰ γαμῆ τὸ μουνὶν σου παπαῶς ·
- 22 *τὸ φάρνετζ κίντζι · μέσφιλι · καιτζ · φουὰ · σαοῦγγε ·*
 *du færniž(æ), kinži mæ sfili, kæjçi fæwa sawgin

The Alans I greet in their language:

“Good day to you, my lord, lady, where are you from?”

“Good day to you (lit. “your day be good”), my lord, lady, where are you from?” and other things:

When an Alan woman takes a priest as her lover? You might hear this:

“Aren’t you ashamed, lordly lady, that a priest is sleeping with you?”

“Are you ashamed, bride of my lord, who will have (‘whose is to be’) a priest?”²⁹

It is clear that the characteristic Ossetic rounding of *a to *o before nasals has not yet occurred in this text: *ταπαγγὰς*, corresponding to modern D *dæ bon x^warz*, I *dæ bon xorz* “your day be good”, contains an *a* in *ban* (παγ) “day” vs. D, I *bon* (BIELMEIER 1989a: 242, THORDARSON 1989a: 460)³⁰. In contrast to Zelenčuk TZHPΘE, there is no trace of word-final *-ah in παγ or γὰς, whereas PIr. *-ā is preserved as -α in χσινὰ “(esteemed) lady, madam” (D *æxsijnæ*, I *æxsin* < POss. *(æ)xsijnæ < *xšinya ← PIr. *xšaiθnī; cf. n. 20)³¹.

The scanty evidence of the Zelencuk inscription and the *Theogony* thus confirms that the reflexes of PIr. masc. *a*-stem nom. sg. *-ah and fem. *ā*-stem nom. sg. *-ā remained distinct in medieval (pre-)POss., as indeed they do in present-day Digor: *-ah > D. I -Ø, whereas *-ā > I -Ø but D -æ³².

PIr.	pre-POss.	POss.	Digor	Iron
*-ah	*-i	-Ø	-Ø	-Ø
*-ā	*-a	*æ	-æ	-Ø

The final -E of Zelenčuk TZHPΘE suggests that the early Oss. continuation of PIr. *-ah was some sort of front vowel (although it could of course very well stand for [ə], cf. n. 28). I argue below on the basis of data from contemporary Ossetic that the reflex of word-final *-ah was high front *-i, as in pre-Sogdian (cf. section 2, n. 15).

4.2. The Relative Chronology of Pre-Ossetic Sound Changes

Given the paucity of textual evidence, the only way to determine whether the POss. stress distribution postulated in section 3 might have evolved at a sufficiently early date to be a common innovation of Ossetic and Sogdian is to construct a relative chronology of relevant sound changes. Owing to the overall conservatism and transparency of Ossetic historical phonology, scholars have succeeded in determining most of the major sound changes which the language has undergone since Old Iranian times; many had already been established by the time of Miller's grammar (1903: 14–39). A number of these changes find a close match in the historical phonology of Sogdian, e.g., intervocalic voicing, coloring of vowels by a following *i, *y or *u, *w (*i-* or *u-*umlaut), and syncope of unstressed vowels³³. The method of internal reconstruction now allows us to place these developments in relation to one another, as follows.

1) Generalization of Collective *-tā as Plural Suffix

The usefulness of the plural for purposes of relative chronology is complicated by its idiosyncratic phonological evolution. Cf. the comments of BAILEY (1945: 25):

...the *-t-* is treated as if initial, remaining therefore *-t-* between vowels and after nasals, whereas Old Iranian intervocalic *-t-* passed to *-d-*. The *-tæ* can then be identified with Old Iran. *-tā* in semi-independence in a compound, which has resulted in the change of **-tā > *-ta > *-tæ*, while as an independent monosyllable **tā* became *ta* as **mā* became *ma* with *-a*, and in the final syllable of a word *-ā* became Digor *-æ*, and was lost in Iron: *madæ, mad* 'mother'³⁴.

Thus, although it is likely that **-tā* did not become the productive plural suffix until after voicing of intervocalic PIr. *p, *t, *č, *k had ceased to operate,³⁵ its phonological "semi-independence" with respect to other sound changes makes any chronological inferences necessarily tentative.

If **-tā* was suffixed to the stem, the plurals of masc. (*a*-stem) and fem. (*ā*-stem) nouns would have ended in **-a-tā* and **-ā-tā*, respectively. On the other hand, if **-tā* was added to the nom. sg., the respective preforms would have been masc. **-i-tā* and fem. **-ā-tā* (or **-i-ta*, **-a-ta*; cf. (2b)). For evidence in favor of the latter hypothesis, see (2a) below.

2a) Word-final *-ah > *-i

The first piece of evidence for positing high front *-i as the sound-change development of *-ah is the appearance of *l* in the pl. of old *r*-stem relationship nouns, which must have added collective *-tā to the OIr. nom. pl. in *-ah:³⁶

D *fiddæltæ*, I *fydæltæ* “fathers” < POSS. *fidæltæ < *fidali-ta < *fidari-tā
← *pitari < Plr. *pitarah (to D *fidæ*, I *fyd* < POSS. *fidæ < Plr.
*pitā);

D *maddæltæ*, I *madæltæ* “mothers” < POSS. *madæltæ < *mādali-ta <
*mādari-tā ← *mātari < Plr. *mātarah (to D *madæ*, I *mad* < POSS.
*madæ < Plr. *mātā);

D *ærvaddæltæ*, I *ærvadæltæ* “relatives, brothers” < POSS. *ærvadæltæ <
*brādali-ta < *brādari-tā ← *brātari < Plr. *brātarah (to D *ærvadæ*,
I *ærvad* < POSS. *ærvadæ < Plr. *brātā)³⁷.

Since Plr. *r otherwise becomes *l only before *i (and *y in *ry > *l; see (4)), these relic plural formations presuppose a development of Plr. *-ah > *-i and subsequent loss by the POSS. stage. Cf. once again Zelenčuk TZHPΘE < Plr. *čiθrah, where E presumably denotes a front vowel³⁸.

This *-i < *-ah actually survives in plurals to two classes of nominals: 1) those whose stems end in two consonants (with some exceptions, mostly clusters of sonorant + stop), e.g., D *ærs-i-tæ*, I *ærs-y-tæ* to sg. *ars* “bear”; D *mist-i-tæ*, I *myst-y-tæ* to sg. D *mistæ*, I *myst* “mouse”; and 2) nominals in *-a-kah, *-u-kah (i.e., *-ka- extensions of old *a*- and *u*-stems; POSS. *-æg. *-ug > D -æg, -ug, I -æg, -yg); cf. MILLER 1903: 41, AXVLEDIANI 1963: 80–82, ABAEV 1964: 12–15, BAGAEV 1965: 131–35, 192, ISAEV 1966: 35–36, THORDARSON 1989a: 469, TESTEN 1997: 720. As one might expect, examples of the latter type are numerous: cf. D *kosg-u-tæ*, I *kusž-y-tæ* to D *kosæg*, I *kusæg* “worker”; D *kærdæg-u-tæ*, I *kærdæž-y-tæ* to D, I *kærdæg* “grass”; D *mæsg-u-tæ*, I *mæsg^w-y-tæ* to D *mæslug*, I *mæsyg* “tower”; D *γæzdug-u-tæ*, I *qæzdyž-y-tæ* to D *γæzdug*, I *qæzdyg* “happy, prosperous”³⁹. The D -i-, I -y- of these pl. forms cannot be simply dismissed as an epenthetic vowel: Although Ossetic provides many examples of prothetic æ- before initial clusters of metathesized fricative + *s or *r + obstruent (MILLER 1903: 36, THORDARSON 1989a: 465), e.g., D, I *æfsad* “army” < Plr. *spāda-, D, I *ærvadæ* < Plr. *brātā, D, I *ærtæ* “three” < Plr. *θayah (or sim.; cf. n. 48 [end]), prothesis and epenthesis are otherwise limited and variable synchronic phenomena, cf. ABAEV 1964: 4, BAGAEV 1965: 39–41, THORDARSON 1989a: 465.

The only remaining possibility, then, is that early Ossetic formed plurals by directly suffixing coll. *-tā (or *-ta; cf. (2b) below) to the nom. sg., rather

than the OIr. nominal stem: hence masc. *a*-stem sg. *-i, pl. *-i-tā (*-i-ta). For a close parallel, cf. Sogdian contracted *aka-stem dir. pl. -ēt < *-a'i-tā ← nom. sg. *-aki + coll. *-tā, e.g., S *z'tk* “son”, i.e., [zātē] < *zāta'i < *zātakah, pl. *z't'yt* [zātēt] (TEDESCO 1926: 110–17, 116–17 n. 2 [preform], BENVENISTE 1929: 80, SIMS-WILLIAMS 1989b: 183, 190). This pre-POss. pl. *-i-tā (*-i-ta) may have spread to fern, *ā*-stem nouns in *-ā (*-a), replacing expected *-ā-tā (*-ā-ta), e.g., D *mist-i-tæ*, I *myst-y-tæ* (see above) or D *kinz-i-tæ*, I *čynz-y-tæ* to D *kinzæ*, I *čynz* “bride, daughter-in-law”; similarly in Sogdian, *ākā-stem dir. pl. -ēt may have been taken over from the *aka-stems. It is also possible, however, that both languages have generalized *-I < masc. nom. sg. *-ah as a “linking vowel” before the pl. suffix: thus pre-Sogd. *ākā-stem pl. *-āk-i-tā > *-ā'itā > -ēt (SIMS-WILLIAMS, personal communication)⁴⁰.

2b) Shortening of Word-final Long Vowels in Polysyllables: *-ā > *-a

This probably early change, the exact relative chronology of which cannot be determined, may more accurately be stated as a loss of phonemic length contrast in word-final position: both PIr. *-ā and *-a become pre-POss. *-a, whence POss. *-æ. Word-final *-ā is of course continued by old feminine *ā*-stems in POss. *-æ > D -æ, I -Ø, as well as POss. pl. *tæ (cf. [1] above). PIr. *-a, on the other hand, is reflected in the endings of the imperative and optative sg., e.g., iptv. 2sg. D *kæn-æ*, I *kæn* “do!” < POss. *kæn-æ < PIr. *-a, D opt. sg. 2 *kænisæ*, 3 -*idæ* “you, s/he may do” [I *kæn-is*, -*id*] < POss. *-sæ, *-dæ < PIr. mp. *-ša, *-ta⁴¹.

3) *ri > *li, *ry > *l

See (2a) above on *r*-stem pl. *pitarah → *fidari-tā > *fidali-ta > POss. *fidæltæ > I *fydæltæ* “fathers” [D *fiddæltæ*]; sim. I *madæltæ* “mothers”, *ærvadæltæ* “relatives, brothers” [D *maddæltæ*, *ærvaddæltæ*]. That this change had taken place already by early medieval times is confirmed by the name of the Ἀλανοί ‘Alans’ < *aryān- (BIELMEIER 1989a: 241), which survives in the Ossetic etymonym *allon*, attested in the epic of the Narts (ABAEV 1949: 245–46, 1958: 47–48, 545–46)⁴². The shift of *r > *l before *i, and presumably also *ry > *l, must have preceded the syncope of unstressed *i (6); the absence of umlaut in *allon* indicates that *y was lost in the cluster *ry before *a > *ai / Cy (see [4] below; for other examples of non-“epenthesis”, cf. ABAEV 1949: 245).

4) Umlaut Effects: *a > *ai / Ci, Cy, *a > *au / Cu, *u > *i / Ci.⁴³

Examples are numerous:

*a > *ai / Ci⁴⁴

*kanikā > *kainiča > POss. *kinžæ > D *kinzæ*, I *čynž* “bride, daughter-in-law” (Sogd. *knc* “girl”. Av. *kainiiā-* “unmarried girl”, cf. Skt. *kanā-*, *kanyā-*; TESTEN 1994: 300–302)⁴⁵.

*paš(m)-ikā > *faiš(m)iča > *fešča > POss. *festæ > D *fest(æ)*, I *fist* “wool from the spring shearing” (dimin. to *pašman- > D *fans*, I *fæsm* [for *fasm?*] “wool from the autumn shearing”, cf. Pers. *pašm* “wool”; TESTEN 1994: 305)⁴⁶

*a > *ai / _ Cy⁴⁷

Plr. *araθni- “elbow” → *arai(θ)nyā > *arinya > POss. *ærijnæ > D -*ærijnæ* in *cæng-ærijnæ* (lit. “hand-elbow”, cf. *cong* “hand”), I -*ærin* in *ælm-*, *ærm-ærin* “cubit, ell (unit of length)” (Av. *arəθna-* “elbow”, *frā-rāθni-* “cubit”, Ved. *aratnī-*; ABAEV 1958: 29, 300, BENVENISTE 1959:18)

Plr. *madya- “middle” → *madya-kah > *maidaki < POss. *medæg < D *medæg*, I *midæg* “within”

*suxrā zaranyā “red gold” (ABAEV 1979: 190) or *sux(tā) zaranyā “burnt gold” (THORDARSON 1989a: 460) > *suyzarainya > *suyzarinya > POss. *suyzærijnæ > D *suyzærijnæ*, I *syuzærin* “gold”

*a > *au / _ Cu⁴⁸ (with *au > *u next to labial consonant)

Plr. *aruša- > *aurušah > *orši > POss. *ors > D *uors*, I *urs* “white” (Av. *auruša-* “white”, Ved. *arušá-* “reddish”; BARTHOLOMAE 1904: 190–91)

Plr. *madu > POss. *mud > D *mud*, I *myd* “honey”

Plr. *paru > POss. *fur > D *fur*, I *fyr* “much” (D *fuldær*, I *fylldær* “more” < POss. *fuldær, dissimilated from *furdær; THORDARSON 1989a: 465)

Plr. *paću > POss. *fus > D *fus*, I *fys* “sheep” (and possibly *paću-mant- “having cattle” > POss. *fusum > D *fusum*, I *fysym* “host”, cf. Ved. *paśu-má(n)t-*; TESTEN 1994: 308)

*u > *i _ / Ci

*mušikā > *mišiča > *mišča > POss. *mistæ > D *mistæ*, I *myst* “mous(i)e” (dimin. to Plr. *mūš- “mouse”, cf. Pers. *mūš*, Ved. *múš-*)⁴⁹

The evidence of “honey”, “much”, and “sheep” demonstrates that umlaut must have preceded the apocope of word-final short vowels (cf. [8] on *-i > *-Ø); the examples of “bride”, “spring wool”, and “mouse”, in which *i colors

the preceding vowel before being lost, confirm that umlaut must also have taken place prior to the syncope of unstressed word-internal short vowels (6)⁵⁰.

5) Stress Shift

Stress is assigned to the first heavy syllable in the prosodic unit, i.e., the first syllable containing a long vowel or diphthong; otherwise stress falls on the final syllable.

6) Syncope of Unstressed *a, *i, *u in Open Syllables

Cf. the examples of *i*-umlaut in (4), e.g., *kainiča > POss. *kinžæ, *mišiča > POss. *mistæ. As noted in (2a), pl. *-i-ta to nouns in *-i (extended analogically to old feminines in *-a) has in most cases been syncopated to *-ta > POss. *-tæ, being preserved after (most) clusters of two consonants or the common suffixes *-ag-, *-ug-. The loss of the suffixal vowel in plurals to nouns in *-VCag-, *-VCug-, e.g., I *kus ž-y-tæ* “workers” [D *kosg-u-tæ*; cf. n. 39] < POss. *kosgitæ < *kosagi-ta, D *mæsg-u-tæ*, I *mæsg^w-y-tæ* “towers” < POss. *mæsgutæ (cf. n. 39) < *masugi-ta, suggests that syncope operated from left to right; otherwise we should expect POss. *kosægtæ > D “*kosægtæ*”, I “*kusægtæ*”, POss. *mæsugtæ > D “*mæsugtæ*”, I “*mæsygtæ*”.

In addition to the pl. “linking vowel” *-i-, the connecting vowel *-a- (< Plr. *-a- < PIE *-o-) in nominal compounds was also lost; its earlier presence is reflected in the voicing of the initial consonant of the second member of compounds, cf. n. 35. The most important result of syncope was the establishment of a widespread, morphologically conditioned alternation between *æ* and *a* in nominals of the form *-aCC-, on which see (9).

7) Unstressed *ya > *i

Aside from the old case endings, there are two possible examples:

- i) the proposed definite article *i < *ya < Plr. relative pron. *ya- (BAILEY 1945: 15–20; cf. Sogd. *yw*, Khwar. ’y, y’, Av. *ya-*), e.g., in D. *bælas* “tree” vs. *i bælas* “the tree”, whence I *bælás* vs. *báelas* < *i *báelas* with synchronically morphologized stress shift (ABAEV 1924: 155, 1964: 11, GERSHEVITCH 1948: 61. AXVLEDIANI 1963: 50–51, BAGAEV 1965: 60, THORDARSON 1989a: 466, 468, TESTEN 1997: 729: cf. I *mýsyn* “compose” < *imísun [D *imísun*]):
- ii) the *ežāfe*-construction with *i < *ya (also from Plr. *ya-), e.g., in D *mæ fid-i zæronð*, I *mæ fyd-y zæronð* “my old father”, lit. “my father-who (is) old” (beside usual *zæronð fid/fyd*; BAILEY 1946: 205–6, THORDARSON 1989a: 467, cf. AXVLEDIANI 1969: 49–50 on “inversion”).

Unfortunately, both of these could also continue masc. *yi < PIr. *yah (GAv. *yā*, *yas-cā*, YAv. *yō*; cf. BIELMEIER 1982: 67 on *ežāfe*-*i), rather than neut. *ya < PIr. *yad (YAv. *yaŋ*), so their probative value is thereby reduced. This *-i did not merge with pre-POss. *-i < PIr. *-ah (cf. [2a] above), which is lost in POss. and had probably been reduced to some sort of schwa by this stage; cf. (8) below.

8) Apocope of *-ī < *-i

As argued in section 4.1, word-final pre-POss. *-i < PIr. *-ah, or rather a reduced front vowel *-ī, is preserved in the form TZHPΘE in the Zelenčuk inscription. If one trusts the evidence of the *Theogony*, Tzetzes's *ταπαγγάς* for *[dæ ban x^warz] (D *dæ bon x^warz*, I *dæ bon xorz*) indicates that this vowel had fallen by the twelfth c. A.D.; it is definitely gone in the Jász word list, where we find *daban horz*, *dan*, etc. (cf. n. 30). The apocope of *-ī < *-i may therefore be dated to the beginning of the 2nd millennium.

9) *æ > *a (or *a > *ā) before Tautosyllabic Consonant Clusters

Following apocope of *-ī, *a was lengthened to *ā – or, if the contrast between *a and *ā had already been reinterpreted as one of quality, *æ was backed and “strengthened” to *a – when followed by two tautosyllabic consonants. This sound change affected two groups of forms: nouns of the shape *CæCC (but not *CæCCæ; cf. n. 26), e.g., D, I *avd* “seven” < POss. *avd < *ævd ← PIr. *hafta (cf. n. 41), D, I *zærond* “old” < POss. *zærond < *zærand < *zærend ← PIr. *jar-ant- (ABAEV 1989: 305, cf. Sarmatian PN *Ζαρανδος*; not < *-ānt-, contra THORDARSON 1989a: 464), D *γarm*(m), I *qarm* “warm” < POss. *γarm < *γærm < PIr. *garmah; and preterite participles of the shape *CæCt, *CæCd, e.g., D, I *bast* “bound” < POss. *bast < *bæst < PIr. *basta- < *bnd-ta- (to D *bæddun* [*bættun*], I *bæddyn* [*bættyn*] “bind” < PIr. *band-), D, I *mard* “killed, died” < POss. *mard < *mærd < PIr. *mr̥-ta- (to D *marun*, I *maryn* “kill”, D *mælnun*, I *mælyn* “die”; cf. n. 54).

One important result of this development was the creation of an alternation between *æ* and *a* in nominals of the form *CaCC. When a suffix beginning with a vowel was added to pre-POss. *CæCC, the resulting form was syllabified *CæC.CV- and so did not undergo the change of *æ > *a. In addition to plurals in *-i-tæ, e.g., D, I *ars* “bear”: pl. D *ærs-i-tæ*, I *ærs-y-tæ* (cf. (2a) above), cf. D, I *fonz* “five”: *fænzæm*, D *fænzæjmag* “fifth”. Once this alternation had become established, it would not have been difficult for it to spread to other cases of derivation or compounding, e.g.,

D, I *mary* “bird”: pl. *mærytæ*;

D *ænbal*, I *æmbal* “companion, comrade”: pl. D *ænbælttæ*, I *æmbælttæ*;⁵²
 D, I *fars* “side”: *færssag* “side” (adj.), “accessory”;
 D, I *avd* “seven”: *ævdsæron* “seven-headed”, *ævddæs* “seventeen”;
 D, I *rast* “straight”: *ræst-vændag* “whose way is straight”.

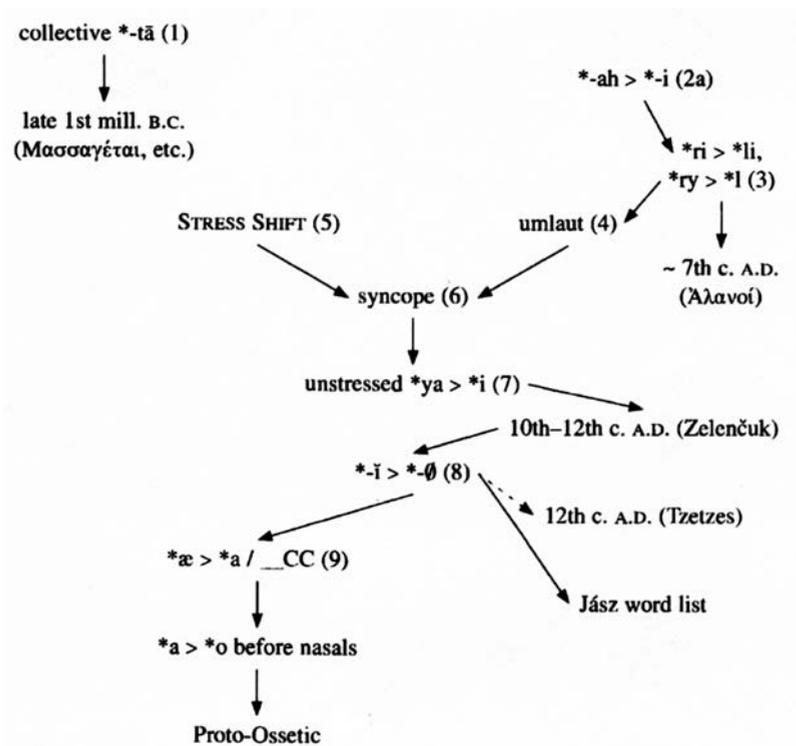
In both dialects of contemporary Ossetic, the alternation of *a* (*o* before nasals) with *æ* has become morphologized: it is now associated with plurals, various derivatives, and certain compounds of nouns in *CaCC, *CoNC.⁵³ This pattern has not surprisingly spread to nouns with *a*, *o* < pre-POss. *ā, e.g., D, I *xæzar* “house”, pl. *xæzærttæ*; D, I *don* “river”, pl. D *dænttæ*, I *dættæ*. Not all such nouns have been affected, however: a number of common, mostly monosyllabic stems have preserved their pls. in *a* or *o*, e.g., I *sag* “deer”, pl. *sagtæ*, *bon* “day”, pl. *bontæ* (ABAEV 1964: 16–17, although these could be due to analogical pressure from the sg.), *xæzar-on* “resident of the house”, pl. *xæzar-ontæ* and other nouns in *-on* (THORDARSON 1990: 260); cf. also *arv* “heaven”, *arvon* ~ *ærvon* “heavenly” and *art* “fire”, *art-ag* “fuel” (262, 263)⁵⁴.

Within nominal declension, the operation of *æ > *a / __ CC# would have produced alternations between *CaCC in the nom. and *CæCCV- elsewhere, e.g., gen./iness. *CæCCi, dat. *CæCCæn (whence by analogy all. *CæCCmæ?). As one might expect, this intraparadigmatic alternation has generally been leveled out: the oblique stem *CæCC- survives only in a few fossilized adverbials, e.g., I *færsyl* “on the side”, *ræstæj* “without fault”, originally adess. to *fars* “side” and abl. to *rast* “right, correct”, respectively (gen./iness. *fars-y*, *rast-y*; cf. ABAEV 1964: 5, THORDARSON 1989a: 460)⁵⁵.

The chronological relationships which emerge from this discussion may be represented in the diagram (see p. 19).

As a result of these changes, masc. (*a*-stem) loc. sg. *-ayā and fem. and pl. (*ā*-stem) instr. *-ayā and gen./abl. *-ayāh (probably also dat. *-ayāi and loc. *-ayām) would have developed to *-C-aya (2b) > *-C-ya (6) > *-C-i (7); this *-i was subsequently generalized as the oblique ending for all nouns, like Late Sogdian *-ī* and Yaghnōbī *-i*, and survives in the contemporary gen. and iness. ending D *-i*, I *-y*.

If we now compare the relative chronology arrived at here for Ossetic with that given in section 2 for Sogdian, we find that the two languages correspond to a large extent. Although the change of *ri > *li, *ry > *l is of course peculiar to Alanic/Ossetic, the developments shared by the two languages have taken place in the same order: in particular, the Sogdian Rhythmic Law-Ossetic stress shift must have preceded the syncope of unstressed short vowels, which in turn preceded the change of unstressed *-yā > *-i⁵⁶. This parallelism thus attests to an even stronger historical affinity between Ossetic and its nearest East Iranian relatives than heretofore believed.



5. Implications for Northeast Iranian Dialectology

The present study is hardly the first to posit a close relationship between Ossetic and Sogdian. Over half a century ago, BAILEY (1945, 1946) examined a number of lexical isoglosses which appear to connect Ossetic with Sogdian and other Eastern Middle Iranian languages. These vocabulary items are joined by at least one major morphological innovation peculiar to Ossetic, Sogdian, and Yaghnōbī: the formation of the pl. with the originally collective suffix **-tā*, already attested in ancient Greek records of the names of Scythian and Sarmatian tribes living on the steppes north of the Black Sea, e.g., *Μασσαγέ-ται* and *Σαρμά-ται* (BAILEY 1945: 24–26, SIMS-WILLIAMS, 1989a: 170)⁵⁷.

Considering that frequent migration was a salient characteristic of peoples of the Eurasian steppe, one might most logically treat the Northeast Iranian steppe dialects of the first millennium B.C. and early centuries A.D. as a dialect continuum, stretching from western Ukraine eastwards to what is now Chinese Turkestan (Xinjiang). In addition to the Ossetic-Sogdian correspondences presented by Bailey, there is evidence that an early form of Northeast Iranian closely akin to Ossetic was spoken at the eastern edge of this realm. Among the

numerous Iranian loanwords in the Tocharian languages, spoken in the Tarim Basin in the first millennium A.D., several exhibit striking similarities to pre-Proto-Ossetic, namely TB *peret*, TA *porat* “ax” < PT **peretə*, cf. D, I *færæt*; TB *witsáko* “root” < PT **wet^səko*, cf. D *yedagæ*, I *widag* < POss. **w^(y)edagas*, and TB *ekšinek** “dove” (adj. *ekšinekamñe*), cf. D *æxsijnæg*, I *æxsinæg* “wild dove, pigeon” < **axšainyaka-* “dark-colored (gray?)”⁵⁸. These borrowings may be approximately dated to the second half of the first millennium B.C. (KIM 1999: 126, 129–32) and reveal contact in eastern Central Asia during this period between speakers of pre-Proto-Tocharian and an Iranian language closely resembling pre-POss. Much later, in the seventh c. A.D., the Alans, believed to be the (linguistic) ancestors of today’s Ossetes, are found back on the western steppes and in the Balkans.

Within such an enormous geographical area, linguistic innovations would have begun in one place and diffused to neighboring regions, but only rarely spread across the entire steppe. The continuing accumulation of locally specific changes gradually differentiated this originally more uniform chain of NEIran. dialects into an early form of Ossetic, the various, mostly unattested or indirectly recorded dialects of Sogdian and, far to the east in Xinjiang, Khotanese and Tumshuqese Saka. This explains why Ossetic has more features in common with Sogdian than with Saka: the latter lies at the opposite end of the steppe from Ukraine and southern Russia, whereas the Sogdian-speaking regions of Central Asia remained in closer contact with the ancestors of the Ossetes through migration and trade. A schematic representation of Northeast Iranian dialects and their diachronic development from antiquity to the present might look like this:

500 B.C.	Scythian		
0	Sarmatian		
		SOGDIAN	
A.D. 500	Alanic		
1000	Zelenčuk, Tzetzes	Late Sogdian	Saka (Khotanese, (Tumshuqese)
1500	Jász		
2000	Ossetic		Yaghnōbī

The account of pre-POss. obl. *-i offered here presupposes that the early Ossetic accent shift described above, and other related changes affecting unstressed vowels (e.g., *-ya > *-i), were shared by neighboring, westerly dialects of Sogdian, in which the accent shift is familiar as the Rhythmic Law and likewise leads, via additional developments, to a unitary obl. ending *-ī* in heavy-stem nouns. Notably, the Sogdian dialect ancestral to modern Yaghnōbī appears to have escaped the effects of the Rhythmic Law (cf. n. 19); thus the accent shift in question came to encompass much, but not all, of the Osseto-Sogdian dialect area.

The derivation of oblique pre-Proto-Ossetic *-i and Sogdian *-ī* from Old Iranian nominal case endings of the form *-ayā(h) may thus be added to the list of isoglosses shared by the two languages. That the ancestor of Yaghnōbī never underwent the typically Sogdian redistribution of stress is problematic only if one adheres to a rigid *Stammbaum* model for the historical evolution of East Iranian, or of Iranian in general⁵⁹. The evidence listed above for a large-scale dialect continuum spanning the Eurasian steppes underscores the inadequacy of such an approach in this case, and instead favors a more nuanced “wave-model” dialectological approach to the innovations characterizing, and historical interrelationships among, the attested medieval and modern Northeast Iranian languages⁶⁰.

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Abbreviations: *BSOAS* = *Bulletin of the School of Oriental and African Studies*, *IF* = *Indogermanische Forschungen*; *TPS* = *Transactions of the Philological Society*; *ZfI* = *Zeitschrift für Indologie und Iranistik*.

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NOTES

A preliminary version of this paper was presented at the 23rd Penn Linguistics Colloquium at the University of Pennsylvania, 27-28 Feb. 1999, and published under the title “The Origin of the Pre-Ossetic Oblique Case Suffix and Its Implications”, in vol. 6.1 of the *University of Pennsylvania Working Papers in Linguistics*. Thanks to David Testen for introducing me to the study of Ossetic, to him and Nicholas Sims-Williams for their many helpful and enlightening comments on earlier drafts, and to Thomas McFadden and Justin Mott for looking over footnotes 33 and 45, respectively. I of course remain entirely responsible for all views and errors contained herein.

Where relevant, B, M, and C denote Sogdian spellings in Buddhist (i.e., Sogdian). Manichaean. and Christian (Syriac) script, respectively. Abbreviations: C = consonant. T = obstruent, R = sonorant, V = vowel, V̄ = long vowel, V̆ = short vowel, sg. = singular, du(al), pl(ural); masc(uline), fem(inine), neut(er); pron. – pronominal, pronoun; adj. = adjectival, ad-jective; nom(inative), acc(usative), instr(umental), dat(ive), abl(ative), gen(itive), loc(ative), voc(ative), obl(ique), all(ative), iness(ive), adess(ive); pres(ent), imp(er)f(ect), pret(erite), act(ive), mid(dle), m(edio)p(assive), i(m)p(era)t(i)v(e), opt(ative), p(ar)t(i)c(i)p(le); A(tharva) V(eda), Att(ic), Av(estan), D(igor). G(āθā), Gr(cek), Hom(eric), I(ron), l(ndo-)E(uropean), lon(ic), Ir(anian), Khot(anese), M(iddle), O(ld), Oss(etic), P(ersian), Pers = Modern Persian, P(roto-), P(roto-)In(do-)Ir(anian), P(roto-)Sl(avic), R(ig) V(eda), Russ(ian), S(ans)k(ri)t, S(erbo-)C(roatian), Sogd(ian), T(ocharian) A, B, Ved(ic), Y(ounger).

¹ According to the 1979 Soviet census, ca. 480,000 (THORDARSON 1989a: 456); cf. also the numbers in TESTEN 1997: 707–8. The February 1996 *National Geographic* gives an estimate of 509,000 (“In Focus: The Fractured Caucasus”, p. 130).

² Iron, generally the more innovative of the two, is spoken by a large majority of Ossetes and provides the basis for the modern literary language.

³ For details on the use of the cases, cf. VOGT 1944, AXVLEDIANI 1963: 94–100, ABAEV 1964: 17–19, BAGAEV 1965: 141–43, 148–61, ISAEV 1966: 38–43.

⁴ Cf. EMMERICK 1968: 257–59. On the usage of the Waxī ending, cf. PAXALINA 1975: 43–45. The Khotanese and Pāmīr forms were first connected by TEDESCO (1926: 156, 160–61), who compared them with Ved. *a*-stem instr. *-ena*, now considered an Indo-Aryan innovation. Based on the gender differentiation of Munjī masc. *-an*, fem. *-in*, MORGENSTIERNE (1973b: 123) suggests that the Pāmīr endings continue masc. **-ana* and analogical fem. (originally *ī*-stem) **-īna*. – For another possibility, cf. BIELMEIER (1982: 63), who takes Oss. *-æñ* from Pīr. gerunds in **-ana-*.

WEBER (1980: 130–31) also proposes that the pronominal allative, e.g., **amæ* “to this (one)” < Pīr. dat. **ahmāi*. was reanalyzed as **a-mæ* with the stem **a-* of the nominative and genitive (cf. n. 9), and the new ending **-mæ* was generalized to nominal inflection; similarly, although less explicitly, BIELMEIER 1982: 63.

⁵ Cf. OP *Mačiya*- “in, of Maka”, *Ākaufačiya*- “inhabitant of Ākaufaka (Kohistan)”, with *-iya-* after short syllable vs. the expected Sievers’s Law reflexes of **-yo-*, e.g., *mṛš(i)yu-* < **mṛt-yu-* “death”, *martiya-* “human” < **mart-ya-* (Ved. *mṛtyú-*, *máriya-*; MAYRHOFER 1986: 161 n. 267). On the (largely non-Hittite) evidence for **-iyo-* in Anatolian, cf. MELCHERT 1990. As MAYRHOFER (1986: 161 n. 267, 165–66) observes, the basic meaning of this always disyllabic suffix (“in etwas befindlich, bei etwas”) favors a connection with the loc. ending **-i*, which is likewise always syllabic: **-i(y)o-* < loc. **-i-* + **-o-*, rather than (pre-)PIE **-iHo-*. MILLER (1903: 45–46) is agnostic as to the origin of iness. **-i*.

⁶ Elsewhere in Indo-European, adjectives have occasionally been reinterpreted as case endings: cf. Arm. gen./dat./abl. pl. *-c’*, generally derived from adjectival **(i)sko-* (Gr. *-ισκος*, Goth. *-isks*, OE *-isc*; cf. Luv. *-izza-*, Lyc. *-is(e)-* < **-i(s)ko-*; MELCHERT 1994: 234, 288 with refs.), e.g., *mardoc’* “of/to/from men” < ** “of men”* < **mṛtoško-* (for **mṛt-isko-*) “human, pertaining to man” to *mard* “human” < **mṛtó-* “mortal, human” (MEILLET 1936: 71–72, Godel 1975: 106). (The opposite reanalysis may underlie the Oss. adj. suffix *-on*, if from **-ānam* ← PIr. *a-* stem gen. pl. **-ānām*; cf. n. 15.) Nowhere, however, does a former adjectival suffix come to occupy so central a place in the case system as Miller alleges for pre-POss. **-i* < PIr. **-iya-*.

⁷ This methodological shortcoming is known to scholars of creole genesis as the “Cafeteria Principle”, i.e., the practice of attributing the origin of individual features of a given, say, English-based Caribbean creole to any possible English dialectal superstrate, or to any number of imaginable West African substrate languages (Arends et al. 1995: 100, 328).

⁸ Within Iranian, cf. obl. sg. Yidgha *-en*, Munjī *-an*, abl./gen. sg. Waxī *-ən* < instr. sg. **-anā* (see above and n. 4) or obl. pl. Yidgha *-əf*, Munjī *-af*, Waxī *-əv* < instr. pl. **-abiš* or **-aibiš* (TEDESCO 1926: 156–61, MORGENSTIERNE 1973b: 123, WEBER 1980: 132–33). Note also the MP obl. pl. *-ān* < gen. pl. **-ānām*, which marks agents, indirect objects, objects of prepositions, nouns in genitival relationship, and optionally direct objects (SUNDERMANN 1989: 154–55; cf. Skjærvø 1983). Elsewhere in IE, the transitional Torlak dialects of Serbo-Croatian spoken in the area of Prizren, Kosovo contrast two cases in the plural, “eine nominativische (zugleich auch *casus generalis*) und eine dativische (auf *-am*)” (cf. standard SC dat./instr./loc. pl. *-ma* < PSI. dat./instr. du. **-ma*, kajkavian pl. dat. *-m*, instr. *-mi*, loc. *-h* < PSI. **-mū*, **-mi*, **-xū*; Ivić 1958: 35). Cf. also the Romanian obl. (i.e., gen./dat.) pl. article *-lor* < Latin gen. pl. *illōrum* vs. nom./acc. *-i*, *-le* < Lat. nom. pl. *illī*, *illae*.

⁹ At least in nominal declension; pronouns appear to have maintained a three-way case opposition, preserved especially in Digor, e.g., D *ual* “so many”, gen. *ual-e-i*, all. *ual-e-mæ*, adess. *ual-e-bæl* vs. dat. *ual-em-æn*. abl. *ual-em-əj*. iness. *ual-em-i* (MILLER 1903: 53–54, ISAEV 1966: 57–62, WEBER 1980: 130–31, BIELMEIER 1982: 60–61, THORDARSON 1989a: 472–73). The distinctive pronominal suffix *-e-* (which disappears after vowels, e.g., D, I *a* “this” [I also *aj*], gen. *a-j*. all. *a-mæ*, adess. *a-bæl* [I *a-uyl*] vs. dat. *a-m-æn*, abl. *a-m-əj*, iness. *a-m-i* [I *am* “here”]), is almost certainly to be connected with the **-ai-* of PIr. pronominal pl. gen. **-ai-šām*, dat. **-ai-byah*, loc. **-ai-šu* (cf. GAV. *yaēšqam*, *yaēibiiō*, *yaēšū* to relative *ya-*); the stem in *-m-* must likewise continue PIr. pronominal case forms in **-hm-*, i.e., dat. **-hmāi*, abl.

¹³ Not all of the forms given below actually appear; where unattested, they have been created on the pattern of other nouns of these classes. The light voc. endings *-e* (fem. sg.), *-te* (pl.) happen not to be attested with light stems, but are found with heavy stems (SIMS-WILLIAMS 1979: 338–39; cf. C pl. voc. *-ty* [-te] vs. obl. *-ty* [-ti]).

I follow SIMS-WILLIAMS (1982, 1989b) in denoting light stems with a following hyphen, hence light *ram-* vs. heavy *mēθ*; cf. also the forms in n. 12. On the fem. case endings, see n. 18; on the vowel preceding pl. **-tā*, see n. 40.

¹⁴ The most important exceptions are certain plurals in *-yšt* [-išt], obl. *-yšt-y* [-išt-i] to light stems denoting animate beings, e.g., *wyrk-yšt* “wolves”, *kwt-yšt* “dogs”, *βγ-yšt* “gods” (cf. Waxī *-išt*; TEDESCO 1926: 159 n. 2, SIMS-WILLIAMS 1979: 345 n. 71). Tedesco’s historical explanation (1926: 152–53) is ruled out by the heavy endings, which require stress on the suffix and hence pre-Sogd. long **-ī-*. SIMS-WILLIAMS (1979: 336–37, 344–46) is surely correct to analyze *-yšt* as OIr. nom. sg. **-īš* (sparsely attested in Avestan, cf. MAYRHOFER 1980: 134–39) + pl. **-tā-* (cf. *δρῶσκ-* “pupil, disciple” < nom. **driguš* + **-ka-*): thus *wyrkyšt* < **wṛkīš+tā*, *kwtyšt* < **kutīš+tā* to generalized *ī*-stem feminines *wyrk-*, *kwt-* (cf. Ved. *ṽṛkīh* “she-wolf” [on Old Norse *ylgr* cf. MAYRHOFER 1980: 131–32 n. 12], D *kuj*, I *k^yγž* “dog” [< **“bitch”*] < POss. **kud^y* < **kutī-*, Av. *sūnī-š* id.; SIMS-WILLIAMS 1979: 343–44, MAYRHOFER 1980: 137 with refs.).

For the rare pl. type of B *'kwtyh* [kut^yā] < **-yāh* (Ved. *devyāh*), C *qwtyy* [kut^yī] < **-yah* (Ved. *ṽṛkīyah*) and/or **-ayah* (*i*-stem, Av. *-aiiō*, Ved. *-ayah*), cf. SIMS-WILLIAMS 1979: 342–44, citing Gershevitch. – Note also archaic *-’[-a]* (e.g., *βγ’* [βγ-á] “gods” in the Ancient Letters) < PIr. **-ā* (< PIE coll. **-eh₂*, cf. GAv. *-ā*. Knot, *-a*; TEDESCO 1926: 109–10, 127, 131–32, HOFFMANN 1958: 13, EMMERICK 1968: 264, SIMS-WILLIAMS 1979:337, HOFFMANN and FORSSMAN 1996: 120) and gen. pl. B, M – *'n(w)* [-ān(u)] < **-ānam*, found in fossilized expressions such *βγ'n βγtm* [βγān βγtam] “most divine of gods, *devātideva*” (TEDESCO 1926: 97 [with art. *wyšn*], 110, SIMS-WILLIAMS 1979: 337; cf. n. 15 below).

On the derivation of Sogd. *-t'*, *-t* [-ta. t] from **-tā*, cf. TEDESCO 1926: 151, BENVENISTE 1929: 79, BAILEY 1945: 25; for earlier views, cf. MILLER 1903: 41–42. – On the treatment of **ī* in *žwān* < **jīwān-ā*, cf. n. 26.

¹⁵ As SIMS-WILLIAMS (1984: 204–5) emphasizes, proof that stress is the conditioning factor in these developments comes from 1) unstressed (clitic) forms of light stems, e.g., voc. *βαγ* “god!” < unstressed **baga* vs. voc. *βαγά* < **bagá*, copula *ast* < unstressed **astí* vs. (*a*)*stí* < **astí*, *δas* “ten” < unstressed **dasa* vs. *δasá* < **dasá*, postposition *-č* “from” < **-ača* < PIr. **(h)ača*, enclitic pron. 2sg. *-f* < **-fa* < PIr. **-θwā*; 2) aphaeresis of unstressed initial vowels in light stems, e.g., [stí] (C *sty*) < [astí] (B, M *'sty*) “is”, [nyu] (C *nyw*) < [anyú] (B, M *'nyw*) “other” (masc. acc. sg.); and 3) “prothetic aleph” (i.e., schwa) before initial consonant clusters which have arisen by syncope of an unstressed short vowel, e.g., [əβží] (B *'βzy*) < [βeží] (B *βzy-*, M *βyj-*) “evil” < **bazdyáh* (SIMS-WILLIAMS 1981b: 12).

The various *Auslautgesetzte* for Sogdian stressed endings after light stems may be read off from the paradigms above: **-a*, **-ā* > *-a* (voc. *ramá*, abl. *ramá*, nom. *waná*, *wanlá*), **-ah* > *-*

i (nom. *rami*), *-am > -u (acc. *ramú*). Wordfinal *-ām > *-a, e.g., in light-stem acc. pl. -t' [-tá] (never “-tw” [-tú]), acc. sg. fem. -' [-á] (occasional -w [-ú] is taken over from the masc.), cf. pronominal w' m' < *awām, *imām (SIMS-WILLIAMS 1981b: 15 n. 16, contra GERSHEVITCH 1954: §350, KLINGENSCHMITT 1972: 97–98). Gen. pl. B, M -'n(w) [-ān(u)] < *-ānam (cf. n. 14) has been secondarily shortened from PIr. and PInlr. *-ānām: this shortening, like that in ā-stem case endings (cf. n. 18), may be an East Iranian isogloss, cf. OKhot. -ānu < *-ānam (instead of “-āno” < *-ānām; EMMERICK 1968: 266), Oss. adj. suffix -on (< *-ānam? cf. n. 6).

¹⁶ Similarly, unstressed *wa, *wā becomes ū: (a)đú “two” < unstressed *duwā vs. (a)đwā < *duwā. nū “nine” < unstressed *nawa vs. nwá < *nawá (SIMS-WILLIAMS 1984: 205 n. 7).

Earlier studies assumed that unstressed word-final *-ya > *-θ and so were forced to explain heavy-stem obl. -ī as an extension of light-stem masc. gen. sg. -y (TEDESCO 1926: 123, GERSHEVITCH 1954: §1167). As SIMS-WILLIAMS (1982: 71–72) has observed, however, the vowel pointing of Christian manuscripts indicates that the latter is actually -y, i.e., [-ē], whereas the heavy-stem oblique ending is -y [-ī] (on the use of the points cf. SIMS-WILLIAMS 1979: 338–39 n. 18); Tedesco’s attempt to circumvent this difficulty is not convincing.

¹⁷ The ordering of (3), (4), and (5) was established by SIMS-WILLIAMS (1989b: 182). The *Auslautgesetze* in (1) can have taken place at any point before the contraction in (4), which produced, e.g., masc. *aka-stem nom. sg. -ē < *-a'i < *-akah, acc. -ō < *-a'u < *-akam (preserved in C2; 184); probably *-ā(h) > *-a preceded the reduction of unstressed *-ya > *-ī (3) as well.

¹⁸ Masc. gen. sg. *-ahya probably likewise developed to *-aya > *-ya > -ī. – The preforms for ā-stem gen./ dat. *-ayāh, loc. *-ayā, abl./instr. *-aya(h) find their counterparts in GAv. gen. -aiiā, dat. -aiiāi, YAv. loc. -aiia and Khot. gen./dat., abl./instr. -i'e < *-ayāh, loc. -i'a < *-ayā (i' denotes palatalization of a preceding vowel; contra EMMERICK 1968: 274, 276). The short vowel of these endings is probably an East Iranian dialectal feature (cf. Ved. gen./abl. -āyās, loc. -āyām), perhaps generalized from instr. *-āyā (GAv. Ved. -ayā; contrast OP instr., gen./abl., loc. -āyā, with the opposite leveling); cf. TEDESCO 1926: 140–41, HOFFMANN 1958: 13, HOFFMANN and FORSSMAN 1996: 58. – Note that BAILEY (1945: 25) already supposed that pl. gen. D -ti, I -ty continues PIr. *-tayāh, and thus that Oss. -tæ, like Sogd. -t', -t, derives from *-tā.

The “numerative” or counting form in D -i, I -y found after numerals, e.g., D *cuppar bæx-i*, I *cuppar bæx-y* “four horses” (MILLER 1903: 47, ABAEV 1964: 22, ISAEV 1966: 51–52; cf. Yaghnōbī *panč odám-i* “five people”, XROMOV 1972: 21–22), probably has a different origin; it cannot continue PIr. athematic nom. pl. *-ah > pre-POss. *-i (contra BIELMEIER 1982: 59, 65, THORDARSON 1989a: 468), which should have disappeared in both dialects (cf. sections 1, 4.1, 4.2 (2a)). SIMS-WILLIAMS (1979: 339–42) has convincingly derived the Sogdian numerative of light stems from the PIr. dual (masc. -' [-á] < PIr. *-ā [Av. -ā], fem./neut. -y, -yh, -yy [-é] < PIr. *-ai [Av. -ē], neut. obl. -y' [-yá] < PIr. gen. du. *-ayāh [Av. -ayā]), comparing the Bulgaro-Macedonian *brojna forma* in -a of masc. nouns, e.g., *déset bilét-a* “ten tickets” (< PSI. o-stem masc. nom./acc. du. *-a; cf. Russian and Serbo-Croatian, where -a is confined to

use with 2, 3, 4). Oss. *-i/-y* may likewise continue the dual only if the fem./neut. ending was generalized to all nouns (PIr. **-ā* should have given POss. **-æ > D -æ, I -Ø*) and word-final **-ai > POss. *-i* in polysyllables. At present I prefer to treat numerative *-i/-y* as the ordinary genitive: hence POss. **cuppār bæx-i*, literally “four of horse” (cf. AXVLEDIANI 1963: 96). Cf. the use of the gen. pl. with the numerals 5–20 (25–30. etc.) in Slavic, e.g., Russ. *pʹjatʹ knig* “five books”, lit. “five of books”, SC *dvádesēt dīnārā* “twenty dinars”.

In oblique cases, the quantified noun takes pronominal endings in Digor, e.g., gen. *avd bæx-e-i ~ bæx-i*, dat. *avd bæx-em-æn* “of, to/for (the) seven horses” (MILLER 1903: 49, ISAEV 1966: 50–51; replaced by nominal endings in Iron *avd bæx-y, -æn*); cf. Serbo-Croatian, where the higher numerals (and in the colloquial language, also “2”, “3”, “4”) have become uninflected, e.g. *o sèdam kònjima* (loc. pl.) vs. Russ. *o semí (loc.) konjác* (loc. pl.) “about (the) seven horses”. When used by themselves, Digor numerals also follow pronominal inflection, e.g., dat. *avd-em-æn* “to/for (the) seven”. Cf. the spread of pronominal inflection in Slavic numerals: from “1” and “2” in PSI. to “3” and “4” (Russ. gen. *trëx, četyrëx*, like *dvux*) and higher (Ukrainian *pʹjatʹ* “5”, gen. *pʹjatý* or pron. *pʹjatʹóx*. Slovene *pět*, gen. *pét-ih*, dat. *pét-im*). On the prehistory of Ossetic pronominal inflection, cf. n. 9.

¹⁹ Interestingly, Yaghnōbī appears to descend from a dialect of Sogdian which did not undergo the Rhythmic Law; cf. SIMS-WILLIAMS 1982: 76 n. 7, Bielmeier 1989b: 480 n. 1 with refs. SIMS-WILLIAMS (personal communication) suggests that pre-Yaghnōbī therefore had no stressed nominal endings corresponding to those of light stems in (literary) Sogdian, so that obl. *-i < *-ī < *-yā(h)* arose by sound change in the gen./dat., loc., and abl./instr. of all *ā*-stems (including plurals in **-tā*) and the loc. of all *a*-stems, then spread to the other *a*-stem obl. case functions: but cf. n. 56. (Otherwise TEDESCO [1926: 120–25], who proceeds from the assumption that heavy-stem nouns were originally uninflected; cf. n. 16 above.)

²⁰ ISAEV (1954: 230ff.) has posited a distinctively long vowel /ī/ for Digor, based on minimal pairs such as *dīn* “religion” (← Arabic) vs. *din* “you (dat. sg. clitic)”, *æxsīnæ* “mistress” vs. opt. 1sg. *æxsīnæ* “I would shoot”. Aside from (relatively) recent borrowings, for which I have no phonetic evidence for a contrast with short *i*, *ī* appears only before *n* in sequences of **-ainy- > *-iny-* (cf. n. 44) *> POss. *-ijn- > D īn, I in*. Cf. the following examples:

PIr. **abi-šaiθnī* → **abišai(θ)nyā > *avišinya > POss. *æfsijnæ > D æfsijnæ, I æfsin* “landlady, mother-in-law, housewife, hostess” (cf. Av. *aiβi-šaētan-* “inhabitant (of a house)”; ABAEV 1958: 110, BENVENISTE 1959: 19–20, ISAEV 1980);

PIr. **xšaiθnī* → **xšai(θ)nyā > *xšinya > POss. *(æ)xsijnæ > D æxsijnæ, I æxsin* “lady, mistress”, cf. Tzetzes *χσιβά* (Av. *xšōiθnī-*, fem, of *xšaētan-* “bright, radiant, splendid”; BENVENISTE 1959: 18–20, ABAEV 1989: 236);

PIr. **axšaina-* “dark-colored” → **axšainyakah > *axšinyagi > POss. *æxsijnæg > D æxsinæg, I æxsinæg* “wild dove, pigeon” (cf. n. 58);

PIr. **kainā* → **kainyā (?) > *kinya > POss. *kijnæ > D kijnæ* “reward, revenge” (alongside *kenæ?*; cf. ABAEV 1958: 596).

TESTEN (1997: 724–25) points out that D *ī* appears in environments where one would expect /ij/ on morphological or historical grounds: nouns and adjectives formed with the suffix *-yāka-, e.g., *adgīnag* “sweetness” to *adgin* “sweet” (cf. *bazajrag* “bazaar (adj.)” to *bazar* “bazaar”, *x^wærujnag* “food” to *x^warun* “eat”), or *fi* [I fynʒ] “nose” < *finj < POss. *find^y (cf. D. *insæj*, I *ssæz* “twenty” < POss. *insæd^y < PIr. *winsati). (Similarly, 1 *i* represents underlying tautosyllabic /yj/ in *adžīnag* ← *adžyn*; *xærinag* ← *xæryn*, *bydirag* “steppe (adj.)” ← *bydyr* “steppe”; cf. ABAEV 1964: 5, BAGAEV 1965: 37.) As far as the native vocabulary is concerned, then, D [ī] appears to be phonemically /ij/, and will henceforth be written *ij*.

²¹ Cf. ABAEV 1924: 154–55, 1964: 10–11, AXVLEDIANI 1963: 49–56, BAGAEV 1965: 62–68, ISAEV 1966: 26, THORDARSON 1989a: 466, TESTEN 1997: 728–29. For detailed discussion and examples of the various types of prosodic units in Iron, I refer the reader to ABAEV 1939.

²² First described in ABAEV 1924: 152–53; cf. AXVLEDIANI 1963: 49–51, ABAEV 1964: II, BAGAEV 1965: 57–60, THORDARSON 1989a: 466, TESTEN 1997: 727–28. This pattern may be represented metrically as an iamb constructed at the left edge of the phrase, with strong and weak vowels treated as long and short, respectively: hence either (\bar{v}) or (\check{v} \check{v}) (HAYES 1995: 261). Note that Iron Ossetic belongs to those languages in which coda consonants, including geminates, do not count for syllabic weight, and long (i.e., strong) vowels are permitted in closed syllables (HAYES 1995: 302–3).

²³ ABAEV (1924: 155, 1939: 97) provides a striking accentual minimal pair in which the constituent structure determines the grouping of words into prosodic units: *bæx né | qæwý | máx* “We need a horse”, lit. “horse 1pl.gen.clitic is-needed 1pl.gen.”, vs. *báx | næ qáewý | máx* “We don’t need a horse”, lit. “horse not is-needed 1 pl.gen.”.

²⁴ Interestingly, this system almost exactly matches Abaev’s (1924: 153–54) brief description of Digor stress: “[e]sli valentnogo glasnogo net ni v 1-m, ni vo 2-m sloge, no on est’ v kakom libo iz sledujuščix, digorskoe udarenie možet perejti zavetnyj dlja ironskogo rubež i upast’ na bližajšij ot vtorogo valentnyj slog, 3-j, 4-j i dalee”. However, Abaev does not specify the position of stress in words or accentual complexes containing only weak vowels, and the only example he gives is *fudæbón* “suffering”, with stress on the strong vowel in the third and final syllable.

²⁵ I omit the PIr. long diphthongs *āi, *āu, for which there are no clear examples in Ossetic.

²⁶ This development need not reflect the POss. placement of stress (contra THORDARSON 1990: 259–63), but rather appears to depend solely on the contrast of *aC]_σ and *aCC]_σ (the latter in practice only in word-final position) in pre-POss.: cf. D *γar(m)*, I *qarm* “warm” < POss. *γarm < *γærm vs. D *wærmæ*, I *wærm* “pit” < POss. *wærmæ (TESTEN 1997:721 n. 16). The more complicated formulations of BIELNIEIER (1977: 29–30) and THORDARSON (1989a: 459–60), which depend on morpheme boundaries, are unnecessary in the absence of secure examples of non-final PIr. *(-)aCC- > POss. *(-)aCC-; the only possible case I have found is D *arcæ*, I *arc* “spear”, if from POss. *arcæ < *arštyā (?) ← PIr. *ḡšti- (Av. *aršti-*, Ved. *ḡṣṭi-*;

ABAEV 1958: 60), but the *-æ* in Digor need not be old (cf. n. 32 [end]). The vocalism of Iron *wærm* and similar forms thus reveals the former presence of a word-final **-æ*, preserved in Digor. On grammatical alternations between *a* (*o* before nasal) and *æ* in plurals and compounds, cf. section 4.2 (9).

It is worth noting that at least some cases of pre-Sogdian **ī* have been shortened and/or are treated as light, e.g., *šīr-* “good” < **srīra-* (cf. Khot. *śśāra-*; SIMS-WILLIAMS 1984: 206), *žw-* “live”, *žwān* “life” < **jīwa-*, **jīwāna-* (SIMS-WILLIAMS 1982: 68, cf. section 2 above; cf. Av. *jūua-* vs. OP *jīva-*, HENNING 1942: 50), although the latter may be parallel to secondarily shortened **ā* before **y*, **w*, e.g., *sāyāk* “shade” < **sāyākā-* ← PIr. **sāyā-* (cf. Av. *a-saiia-* vs. *MPsāyag*, Ved. *chāyā*; GERSHEVITCH 1954: §124, SIMS-WILLIAMS 1984: 206).

²⁷ Here and below I assume that (pre-)POss. still possessed palato-alveolar **č*, **ž*, **ž'* for modern *c*, *z*, *z'*, as in early nineteenth-century South Ossetian dialects (preserved today after *n* and in geminates; ABAEV 1049: 496-97, THORDARSON 1989a: 463, 1989b; cf. FRITZ 1986: 251ff.). – BIELMEIER (1977: 13-14) reports that Aleksandr Bjazyrty, in an article in *Soveton Iryston* in 1968, reads the last three words as ΛΑΚΑΝΗ ΤΖΗΡΘΕ, so that the tomb would contain the grave of only one man, namely *Lagan*, rather than four men according to the interpretation given here.

²⁸ The other possibility is that the reflex of **-ah* had already fallen, but *-E* continued to be written by orthographic convention, parallel to the retention of silent word-final *Ъ* in Russian (until 1918) and Bulgarian (until 1945). Given the total lack of evidence for an established medieval Ossetian scribal tradition in the Greek or any other alphabet, it seems more likely that *-E* denotes a real vowel, either [i] or a reduced [ī] (cf. section 4.2 (2a), (8)).

²⁹ For syntactic objections to Bielmeier’s (1993: 16ff.) analysis of the second line, cf. TESTEN 1994: 315 n. 17.

³⁰ Cf. also *daban horz* in the 1422 word list from the Jász (Lat. *Jazōnēs*; cf. Ἰάζυρες, name of a Sarmatian tribe) in Hungary, who were speaking a language very similar to Ossetian as late as the fifteenth century; if their ancestors fled from the Mongol invasion of 1239 (along with the Turkic-speaking Cumans), as generally believed (NÉMETH 1959: 5–6 with refs.), the dialect of Alanic-Ossetian from which the language of the word list is descended had not yet undergone the change of **a* > **o* before nasal: cf. also *dan* “water” vs. Oss. *don* (NÉMETH 1959: 30–31). On the basis of Jász *kuraynu* “millstone” (D *kurojnæ*, I *k^wyroj*), GERSHEVITCH (1960: 595–96) proposes that **a* was also rounded before *yn*, metathesized from **ny*, but it seems more likely that the diphthongs of Jász and Ossetian are parallel developments of an earlier **kuran^ya* (cf. Av. *ainiu-* “other” < PIr. **anya-* or Gr. βαίνω “come” < **bany^e/o-* < **bamy^e/o-* < PIE **g^wm-y^e/o-* and see section 4.2 (4) on *i*-umlaut in pre-POss.), in which case **a* > **o* before any nasal: **n*, **m*, or **n^y*. – As BIELMEIER (1989a: 242) observes, “[d]iese junge lauthistorische Differenz ist somit das klarste zur Verfügung stehende Kriterium zur Trennung des Ossetischen bzw. Altossetischen vom Sarmatisch-Alanischen”.

³¹ The *-i* of κίτρις “bride, daughter-in-law” (D *kinzæ*, I *čynz* < POss. **kinzæ* < **kainiča* < **kanikā*; cf. section 4.2 (4)) need not denote a raised and fronted pronunciation of **æ* after

the palato-alveolar affricate *ʒ, but instead is probably to be identified with the *ezāfe* *-i preserved in D *mad-i zæronð*, I *mad-y zæronð* “old mother” (BIELMEIER 1993: 7, TESTEN 1994: 314–15; cf. section 4.2 (7)): hence *kinž-i mæ-sfili “bride of my *sfili*”.

Note that the placement of accent does not always conform to the predictions of section 3: cf. χσινῶ, κίντζι vs. D *æxsijnæ*, *kinžé*. Considering that Tzetzes is unlikely to have had complete command of twelfth-century Alanic-Ossetic, and that his purpose here is merely to give an approximate rendering of two lines of (earthy) conversation, it would be unwise to place undue weight on the evidence of these markings.

³² Preserved in the language of the Jász word list as *-a* (NÉMETH 1959: 28–29): *basa* “soup” (D *basæ*, I *has*), *sana* “wine” (D *sænæ*, I *sæn*) vs. *dan* “water” (D, I *don*; cf. n. 30), *bah* “horse” (D, I *bæx*), *fus* “sheep” (D *fus*, I *fys*). BAILEY (1957: 52) proposes that the distinction between pre-POss. *-i < *-ah (for which he compares Khot. *-ā*, *-i*; on the more immediate connection with pre-Sogd. *-i, cf. section 4.2 (2a)) and *-a < *-ā is reflected in nouns in D *u*, I *-y* < POss. *-u < *-wi < *-wah vs. D *-wæ*, I *-u* < POss. *-wæ < *-wa < *-wā, but most of his examples are of non-Iranian origin and/or obscure prehistory: cf. ABAEV 1958: 465 (D *fætk’u*, I *fætk’u* ‘y’ “apple”: “proisxoždenie ne izvestno”), 1979: 161–62 (D *st’alu*, I *st’aly* “star” < POss. **stalu* ← **stali* < **stārya*-?), 196–97 (D *sulu*, I *suly* “whey” ← Turkic), 1973: 267 68 (D *qar(w)æ*, I *qaru* “ability, energy” ← Turkic). D *zær(w)æ* [I *zær*] “old age” does however appear to continue *-wā, cf. Sogd. *zrwħ* (BAILEY 1945: 35). In any case, PIr. *-yah > *-yi > POss. *-i > D *-i*, I *-y* in D *x’ali*, I *xoly* “carcass, carrion” < **hwārya*- (to **hwar*- “eat”) and D *dæsni*, I *dæsny* “skilled, expert” < **dašinya*- (Av. *dašina*- “right, proper”; THORDARSON 1989a: 459).

The few Iron nominals ending in *-æ* are generally taken to reflect earlier *-aya-, e.g., D, I *zærdæ* “heart” < **zṛdaya*- (cf. Av. *zərədaēm*, Ved. *hṛdayam*; MILLER 1903: 32), D, I *arfæ* “thanks” < **āfraya*- (ABAEV 1958: 64, THORDARSON 1989a: 459). I *dyuuæ*, i.e., *dywæ* [D *duuæ*, i.e., *duwæ*] “two” < PIr. masc. nom./acc. **d(u)wā* may have retained its vowel in phrase-internal position (cf. French *six* [sis], *sept* [set], *huit* [ɥit], *dix* [dis], which did not undergo the late medieval loss of word-final *t*, *s*); for another possibility, see n. 48 (end). Note that so-called “secondary” D *-æ*, e.g., in *sædæ* “100” [I *sæd*], *arçæ* “spear” [I *arc*] (BIELMEIER 1977: 45), does not appear to be a regular phonological development: contra Fortunatov (cited in MILLER 1903: 16), the *-æ* of *sædæ* probably does not continue PIr. *-ām.

³³ Umlaut of vowels by a following *i or *y has been well documented; cf. GERSHEVITCH 1954: §§181–201, 432–34, SIMS-WILLIAMS 1989b: 180–81. For *u*-umlaut, cf. CSogd. spellings of thematized (*a*- and *ā*-stem) forms of Olr. *u*-stem nouns: nom. *mwy-y*, acc. *mwy-w* (muy-í, ú) “magus”, masc. nom. *žwy-y*, fem. nom./acc. *žwy-* [žuy-í. -á] “harsh, cruel” (SIMS-WILLIAMS 1985: 197–98; cf. gen. *wd-y*’ [wuð-yá] “wife” for *wwdy**). The consistent spelling of these stems with *w* points to *u*-like vocalism, which must have resulted from *u*-umlaut in, e.g., **mayu*- > **muy*- or **moy*- (classified as “metathesis” by GERSHEVITCH 1954: §406ff., who however notes that “one may consider the cases of ... regressive metathesis as examples of *u* (*w*) producing umlaut before dropping, similar to those where *y* was lost after palatalizing pre-ceding vowels” [§4061]). The absence of *w* in older *u*-stem forms such as nom. *myw* (alongside *mwyw*),

masc. acc. *žyw* may mean that this *u*-coloring or umlaut was automatic (i.e., phonologically predictable) before a following **u*; cf. the non-indication of *i*-umlaut in Old High German, e.g., *furi* (modern *für* “for”) or preterite subjunctives such as 1, 3sg. *nâmi*, *fuori* (modern *nâhme*, *führe* to *nehmen* “take”, *fahren* “go, travel”; BRAUNE and EGGERS 1975: 54–55). – Note that diphthongization of **a* > **au* > **ō* by a following **w*, in contrast to umlaut by **u*, must have preceded the Rhythmic Law: cf. the heavy stems *twx* [tōx] “swift” < **taux-* < **taxw-*, *zwb* [žōf] “jaws” < **zauf-* < **zafw-* (SIMS-WILLIAMS 1984: 209, 1985: 115 with refs.), for which one may of course compare Avestan spellings such as *hauruua-* “whole” < **harwā-*, GA*v.* *paouruiia-* “first” < **parwiya-* (HOFFMANN and FORSSMAN 1996: 51–52).

The pre-Sogd. syncope of unstressed vowels *prior* to the Rhythmic Law (SIMS-WILLIAMS 1989b: 181) may have had parallels in pre-POss., although I know of now definitive evidence. The syncope in D, I *ærzæ* “large number, myriad” < **azra-* < P*Ir.* **hazahra-* “1000” (A*v.* *hazaŋəm*) and D *xæfsæ*, I *xæfs* “frog” < **kašpa* < P*Ir.* **kasyapa-* (A*v.* *kasyapa-* “tortoise”), which ABAEV (1958: 187, 1989: 162–63) takes to reflect initial-stressed **háhra-*, **kásiiapa-*, could also result from **hazahrá-*, **kasyapá-*, with final stress by the Rhythmic Law. On the other hand, the divergent development of **abi-* in the verb **abi-θanj-* > **aiβi-* > **ev-* > POss. **evtinžun* > D *ievtinžun*, I *ivtynžyn* “harness, load” (ABAEV 1958: 556, BIELMEIER 1981: 29) vs. nominal **abi-šaiθnī-* > **aβi-* > **æv-* > POss. **æfsijnæ* > D *æfsijnæ*, I *æfsin* “landlady, mother-in-law” (cf. n. 20) might in some way reflect the earlier, inherited placement of stress. Cf. Sogd. B *zr'ync*, M, C *zrync* [zrinč] “save, deliver” < **uz-rínčaya-* with aphaeresis vs. B *wzγ'm* [uzγám] “absolutely” < **úz-gāmam* with initial vowel preserved, or B *prβ'yr*, M *prβyr*, C *prbyr* [parβér] “explain” < **pari-bāraya-* vs. B *pyrδnn* [perδán] “saddle” < **pári-dāna-*, with palatalization in each case of the originally stressed vowel (SIMS-WILLIAMS 1989b: 181, also comparing Manichaean MP proverb 'b- [(ə)b-] < **upa-* vs. 'wbd'r [ubdār] “crucified” < **úpa-dāru-*).

³⁴ Cf. also SIMS-WILLIAMS 1979: 345. Similarly, **b* < P*Ir.* **p* has been preserved word-initially in the preverb *ba-* (= German “hinein-”, e.g., D *ba-caeun*, I *ba-caeun* “go in, hineingehen”; cf. also D *bad-un*, I *bad-yn* “be sitting, staying” < **upa-had-*; MILLER 1903: 82, THORDARSON 1981: 258 with refs.) and the Digor adess. suffix *-bael* [I *-yl*, *a-uyl*] < **upari* (originally a postposition, later univerted), whereas elsewhere it has become the fricative *v*, e.g., in D *ærvadae*, I *ærvad* “relative, brother” < **brātā*, D *æxsævae*, I *æxsæv* “night” < **xšapā* (MILLER 1903: 33–34, THORDARSON 1989a: 464).

³⁵ At least as a productive rule, or a surface constraint against intervocalic voiceless stops and affricates. As David Testen reminds me, the initial consonant (excluding sibilants) of the second member of a nominal compound is regularly voiced, resulting in alternations of *f* ~ *v*, *t* ~ *d*, *c* ~ *z*, *k* ~ *g* (*x* ~ *γ*): cf. D, I *ræst-vændag* “whose way is straight” ← *rast* “straight” + *fændag* “way, path” (cf. section 4.2 (9) on weakening of *a* to *æ*), D, I *æ-das* “safe” ← *æ-* “not” + *tas* “danger”, I *æm-zæryn* “roommate” ← *æm-* “with” + *cæryn* “live”, D, I *bæx-zarm* “horse-hide” ← *bæx* “horse” + *carm* “skin, hide”, D *xu-gæs*, I *x^wy-gæs* “swineherd” ← D *xu*, I *x^wy* “pig, swine” + *kæs-* “look, watch”, D *sæ-γæccæ* “with them” ← *sæ* “them” + postpos. *xæccæ* “with”

(AXVLEDIANI 1963: 123, ABAEV 1964: 8, 119, BAGAEV 1965: 49–50. THORDARSON 1989a: 464, 467, TESTEN 1997: 709–11). This voicing dates back to pre-POss., when the affected consonant was intervocalic (before syncope of the connecting vowel *-a-; cf. section 4.2 (6)). It remains largely, although not entirely, productive in the contemporary language: for exceptions, cf. AXVLEDIANI 1963: 123, BAGAEV 1965: 50.

Note that Sogdian, which shares this plural suffix with Ossetic, does not exhibit voicing of intervocalic and post vocalic *p*, *t*, *č*, *k* until the latest texts, e.g., 'b [āb] “water” in the manuscript C14 vs. B, M 'p, C 'p [āp] (SIMS-WILLIAMS 1989b: 178–79).

³⁶ Or to a thematized preform in sg. *-arah, e.g., *pitarah > *fidari? But this is highly unlikely, given the survival of the old *r*-stem nom. sg. down into modern Ossetic: cf. immediately below. For another possibility, see n. 40. – The origin of geminate *dd* in Digor is unclear to me: perhaps *fiddæltæ* ← *fidælttæ, etc. by metathesis?

³⁷ Synchronically, these nouns may be analyzed as taking the pl. suffix *-æltæ*. This extended suffix is optionally found in D *nostæ* “daughter-in-law”, D *uosæ*, I *us* “wife”, i.e., *nostæltæ*, *uostæltæ/ustæltæ* (alongside *nostitæ*, *uostitæ/ustytæ*, MILLER 1903: 41). In certain Digor dialects, particularly those spoken across the border in Kabardino-Balkaria, other nouns may also form their plurals in this manner (e.g., *zurd* “word”, pl. *zurddæltæ* or *zurddtitæ*, AXVLEDIANI 1963: 83, BAGAEV 1965: 135, ISAEV 1966: 36); not surprisingly, all the examples cited by these scholars are to stems ending in a dental consonant, like the original models “father”, “mother”, and “brother”.

BIELMEIER'S (1982: 58–60, 66) claim that D *fidæ*, I *fyd* reflects PIr. *pitā, whereas the residual Iron voc. *fydæl*, attested in nineteenth-century translations of the Bible, goes back to a remade *o*-stem nom. *pitar-i < *pitar-ah, contradicts what one would expect by Kuryłowicz's fourth law of analogy. Amazingly, I *fydæl* appears to be a survival of PIr. voc. *pitar. with *-l* by analogy to pl. *fidali – if it is not merely obl. *fidal(-i) ← *pitar- itself, which has been replaced in other functions by *fid-i > D *fid-i*, I *fyd-y*, with the nom. stem *fid- (cf. MP *brād* < *brātā vs. obl. *brādar*, SIMS-WILLIAMS 1981a: 166–70, SKJÆRVØ 1983: 176–77, SUNDERMANN 1989: 155). For a similar case, cf. Manichaean MP *pyd* “father!”, *pydr-wm* “my father!” < *pitar, *pitar-mai (SIMS-WILLIAMS 1981a: 170). As for D, I *madæl* “female”, D *ærvadæl* “relative”, formally they could continue the old obl. or have been backformed to the plural (so ABAEV 1973: 63 s.v. *madæl*), but their semantics point rather to derived adjectives in *-ya-: *mātar-ya-, *brātar-ya- > POss. *madæl, *ærvadæl (BIELMEIER 1982: 66; cf. *næl* “male” < *nar-ya-).

³⁸ The various Iranian names in Greek inscriptions from the north coast of the Black Sea (MILLER 1903: 5–7, ZGUSTA 1955: 59–172; for additional refs. cf. BIELMEIER 1989a) are of no help in fixing an absolute chronology for this change, since they have almost certainly been influenced by the morphology of Greek: hence the high proportion of forms ending in -OΣ and -HΣ. Moreover, one finds masculine names in -AΣ, -EΙΣ, -HΣ, -OΣ, and -OYΣ, in no apparent relation to the various OIr. stem classes: cf. Φιδας, Πιδος, Πιδεις for *pidā, *fidā “father” or Πιδανος, Φιδανους for *a*-stem *pidāna-, *fidāna- (ZGUSTA 1955: 161–63, BIELMEIER 1989a:

242; the latter names contain the patronymic/ethnic suffix *-āna-, Oss. *-on* [← gen. pl. *-ānām? cf. nn. 6, 15]).

If *-ah did become pre-POss. *-i, it is worth considering the possibility that the ancient tribal names *Μασσαγέ-ται* and *Σαρμά-ται* were collective plurals in *-tā (represented in Greek as *-ται*: MILLER 1903: 42) to masc. *Masag-i and fem. *Sarm-a (or sim.), respectively. – Note that Iranian *a*-stem nouns in *-rah > *-ri, which should have given Oss. *-l*, have apparently restored *r from other case forms.

³⁹ The connecting *-u- in I *mæsg^wytæ* < *mæsgutæ probably results from assimilation of *i to the suffixal vowel, rather than metathesis (cf. TESTEN 1997: 702); *mæslugi-tæ > *mæslugutæ > POss. *mæsg-u-tæ, parallel to *kosægi-tæ > POss. *kosg-i-tæ. Digor has extended this *u to the pl. of all nouns in *-æg*, *-ug*, hence *kosgutæ* for expected “*kosgitæ*” corresponding to I *kus žytæ*.

Preterite participles in *-Cd* form their plurals by simply suffixing *-tæ* or with gemination + D *-itæ*, I *-ytæ*, e.g., *mard* “dead”, pl. *mærdtæ* or D *mardtītæ*, I *mærdtytæ* (ABAEV 1964: 15, BAGAEV 1965: 195, ISAEV 1966: 35). Certain loanwords from Russian into literary Ossetic may also take plurals in *-ytæ* with palatalization of a stem-final velar, e.g., *uročytæ* to *urok* “lesson” (TESTEN 1997: 720 n. 15).

⁴⁰ I cautiously suggest that the suffixation of *-tā to the nom. sg. – or, if *ākā-stem pl. *-ēt* continues *-āk-i-tā, generalized masc. *-i < *-ah – was not confined to contracted stems alone, but also applied to *a*- and *ā*-stems. e.g., nom. pl. *ram-i-tā, *māiθ-i-tā, *wan-i-tā, *jiwān-i-tā. Because this vowel was always unstressed (being neither long nor in a final syllable), it was lost by syncope, producing the forms *ram-tá*, *mēθ-t*, *wan-tá*, *žwān-t* in section 2 above; only in *aka- and *ākā-stems did *-i- indirectly survive in the pl., through loss of *k and contraction of *-āi- > *-ē*-. – The generalization of “linking” *-i- may have been a common innovation of Sogdian and Ossetic, but could easily have occurred independently in the two languages.

In connection with the PIr. *r*-stems discussed at the beginning of this heading, note that POss. *fidæltæ “fathers” < *fidal-i-ta < *fidar-i-tā could have replaced earlier *fidar-tā, with *-tā suffixed to the obl. stem *fidar; sim. for *madæltæ, *ærvadæltæ. The syncopated *-i- in these pls. may thus either be the generalized “linking vowel” (< PIr. *o*-stem nom. sg. *-ah) or continue consonant-stem nom. pl. *-ah, as argued above; cf. BIELMEIER (1982: 65, 66), who however assumes that archaic I voc. *fydæl* < thematized *pitar-ah, on which see n. 37. Thanks to Nicholas Sims-Williams for bringing this point to my attention.

⁴¹ MILLER (1903: 71–72) and GERSHEVITCH (1998: 146–47) derive the opt. endings from thematic *-ai-ša, *-ai-ta and athematic *-ī-ša, *-ī-ta, respectively; both assume “long *ī*” as the Digor stem vowel, but this cannot continue either PIr. *-ai- (> D *e*) or *-ī- (> D *i*). According to ISAEV (1954: 230), the opt. stem vowels in the two dialects are “normal” D *i* and I *i*, hence do not correspond etymologically. Taken in isolation, D *i* could continue athem. * *-ī-*, which merges with *-i- as POss. *i > D *i*, I *y* (cf. D *æxsir*, I *æxsyr* “milk” < PIr. *xšīra-. Skt. *kṣīra-*; MILLER 1903: 18, THORDARSON 1989a: 460, contra GERSHEVITCH 1998: 157 n. 21), whereas I *i* could be from POss. * *-e-* < PIr. them. *-ai-

but this would presuppose the survival of both athematic and thematic inflection into POSS., which seems extremely unlikely.

Word-final *ā and *ā also merged in other Old and Middle Iranian languages, including Avestan (GAv, -ā, YAv. -a [-ā in monosyllables]; HOFFMANN and FORSSMAN 1996: 54), Old and Middle Persian (as *-ā: cf. OP *manā* <m-n-a> “of me” < *mana vs. *mana-cā* <m-n-c-a> “and of me” < *mana-ča [KENT 1950: 17, 47, HOFFMANN 1976: 633 35, contra GERSHEVITCH 1988], Manichaean MP *gw'm* “tell me!” < *gaubā-mai < iptv. 2sg. *gauba [SIMS-WILLIAMS 1981a: 174]), Sogdian (light-stem masc. voc. sg. -' [-a] < *-a like fem. nom. sg. -' [-a] < *-ā, cf. section 2, n. 15; also iptv. 2sg. -' [-a] < *-a, impf. mid. 3sg. -t' [-ta] < mp. *-ta, e.g., *wn-'*, *wn-t'* to *wn-* “do, perform”), and Khotanese (voc. sg. *balys-a* “O Buddha!” < *-a, nom. sg. *kanth-a* “city” < *-ā; cf. iptv. 2sg. -a < *-a, injunctive act./ mid. 3sg. -ta < mp. *-ta: EMMERICK 1968: 211, 254, 271), but apparently not in the forerunners of the Pamir languages: cf. MORGENSTIERNE 1973a. Ossetic has preserved the distinction in monosyllables: cf. negative *næ* < *na vs. prohibitive *ma* < *mā (Ved. *ná, mṛ*; THORDARSON 1990: 258). – In the numerals *avd* “seven” < PIr. *hafta and *dæs* “ten” < PIr. *dasa. *-a could have been syncopated phrase-internally (cf. n. 32 on I *dyuuæ*); this would have to have been earlier than the lowering of *æ > *a / __CC]σ (or lengthening of *a > *ā) in *avd*, cf. section 4.2 (9).

⁴² Thus *Ir* “Ossete” and *Iron* “Ossetic” cannot continue *arya- “Aryan”, *aryāna- (← gen. pl. *aryānām “of the Aryans”; cf. nn. 6, 15), as long believed (cf. MILLER 1903: 17 [§ 4.2], BAILEY 1959: 97 98), ABAEV (1949: 246. 1958: 546) connects *Ir* with various ethnic and place names in neighboring Caucasian languages, but also possible is Bielmeier’s derivation from PIr. *wīra- “man” (Av. *vīra-*, Ved. *vīrá-*; KNOBLOCH 1991: 35), which would have given POSS. *ir (nn. 38 [end]. 41; for loss of *w before *ī, cf. D *insæj* [I ssæj] “twenty” < POSS. *insædʷ < PIr. *winsati) > *jyr (*[jir]) > I *ir*; this would account for the accentuation of *Irón*, underlyingly /jyron/ (with initial *I-* preserved after *Ir*; on the regular loss of POSS. *i- in *Iron*, e.g., in “twenty”, cf. section 4.2, (7) and see AXVLEDIANI 1963: 14-15 for examples).

⁴³ Following earlier scholars, I assume diphthongization or “epenthesis”, followed by monophthongization of *ai, *au > POSS. *e, *o. The exact phonetic details of umlaut in pre-POSS. are of course beyond recovery.

⁴⁴ Of the examples cited here, “bride”, “elbow”, and “gold” were affected by the change of *ai > *i before *(θ)n (MILLER 1903: 18. ABAEV 1958: 498, TESTEN 1996: 370). Cf. the following cases involving PIr. *ai, i.e., *ai which has not arisen by umlaut:

PIr. *faina- → *fainaka- > POSS. *fink > D *finkæ* (with secondary -æ?), I *fynk* “foam” (cf. Ved. *phéna-*, Pers. *fin* “snot”, *finak* “sea foam, spume”; why no voicing of intervocalic *k?);

PIr. *wain- > POSS. *win- > D *win-un*, I *wyn-yn* “see” (cf. GAv. pres. 2sg. *vaēnahī* “you look at”);

PIr. *saina- → *sainaka- > POSS. *sinæg > D *sinæg*, I *synæg* “bosom, lap” (Av. *saēni-* “top, peak”);

PIr. *-aina- (suffix forming adjectives of material) > POss. *-in > D -in, I -yn, e.g., D *Ƴæd-in*. I *qæd-yn* “wooden” to D *Ƴædæ*, I *qæd* “wood”, D *dor-un*, I *dur-yn* to D *dor*, I *dur* “stone, brick, clay” (Av. -*aēna-*, OP -*aina-*, Pers. -*īn*, e.g. in Av. *ərəzat-aēna-* to *ərəzat-əm* “silver”, OP *aθang-aina-* to *aθanga-* “stone”, Pers. *sang-īn* to *sang* id.);

PIr. clitic pron. sg. 1 *mai, 2 *tai → *mai-n, *dai-n (with voicing of *t in unstressed position and dat. ending *-n) > POss. clitic dat. *min, *din > D *min*, *din*, I *myn*, *dyn* (TESTEN 1996: 370).

(On the development of *-ainy- > *-iny- > POss. *-ijn- in “elbow” and “gold”, cf. n. 20.) Similarly, *au > *u before *n, e.g., PIr. *gauna- > POss. *Ƴun > D *Ƴun*, I *q^wyn* “wool, hair”, PIr. *srauni → *sraunyā > POss. *sujnæ > D *sujnæ*, I *sin* “thigh”, and (with [*-afn- >] * aβn- > *-aun-) PIr. *kaβna- → *kaβnaka- > POss. *kunæg > D *kunæg*, I *k^wynæg* “small in quantity or amount”, PIr. *hwafna- → *fafna- > POss. *fun > D *fun*, I *fyn* “sleep, dream”, PIr. *rafna- > POss. *run > D *run*, I *run* “sickness, epidemic”, OIr. *tafnā > POss. *tunæ > D *tunæ*, I *tyn* “cloth, length of cloth worn by a Cherkess woman” (cf. ABAEV 1973: 444–45, 1979: 110 and s.vv., THORDARSON 1989a: 460). Although direct evidence is lacking, it is more likely that *ai, *au were first monophthongized to *e, *o, then raised to *i, *u before *n, rather than that *ai, *au directly became *i, *u before *n and *e, *o elsewhere.

In addition, *a before nasal + consonant may give POss. *i, although the exact conditioning remains unclear: cf. *pančadasa > POss. *finttæs > D *finttæs*, I *fynttæs* “fifteen” (but D. I *fonz* “five” < *panča, I *fenzæm* “fifth” < *pančama-); *wi-θanj- > POss. *itinzun > D *itinzun*, I *ty[ɲ]zyn* “stretch” (cf. MILLER 1903: 18. BAILEY 1945: 5. THORDARSON 1989a: 460).

⁴⁵ TESTEN (1994: 300ff.) argues that this and a number of other Oss. nouns derive from the feminine and diminutive/pejorative suffix *-içā < *-ikā (with palatalization of *k by preceding *i; cf. OCS *otiči* “father” < *atikas), as do Sogdian and Khwarezmian feminities in -c(?): cf. GERSHEVITCH 1954: §§ 247 n. 4 (citing Henning), TEDESCO 1954: 487–88. In favor of *-içā, rather than the *-ačī proposed by MORGENSTIERNE (1962: 161–64; cf. BENVENISTE 1929: 84 [-č < *-ki, with -h as an orthographic “indice . . . superflue”], SIMS-WILLIAMS 1981b: 15. 1989b: 185, 190 [*-ačī + *-ā], THORDARSON 1989a: 464 [D *(ængulzæ*, I *æng^wylz* “finger” < *angurčī]), note that Skt. diminutives in -(a)ka- usually form their feminines in -ikā-: RV *iyatt-ikā-* “so small” (masc. *iyatt-akā-*), *śīt-ikā-* “cool” (to *śītā-* “cold”), AV *kumār-ikā-* “little girl” (MACDONELL 1910: 137 n. 2, WHITNEY 1924: §§1181c, I222i, DEBRUNNER 1954: 145, 316–17: for the shift to “contemptuous” value, cf. RV *āla-kam* “in vain” to *āram*, AV *ālam* “appropriate, adequate”, WHITNEY 1924: 198 [§521]). To be sure, one also finds -akā- and -akī-, especially in the older language (DEBRUNNER 1954: 317), whereas -ikā- steadily becomes more common, finally prevailing in classical Sanskrit; note that *iyatt-ikā-* and *śīt-ikā-* are the only such examples in the RV, and cf. RENOU (1952: 183): “Un -ikā- contre-partie de m. -(a)ka- ne commence véritablement qu’avec l’A(tharva-)S(am [ī]ā), et de manière fort limitée”. Yet direct evidence for an Indo-Aryan or Iranian suffix *-akī- is meager: the two Indo-Iranian branches appear to have carried out independent but parallel grammaticalizations of *-ikā- as

the fem. suffix corresponding to *-aka-, processes which were largely complete by the Middle Indo-Aryan and Middle Iranian periods, respectively.

Early Ossetic, then, probably formed feminines in *-ičā- to adjectives in masc. *-aka-. Such a well-characterized suffix could easily have spread beyond its original locus, e.g., to the pret. ptcp. in *-ta-ka- ← PIr. *-ta-: cf. Sogdian M 'k_{tc}' [əktčā], C q_c' [k(ə)čā] < *k_{rt}-ičā, fem. to M 'k_{tyy} [əktē], C q_{ty} [k(ə)tē] < *k_{rt}-aka- ← *k_{rt}a-ka- "done, performed" (GERSHEVITCH 1954: §§1271–73, 1043–48), and modern East Iranian forms such as Shughnī vic, čīwc < *būt-ičā, *k_{rt}-ičā (or *-ačī? so MORGENSTIERNE 1962: 162), fem. to vuđj "been", čūŷj "done" < *būt-aka-, *k_{rt}-aka-. As TESTEN (1994: 303) observes,

[O]nce the Old Iranian feminine markers such [as] *-ā, *-ī, etc., disappeared, the new suffix *-č- would have survived as virtually the sole marker which was unambiguously feminine. Adding the *-k- suffix to a substantive thus provided a means for maintaining earlier oppositions, reflected now not in the nature of the vowel but in the nature (palatalized vs. non-palatalized) of the consonant. Under the circumstances, it would not be surprising to find that the palatalized suffix came to be used even in places in which it was not etymologically justified (i.e., where it was not originally preceded by a palatalizing *i).

On Oss. nouns in D -ingæ, I -yng and D -inzæ, I -ynz, at least the latter of which may continue preforms in *-ain-ičā or *-in-ičā, cf. TESTEN 1994: 305–6.

⁴⁶ ABAEV (1958: 476) notes that *fans/fasm* is superior in quality to *festæ/fist* ("bolee vysokogo kačestva, čem *fist*"), the latter thus attests to a pejorative or affectionate meaning for the suffix *-ičā. I cannot account for the lack of umlaut in the entirely parallel *čaš(m)-ikā > *čaš(m)iča > čašča > POss. *čæstæ < D *cæstæ*, I *cæst* "eye" (cf. PIr. *čašman- [Av. *čašman-*, Pers. *čašm*] > POss. *čašm > D *cans*, I *casm* "loop, stitch (of thread), noose, window opening"; TESTEN 1994:305).

⁴⁷ To be distinguished from the synchronically productive morphophonological process in modern Ossetic by which *VRy > VjR. *Ty > TT before certain suffixes which historically began with *y, particularly -ag < *-yāka-: cf. I *dojnag* "river (adj.)" ← *don* "river", *uyryssag* "Russian (adj.)" ← *uyrys* "Russian(s)" (WEBER 1991: 307–8: cf. MILLER 1903: 21 [§12.5], 89, AXVLEDIANI 1963: 115, ABAEV 1964: 9, 85–86, 98–99, BAGAEV 1965: 26–27 [exx. 163–65, 196–97], ISAEV 1966: 23 [exx. 94]). As Weber notes, these sound changes must be relatively recent: cf. old *θy > c(c) in I *dyccæg* "Tuesday" [D *Geuærgi-bon*. lit. "George's day"] < *dwiθya-ka-, D *ærticcæg*, I *ærtycæg* "Wednesday" < *θriθya-ka- (also *æcæg* "true, truly" < PIr. *haθ-ya- to *hant-, pres. ptcp. of *ah- "be" [MILLER 1903: 38, THORDARSON 1989a: 463], and deverbal nouns in -ccag < *-θyāka-) vs. D *dukkag*, I *dykkag* "second", D *ærtikkag*, I *ærtykkag* "third". Similarly, old *ry > l(l), e.g., in *aryāna- > *allon*, vs. *bazajrag* "bazaar (adj.)" to *bazar*: cf. section 4.2 (3). The contrast between older *θy > c(c), *ry > l(l) and productive *Ty > TT. *VRy > VjR finds a close parallel in the Attic-Ionic dialects of ancient Greek, where PGr. *-ty-, *-t^hy- > -σ(σ)- survives only in unanalyzable forms, e.g., PGr. *mēt^hynos > Hom. μέσ(σ)ος, Att.-Ion. μέσος "middle", whereas clusters of *t+y. *t^h+y in which *y begins a sepa-

rate morpheme undergo a subsequent change, e.g., PGr. *mélit-ya (to μέλι, gen. μέλιτος “honey”, with fem. suffix *-ya) > Att. μέλιττα, Ion. μέλισσα “bee”; cf. LEJEUNE 1972: 103ff. – The lack of umlaut or “epenthesis” in *æcæg* demonstrates that the loss of yod in old *θy, as in *ry, preceded *a > *ai / __Cy in section 4.2 (4).

TESTEN (1997: 729–30 n. 27) argues that D *ijnnæ*, I *innæ* “other”, specifically “second in a series”, is actually a contraction of *i annæ, its meaning having developed from “the other/second”. By the above sound laws, however. PIr. *anyah should have given *ainyi > *inyi > POss. *ijni > D “*ijn*”, I “in”, which leaves unexplained both the geminate nasal and final -æ of *ijnnæ/innæ* (to say nothing of *annæ*, cf. ABAEV 1958: 545. who derives both from *anya-).

⁴⁸ Cf. MILLER 1903: 19. THORDARSON 1989a: 460. This process has evidently gone further in D than I: cf. *pašnuka- > POss. *fænuκ > I *fænyk* vs. D *funuk* “ash”, *mar(w)ičuka- > POss. “mælžug > I *mælžyg* vs. D *mulžug* “ant” (BIELMEIER 1977:44; for the latter cf. BENVENISTE 1959; TESTEN 1994: 301). Other examples of *a > *u next to labial include D *dumun*, I *dymyn* “blow” < *dam-, D *cumun*, I *cymyn* “sip, drink” < *čam- (ABAEV 1958: 322 s.v. *cyp-par*; on the origin of the infinitive suffix *-un, cf. BAILEY 1945: 29–30. BENVENISTE 1959: 104–5).

I have not been able to find any incontestable examples of umlaut of *a by a following *w. THORDARSON (1989a. 461) derives D *bor*, I *bur* “yellow” from a preform *barwa- (cf. Av. *baoiriia-* “solid (food)”, *baouruua-* “chewing” < *barwiya-, *barwa-?? BARTHOLOMAE 1904: 946–47), but the etymology of this word is complicated by the existence of similar-sounding color terms in other Iranian and Eurasian languages (e.g., Pers. *būr*, *bōr* “brown, reddish”, Russ. *búryj* “brown”; ABAEV 1958: 271). If TESTEN’S (1994: 309–10) analysis of D *uosæ*, I *us* “married woman, wife” is correct, POss. *wosæ could continue *wotsa < *wodča < *waduča < *wadū-čā, with *-čā merely suffixed to the old nom., rather than *wadw-ičā or the like; in that case, the raising of (*au >) *o > *u seen in *fus/fys*, *mud/ myd*, etc. occurred next to labial *obstruents* only.

The rounding of *a in D *cuppar*, I *cyppar* “four” < POss. *čuppar < *čaθwār could be conditioned by the special development of *θw > *pp (cf. Yiddish *epes* vs. German *etwas* “something”). I posit PIr. neut. *čaθwār (thematized in Av. *catura*; cf. Ved. *catvār-i*) < PIE coll. *k^wetwōr (< pre-PIE *k^wetwór-h₂) as the source of the Oss. forms, rather than non-neut. *čaθwārah < PIE *k^wetwóres, which should have given *-ri > *-li > POss. *-l > D, I -l. (Note that the Oss. forms for “two” and “three”, although traditionally derived from PIr. masc. *d(u)wā and masc./fem. *θrayah [MILLER 1903: 40, 47–48, ABAEV 1973: 425 s.v. ^{er}rtæ, THORDARSON 1989a: 459, 464], could reflect fem./neut. *d(u)wai and neut. *θrī [→ *θrī+ā > *θriyā > *tra > POss. *ærtæ, without palatalization?? or rather → *θrai, with the ending of “2”?]; cf. the Bulgarian use of neuter *ednó* “1”, *dve* “2”. For *-ai > POss. *-æ in monosyllables, cf. n. 10.)

⁴⁹ TESTEN’S suggestion (1994: 406–9) that D *æfsijnæ*, I *æfsin* “landlady, mother-in-law” goes back to *fšum-ikā (Av. *fšūmant-*, Skt. *kṣu-mant-* < PInIr. *pću- < P1F. zero-grade *pk □, cf. Gr. *Κύ-κλωψ* “Cyclops” ← *pku-klop-, originally “cattle-thief”), i.e., *fšum-ikā > *fšimiča

> *fšinča > *fšinja > POss. *(æ)fsijnæ, is unlikely, both because the change of *č > *j is not attested in any of the other *-ičā formations just listed and because, as Testen admits, one would have to assume a survival of both *fšu-mant- and *paću-mant- (> D *fusum*, I *fysym* “host”, see above) into pre-Ossetic. – I cannot account for the absence of umlaut in *anguričā > POss. *ængulžæ > D *ængulžæ*, I *æng^uylž* “finger” (BENVENISTE 1959: 32, TESTEN 1994: 301).

⁵⁰ The relative chronology of umlaut and (2a) is indeterminate: even if *-ah > *-i came first, any umlaut effects of word-final *-i on the preceding stem vowel could easily have been undone by analogy to paradigmatically related forms, e.g., those of other cases.

⁵¹ The corresponding sg. forms, of course, have not undergone syncope: in addition to the examples in (2a), cf. *madyakah > *maidagi > POss. *medæg > D *medæg*, I *midæg* “with-in”, *nawakah > *nawagi > POss. *næwæg > D *næwæg*. I *nog* “new”. For a possible explanation, cf. n. 55.

⁵² The *t* of the pl. ending is geminated after stems ending in a sonorant, but only when *a*, *o* is “weakened” to *æ* (MILLER 1903: 39 [§45.2, 3]). AXVLEDIANI 1963: 82, ABAEV 1964: 9, 16, BAGAEV 1965: 27, 130–31, 192, ISAEV 1966: 23, 34–35, THORDARSON 1989a: 469, TESTEN 1997: 714; contrast I *bon-tæ* “days” below). Similarly, the preterite marker *d* is geminated after a sonorant, e.g., *kaldton* “I spilled” to pret. ptcp. *kald* (MILLER 1903: 39 [§45.7]), ABAEV 1964: 9, 52, 54–55, BAGAEV 1965: 303, ISAEV 1966: 23, TESTEN 1997: 714–15). Phonologically, the dental may be viewed as amphisyllabic, its features spread across the syllable boundary: hence [æm.bælt.tæ], [kalt.ton]. In Iron, plurals and preterites to stems in final *n* have lost the nasal, e.g., *dættæ* “rivers” vs. D *dænttæ* (see below).

⁵³ Cf. AXVLEDIANI 1963: 82, 115, 123, ABAEV 1964: 5, 16, 98, 119, BAGAEV 1965: 35, 130ff., 192, 208–9, ISAEV 1966: 18–19, 34–35, THORDARSON 1989a: 460, 467, 469, 1990: 260–63, TESTEN 1997: 725.

⁵⁴ Deverbal nouns in *-c* < *-ti-, e.g., D *bærcæ*, I *bærc* “measure” to D *barun*, I *baryn* “measure” or D *zæjcæ*, I *zæjc* “posterity” to D *zajun*, I *zajyn* “bear, give birth to” (THORDARSON 1990: 263; cf. ABAEV 1949: 572–73, 1958: 252, 1989: 294), probably do not belong here: the nouns continue POss. *æ < PIr. *a (< PIE *e in the strong stem of an *i*-stem proterokinetic paradigm, e.g., *b^hér-ti- ~ *b^hṛ-téy-), whereas *bar-* has apparently generalized *a* from the pret. stem *barst* (for expected *bard < PIr. *bṛ-ta-; ABAEV 1958: 238) or from other transitive verbs in *a* (< PIr. *ā < PIE *o, originally proper to causatives, e.g., D (*ra-*)*marun*, I (*a-*)*maryn* “kill” < PIr. *mār-aya- [cf. Ved. *mār-áyati*] vs. D *mælnun*, I *mælyn* “die” < PIr. *mṛ-ya- [Av. (*fra-*)*miriiete*, OP impf. *am(a)riyatā*, Pers. *mīr-*; cf. Ved. *mriyáte*]), and *zaj-* continues PIr. pass. *zāya- “be born” < (post-)PIE *ǵnh₁-y^é/o- (Av. *zaiia-*, Ved. *jáyate*). Cf. also I *ærz-æj* “by nature” to *ar-yn* “find, give birth” (ABAEV 1958: 174).

⁵⁵ Note also I *caerd-æg* “agile”, originally derived from *card* “living”, pret. ptcp. of *caer-yn* “live” (cf. THORDARSON 1990: 263: *-æg* “[a]s a rule ... does not cause vowel shift in the preceding syllable”). For another paradigmatically dissociated relic form. cf. *tayd* “rapid” < *tayda- < PIr. *tax-ta-, with old East Iranian voicing of *-xt- (SIMS-WILLIAMS 1989a: 167–68;

cf. PIr. *hafta > Oss. *avd* “seven”), vs. *taxt*, productive pret. ptcp. of *tæx-yn* “fly” (THORDARSON 1989a: 465).

Note that the origin of the *a* ~ *æ* alternation would be simplified somewhat if **æ* > **a* /_CC# preceded syncope: in that case, **æ* would have been followed by a single coda consonant in *all* of the plurals, derivatives, and compounds in question, e.g., **mær.yi.tæ*, **æv.dæ.sæ.ron*, **ræs.tæ.væn.dag* (the latter two with the connecting vowel *-*æ*- < PIr. *-*a*-), and there would be no need to assume generalization from forms which retained the syllable structure *CæC.CV- after syncope, e.g., **ær.si.tæ*. **fæn.zæm*. This ordering would also provide a ready account for the failure of syncope in POss. **kosæg*, **mæasug*, **midæg*, etc.: following apocope of *-*i*, syncope occurred only in *non-final* syllables (cf. section 4.2 (4), (6) and n. 51). The relative chronology and correspondingly more complicated explanations proposed here depend entirely on the validity of Zelenčuk TZHPØE alongside oblique -H as evidence that apocope of *-*i* > *-*i* postdated the change of unstressed **ya* > **i*, which in turn followed syncope.

⁵⁶ In connection with the prehistory of obl. -*i* in Yaghnōbī (cf. n. 19). Sims-Williams has suggested that pre-POss. did not in fact possess a class of nouns with stressed endings, parallel to the Sogdian light stems. To be sure, evidence from present-day Ossetic for originally final stress in POss. words of more than two syllables containing only weak vowels is limited, cf. section 3. Yet both Iron and Digor agree in stressing the second of two weak vowels in disyllabic gen./iness. D *γædī*, I *qædy* to *γædé/qæd* “forest, wood(s), log”, D *særi*, I *særy* t *sær* “head”, and if this placement of stress is old, the relevant preforms in pre-POss. would have been **gad*-(a)yá, **sar*-(a)yá. Thus pre-POss. “heavy-stem” *-*i* < unstressed *-*ya* must have been generalized at least to these and other light monosyllabic nominal stems. (The same reasoning also applies to Yaghnōbī, unless pre-Yaghnōbī had uniform initial stress at the time of the reduction of word-final *-yā(h) > *-i.)

⁵⁷ BENVENISTE (1929: 79) had already adduced pl. *-tā as an isogloss connecting “le groupe scythique”, i.e., Sogdian, Ossetic, and Yaghnōbī.

⁵⁸ First observed in Winter 1971: 221–22. For the last of these, cf. I *æxsin* “dark gray”, Av. *axšaēna-*, Khot. *āṣṣeiṇa-* “dark-colored” < PIr. **axšaina-*, Khot. *aṣṣāṇaka* “dove” (BAILEY 1945: 6 [citing a D variant *æxsinnængæ* (?)], ABAEV 1958: 220, 221, 1965: 137, EMMERICK 1989: 215 [§ 3.2.3.3.3.4, 20]); on the sound changes involved, see n. 20 above. ABAEV (1965: 137) and WINTER (1971) also compare TB *eñcuwo*, TA *añcu* “iron” with Oss. *ændon* “steel”, but the Tocharian forms more closely resemble Khwarezmian *hnčw* (Schwartz, cited in MACKENZIE 1972: 64). For details and additional references, see R. KIM 1999: 123–29.

⁵⁹ Thus Yaghnōbī most likely continues an isolated dialect of early Sogdian which, besides the Rhythmic Law, escaped several other typical Sogdian innovations, e.g., PIr. **θr* > *š* (cf. Sogd. *šē* “three” vs. Proto-Yaghnōbī **θray* > western *tirāy*, eastern *sarāy*) or loss of the augment and 3pl. *-ār (> Yaghnōbī -*ōr*). For further discussion, cf. XROMOV 1972: 119–35. ORANSKIJ 1975: 119–20 with refs.

⁶⁰ After submitting the revised proofs of this article, I came across Alain Christol's "Introduction à l'ossète: Éléments de grammaire comparée", in *LALIES: Actes des sessions de linguistique et de littérature* 8 (1986): 7–50, and gained access to a copy of Dr. Johnny Cheung's newly published doctoral thesis. *Studies in the Historical Development of the Ossetic Vocalism* (Wiesbaden: Reichert, 2002). Despite significant points of disagreement (cf. CHRISTOL, 31–35, on the origin of the case endings), I am pleased to learn that both scholars agree with many of the phonological developments proposed above, and I look forward to incorporating their contributions into my future research on Ossetic.