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48. The morphology of Italic

0. Introduction

"Italic morphology" as construed here concerns the morphological systems visible in and (insofar as they can be reconstructed) ancestral to Latin (from its earliest stages through the Classical period) and Faliscan (the representatives of the "Latino-Faliscan"

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through the Classical period) and Faliscan (the representatives of the "Latino-Faliscan"

branch of the family), as well as the Sabellic languages (Oscan, Umbrian, South Picene, Pre-Samnite, and the so-called "minor dialects" of central Italy, such as Paelignian, Marsian, Volscian, and others). Although Venetic, Sicel, and possibly Lusitanian may belong to an "Italic" family (in some sense), they are not treated here.

Inevitably, the bulk of the data cited below comes from Latin, given the sparse and often fragmentary attestation of the Sabellic languages and of Faliscan. Forms unidentified as to language are Latin, sometimes specified as to chronology, for which this chapter follows a version of the periodization in Weiss (2011: 23−24): "VOL" = "Very Old Latin" (7th/6th to 4th/3rd centuries BCE), "OLat." = "Old Latin" (3rd/2nd centuries BCE), "Class." = "Classical Latin" (1st century BCE to 3rd/4th centuries CE), plus occasional reference to Late Latin. Forms are generally cited without textual reference; many standard resources are available for locating Latin material (such as the *Thesaurus Linguae Latinae* and its online counterpart), and Sabellic data may be located via the indexes in Rix (2002) and Crawford (2011). Following standard notational conventions, Latin material in SMALL CAPS is inscriptional; **boldfaced** forms in Faliscan and Sabellic languages are drawn from texts that use the native (or "national") alphabets of those languages, while Sabellic forms in *italics* come from texts that use a version of the Roman alphabet.

Coverage of Italic morphology may be found in the standard handbooks of Latin historical grammar, such as Ernout (1953) and the morphological portions of Leumann (1977), Sihler (1995), Meiser (1998), and Weiss (2011), along with the concise survey by Clackson (2011). For Sabellic, see Buck (1928: 113−194) and Clackson (2015); for Faliscan, see Bakkum (2009: 117−176). (More specialized works are cited below under individual morphological categories. For developments in Latin subsequent to the Classical period, see Väänänen 1981; Weiss 2011: 503−535; and Adams 2013.)

From the perspective of Proto-Indo-European (PIE) morphology, Italic presents a mixed picture: nominal and pronominal morphology are relatively conservative (note, for example, the maintenance of seven distinct cases in the noun, including a robust locative in Sabellic, as against the more limited system of post-Mycenaean Greek), whereas the verbal system presents numerous innovations, with marked divergences separating Latino-Faliscan and Sabellic. Nevertheless, most features of PIE verbal morphology survive in some form. Similarly, derivational morphology (which can be treated only briefly here) preserves many archaic features typical of the older-attested IE languages (such as root nouns), alongside many innovative formations.

1. Nouns

Bibliography: in addition to the handbook material cited above, note Klingenschmitt (1992) and Gerschner (2002) for Latin, Tikkanen (2011) for Sabellic.

Italic nominal declension (comprising both nouns and adjectives) preserves most features of PIE, with some simplification. Nouns and adjectives are inflected for number, but singular and plural only. (See, however, 1.1.2 ["Nom. pl. masc."] and 5.1.1 ["2"] for dual relic-forms.) The PIE array of eight cases (as in Sanskrit) has been reduced to seven (nominative, vocative, accusative, dative, ablative, genitive, and locative, this last with marginal usage in Latin), with the Italic "ablative" continuing both PIE ablative and

instrumental forms, as well as some PIE locatives. The various PIE stem-classes devolved into five descriptive nominal categories, traditionally (in Latin grammar) called "declensions", organized as follows if considered historically:

"1st declension": PIE *eh₂*-stems (or "*ā*-stems");
"2nd declension": PIE thematic formations (or "*o*-stems");
"3rd declension": PIE *i*-stems and consonant stems;
"4th declension": PIE *u*-stems;
"5th declension": descriptively "*ē*-stems", with controversial PIE status (see 1.5).

(For the distribution of grammatical gender within the declension classes, see the individual treatments below.) Reductions in ablaut variation in the original athematic classes have largely obscured the PIE accent-ablaut categories ("acrostatic", "proterokinetic", etc.), as these have been conceived in traditional accounts of PIE grammar, as well as patterns of so-called "internal derivation" (see e.g. Fortson 2010: 119−122).

It will be most convenient to begin with the 2nd declension.

1.1. The second declension

The Italic "2nd declension" continues PIE *o*-stems, including both plain *o*-stems and forms built with complex thematic suffixes (nouns and adjectives in *-ro*-, instrument nouns in *-tro*-, etc.; see 6.1 on nominal suffixal derivation). The "*o*" of the term "*o*-stems" refers to one of the two variants of the PIE stem vowel known as the "thematic vowel" (*-o*- ~ *-e*-), which is present in all case forms except gen. sg., preceding a desinence. This original structure is sometimes visible on the surface (e.g. voc. sg. *-e*, with thematic vowel *-e* plus "zero ending", or OLat. nom. sg. masc. *-os* < *-o-s*), but is more often obscured by phonological (and sometimes analogical) developments (see 1.1.2 for some details). Nouns in this category are mostly masc. and neut., the only systematic exception (apart from episodic cases: e.g. *humus* fem. 'earth', an original root noun, cf. Gk. χθών 'id.' fem.) being tree and plant names, which are regularly feminine (e.g. *fāgus* fem. 'beech', cf. Gk. φηγός 'id.' fem.); see Weiss (2011: 226−227).

1.1.1. Sample Latin paradigm (*lupus* 'wolf', *Corinthus* 'Corinth' for loc. sg., *Carseolī* 'Carseoli [mod. Carsoli]' for loc. pl.)

	SINGULAR	PLURAL
Nom.	*lupus*	*lupī*
Voc.	*lupe*	*lupī*
Acc.	*lupum*	*lupōs*
Dat.	*lupō*	*lupīs*
Abl.	*lupō*	*lupīs*
Gen.	*lupī*	*lupōrum*
Loc.	*Corinthī*	*Carseolīs*

For neuters (e.g. *iugum* 'yoke'): as above, except nom./voc./acc. sg. *iugum*, nom./voc./acc. pl. *iuga.* (This pattern of formal case identity is a regular feature of neuter inflection, inherited from PIE.)

1.2.2. Notes on the case endings

Nom. sg. masc.: OLat. *-os* (and *-os* after [w] in Class. Lat.: *servos* 'slave') < PIE **-o-s*. Nouns and adjectives in **-ros* undergo phonological developments leading to nom. sg. *-er* (*ager* 'field' < pre-Lat. **agros*; cf. 2.1 below on *sacer*, *līber*).

Nom./voc./acc. sg. neut.: a few neut. forms show nom./voc./acc. in *-us*, e.g. *pelagus* 'sea' (borrowed from Gk. πέλαγος neut.), *vīrus* 'poison' (with complex PIE background, probably involving a root noun or consonant stem).

Voc. sg.: < PIE **-e* (cf. Gk. ἄδελφε 'O brother'), i.e. the bare thematic stem, with **-e* + "zero ending".

Acc. sg.: OLat. *-om* (and *-om* after [w] in Class. Lat.: *servom* 'slave') < PIE **-o-m*.

Dat. sg.: VOL and Fal. /-ōi̯/ (VOL ᴅᴠᴇɴᴏɪ 'bonō'; Fal. **titoi** [personal name], perhaps with shortening to /-oi̯/) < PIE **-ōi̯* (contracted from ***-o-ei̯*) = Gk. -ῳ, Ved. *-āy-* (in dat. sg. *-āya*); monophthongized to /-ō/ by OLat. (Fal. **tito** is probably an error for **tito<i>**; Bakkum 2009: 126−127.)

Abl. sg.: OLat. *-ōd* (mainly inscriptional), cf. Ved. *-ād* (and similar material in Balto-Slavic); the PIE reconstruction is controversial, see Weiss (2011: 202).

Gen. sg.: < PIE **-iH*, replacing the thematic vowel (as in Celtic and elsewhere), perhaps related to the so-called *vr̥kī́* suffix ('belonging/appertaining to X'); VOL (and OFal.) also -ᴏsɪᴏ (cf. Ved. *-asya*, Hom. -oιo < PIE **-osi̯o*); see Weiss (2011: 203−204, 222) and Bakkum (2009: 129−130) for further details and references. There is limited evidence for a Faliscan genitive spelled <-ᴏɪ> (of unclear analogical origin, if the forms in question are really genitives); see Bakkum (2009: 131−132) for discussion.

Loc. sg.: OLat. -ᴇɪ < PIE **-ei̯* (as in Sabellic, cf. below) or **-oi̯* (cf. Gk. οἴκοι 'at home'), with regular monophthongization to *-ī*; used freely only in place names and a few locational nouns and fixed expressions (e.g. *domī duellīque* 'at home and in war').

Nom. pl. masc.: < PIE **-oi̯* (nom. pl. of the pronominal declension, cf. 4), with regular monophthongization. The synchronic nom. pl. *-ī* in a few forms (including some neuters) may continue the PIE o-stem neut. dual **-o-ih_1*, e.g. *frēnī* 'reins' (sg. *frēnum*); see Weiss (2011: 195 n. 9). An alternate nom. pl. masc. in *-eis* (also spelled *-es*, *-is*) is well attested inscriptionally (mainly in OLat.) but virtually unattested in literary texts (apart from pronominal forms). It is functionally restricted (frequent onomastic use and in official titles, e.g. *magistreis* 'public officials'), and its origin is obscure; see Wachter (1987: 253−254), Vine (1993: 215−239), Bakkum (1994), Adams (2003: 677−678), Dupraz (2004), Adams (2007: 417).

Nom./voc./acc. pl. neut.: *-ă* is an innovation (cf. Ved. *yugā́* 'yokes', with ending **-eh_2*), though it is not clear whether this is a morphological development based on consonant stems (**-C-h_2* > **-C-ă*) or a phonological shortening (cf. 1.2.2 on nom. sg. fem. **-eh_2*).

Acc. pl.: < PIE **-o-ns* (perhaps originally ***-o-m-s*, cf. acc. sg.), although the details of the phonological development to *-ōs* are disputed.

Dat. pl. and abl. pl.: VOL -OIS, OLat. -EIS < PIE instr. pl. *-ōi̯s; forms in -ibus (cf. 1.2.2 on -ābus) are either analogical (e.g. generibus 'sons-in-law' [Accius] after patribus 'fathers'; diibus 'gods' [Petronius] after deābus 'goddesses') or reflect post-Classical developments (thus FILIBVS et sim. on late inscriptions, Ernout 1953: 34).

Gen. pl.: -ōrum is based on the fem. gen. pl. pronominal ending (see 1.2.2 on -ārum), replacing *-ōm (< *-oHom), maintained (with regular shortening) as a variant for some forms (e.g. deum 'of the gods') and in some fixed expressions (see also 1.1.3 on Sabellic).

Loc. pl.: < PIE *-oi̯su (Ved. -eṣu), with regular monophthongization; the loss of the final -u may be phonologically regular. For further details on the case endings, see Weiss (2011: 220−225).

1.1.3. Notes on Sabellic

The most salient morphological differences (apart from purely phonological developments, which often obscure fundamental relationships with Latin) are the following:

Gen. sg.: -eis, i.e. the original i-stem ending (O. **sakarakleís** 'shrine').

Loc. sg.: -ei remains productive (vs. the restricted behavior of Latin); also, -ei̯ + postposition *-en leads (by yod-loss and contraction in *-ei̯-en) to a new ending "-ēn", especially in noun + adj. expressions (O. **húrtín Kerríín** 'in the grove of Ceres', SPi. **ombriíen akren** 'in Umbrian territory').

Nom. pl. masc.: PIE *-ōs (< **-o-es, with early contraction) is retained (O. **Núvlanús** 'inhabitants of Nola').

Nom./voc./acc. pl. neut.: unshortened *-ā (< PIE *-eh₂, cf. 1.1.2) (O. **prúftú** '[things] put forth').

Gen. pl.: *-ōm is maintained (with a secondary shortening; Weiss 1998) (U. **pihaklu** 'purification rites', SPi. **raeliom** 'the Raelii').

1.2. The first declension

The Italic "1st declension" continues PIE feminine formations ("ā-stems") built with an invariable suffix *-eh₂(-) (the view followed here) or (according to a different conception, as in Beekes 2011: 199−201) an ablauting suffix *-eh₂(-) ~ *-h₂(-). These forms provide both substantives and the feminine forms of o-stem adjectives. The rare Latin masculine nouns reflect personalizations of original feminine abstracts, mostly compounds (e.g. agricola *'field work' → 'farmer'), or appear in borrowings (nauta 'sailor', cf. Gk. ναύτης) and some onomastic forms (in some cases of Etruscan origin).

1.2.1. Sample Latin paradigm (*fēmina* 'woman', *Rōma* 'Rome' for loc. sg., *Athēnae* 'Athens' for loc. pl.)

	SINGULAR	PLURAL
Nom.	*fēmina*	*fēminae*
Voc.	*fēmina*	*fēminae*
Acc.	*fēminam*	*fēminās*
Dat.	*fēminae*	*fēminīs*
Abl.	*fēminā*	*fēminīs*
Gen.	*fēminae*	*fēminārum*
Loc.	*Rōmae*	*Athēnīs*

1.2.2. Notes on the case endings

Nom. sg.: The expected outcome /-ā/ (< *-eh₂) survives in Sabellic (see 1.2.3). The Latin ending *-a* probably reflects the original vocative (also from *-eh₂, but with the laryngeal lost *in pausa* by "Kuiper's Law").

Acc. sg.: The expected outcome /-ām/ (by "Stang's Law") underwent a regular shortening to /-am/ (but cf. on Sabellic below).

Dat. sg.: PIE *-eh₂-ei > *-āi, OLat. -AI (well attested inscriptionally), later *-ae*. (See Adams 2007: 46−50, 78−88 and Weiss 2011: 233 n. 5 on the inscriptionally-attested monophthongizations -A and -E, especially frequent outside Rome.)

Abl. sg.: < Ital. *-ād (well attested inscriptionally in OLat. as -AD), analogically formed after the *o*-stem abl. sg. (in PIE, the *eh₂*-stem abl. sg. was identical to gen. sg.); but see also 3.1 on abl. *viā*/U. **vea**, *uia* 'along the way' (perhaps an old instrumental).

Gen. sg.: PIE *-eh₂-es > /-ās/, retained in Sabellic (see below) and in a few relic forms in Latin (e.g. *familiās* in *pater familiās* 'head of the household'), but replaced with *-āī* (at first disyllabic, as often in Ennius, Plautus, Lucretius) on the basis of 2nd declension gen. sg. *-ī*, eventually developing to *-ae*.

Loc. sg.: PIE *-eh₂-i > /-āi̯/ (perhaps generalizing the pre-consonantal sandhi outcome), OLat. -AI.

Nom. (and voc.) pl.: PIE *-eh₂-es > /-ās/, preserved in Sabellic (see below) but replaced in Latin with -AI, Class. *-ae* (modeled on *o*-stem /-oi̯/, see 1.1.2); the rare literary and inscriptional examples of Lat. *-ās* have been variously interpreted, but are probably not archaisms (see Weiss 2011: 235).

Dat.-Abl. pl.: Lat. *-īs* < *-ẹ̄s* < *-ei̯s* (e.g. AASTVTIEIS 'cleverness') < *-ais < *-āi̯s, replacing expected *-ābus by analogy with *o*-stem *-ōi̯s; attested forms in *-ābus* are secondary creations to distinguish fem. forms from their masc. counterparts (thus *deābus* 'goddesses' vs. ambiguous *d[e]īs* 'gods' or 'goddesses', LIBERTABVS 'freed women' beside *lībertīs* 'freedmen' or 'freed women'), which later spread to some fem. nouns (e.g. FEMINABVS 'women') (Weiss 2011: 236).

Gen. pl.: *-ārum* < **-āsōm* (cf. Myc. *-a-o* /-āhōn/, Hom. -ᾱων) drawn from pronominal declension (replacing expected **-ōm*), and the model for *o*-stem *-ōrum* (1.1.2). For further details, see Weiss (2011: 232−237).

1.2.3. Notes on Sabellic

Nom. sg.: /-ā/ (< **-eh₂*) survives (vs. Latin), though with regular rounding in Oscan and Umbrian, usually spelled: O. *touto*, U. **tuta** 'people', SPi. **qora** 'statue'.

   Acc. sg.: O. **paam** (relative pronoun, cf. Lat. *quam*) may indicate that Sabellic retained /-ām/ without shortening.

   Dat. sg.: Paelignian forms like *Minerva* 'to Minerva' probably reflect influence from comparable forms in dialectal Latin (see 1.2.2, "Dat. sg.").

   Gen. sg.: /-ās/ is retained: O. *eituas* 'money', U. **tutas** 'people'.

   Nom. pl.: /-ās/ is retained: O. **aasas** 'altars', U. **urtas** 'standing up'.

   Gen. pl.: unrhotacized in Oscan (*egmazum* 'things') and SPi. (**fitiasom** 'deeds'), but with rhotacism in Umbrian (**hapinaru** 'lambs'), as in Latin.

1.3. The third declension

The Italic "3rd declension" continues PIE root nouns (Untermann 1992) and athematic consonant stems (*s*-stems, *t*-stems, *n*-stems, etc.), including *i*-stems (**-i-* ~ **-ei̯-* stems, in PIE terms), but not *u*-stems (1.4). All three genders are represented, with restricted behavior in some classes following expected PIE patterns (e.g. heteroclitic *r/n*-stems are regularly neuter). Most root nouns and consonant stems are substantival (with exceptions, e.g. *āk*-stems and some other *k*-stems are adjectival), and both substantives and adjectives are represented among *i*-stems. (See 2.1 below on the *i*-stem inflection of adjectives generally.) Particularly important for the historical development is a complex interplay between consonant-stem endings and the *i*-stem suffix-plus-ending conglomerate (i.e. **-i-* ~ **-ei̯-* plus ending), whence ultimately a mixed inflection for the category as a whole. Thus, for example, Lat. nom. pl. animate *-ēs* (for both consonant stems and *i*-stems) reflects *i*-stem **-ei̯-es* (vs. consonant-stem **-es*, unattested in Latin but regular in Sabellic), while gen. sg. *-is* (for both categories) reflects consonant-stem **-es* (vs. *i*-stem **-ei̯-s*, preserved in Sabellic and used for both *i*-stems and consonant stems). A pivotal event for this history may have been the reduction (by haplology) of *i*-stem dat. sg. **-ei̯-ei̯* to **-ei̯*, which thus became identical to consonant-stem dat. sg. **-ei̯* (Klingenschmitt 1992: 105−107).

1.3.1. Sample Latin consonant-stem paradigm illustrating animate nouns (masc. *dux* 'leader', *Carthāgō* 'Carthage' for loc. sg., *Calēs* 'Cales' for loc. pl.) (see directly below for neuter nouns and *i*-stems)

	SINGULAR	PLURAL
Nom.	*dux*	*ducēs*
Voc.	*dux*	*ducēs*
Acc.	*ducem*	*ducēs*
Dat.	*ducī*	*ducibus*
Abl.	*duce*	*ducibus*
Gen.	*ducis*	*ducum*
Loc.	*Carthāgine, -ī*	*Calibus*

Neuters: As usual, neuters of all categories have the same form for nom./voc./acc., e.g. *s*-stem sg. *genus* 'origin, race', pl. *genera*; *r/n*-stem sg. *femur* 'thigh', pl. *femina*. (Neut. nom./voc./acc. pl. *-a* is regular for all classes, but the nom./voc./acc. sg. form varies by stem-class.)

   i-stem nouns: Regularly with gen. pl. *-ium* (vs. consonant-stem *-um*), neut. nom./voc./acc. pl. with *-ia*; in other parts of the paradigm where distinctive *i*-stem endings are found (details below), they generally alternate with consonant-stem forms − thus (for *turris* 'tower') acc. sg. *turrim ~ turrem*, abl. sg. *turrī ~ turre*, acc. pl. *turrīs ~ turrēs* (but see 2.1 on adjectival declension).

1.3.2. Notes on the case endings

Nom. sg. (masc., fem.): PIE animate *-s* (in consonant stems) is maintained in some phonological contexts (cf. *dux* = /duk-s/, 1.3.1), but has been lost in others, in some cases as early as PIE itself (thus *pater* 'father' < PIE *$ph_2tḗr$* < pre-PIE **ph_2-*tér-s*); there is thus no uniform nom. sg. animate desinence visible on the surface for consonant stems. In some categories, however, a nom. sg. marker /-s/ was added secondarily to an asigmatic PIE nom. sg.: thus some 3rd declension nouns in nom. sg. *-ēs* may derive from PIE hysterokinetic forms in nom. sg. *-ḗi̯* or *-ḗn* (> pre-Lat. *-ē*), e.g. *verrēs* 'boar' (original *n*-stem; cf. *fidēs*, 1.5). For *i*-stems: *-i-s* > *-is* (Lat. *turris*, 1.3.1), except when suppressed phonologically, e.g. *-V:tis* > nom. sg. *-V:s* (*Larīnās* 'inhabitant of Larinum').

   Nom./voc./acc. sg. (neut.): Prominent categories among consonant-stem substantives include *s*-stems, *men*-stems, and *r/n*-stems; *i*-stems are also represented (e.g. *mare* 'sea' < *mór-i-Ø*, with adjusted vocalism [Vine 2011: 264−265]).

   Acc. sg.: *i*-stem *-i-m* maintained to some extent in OLat. (and regularly in adverbs in *-tim* < *-ti-m*), but largely replaced by *-em* from consonant stems (i.e. *C-m̥* > Lat. /C-em/: *ped-m̥* > *pedem* 'foot').

   Dat. sg.: OLat. -EI (< PIE *-ei̯*) > Class. *-ī* (consonant stems); see above (1.3, introduction) on *i*-stem *-ei̯-ei̯* > *-ei̯* by haplology, whence also *-ī*.

   Abl. sg.: Class. Lat. *-e* (consonant stems) < PIE loc. sg. *-i* (the few OLat. forms of the type [C]OSOLED 'consul', LEGED 'law' are hyperarchaizing artificial creations, see Weiss 2011: 238 n. 1, with reference); *i*-stem *-ī* (best attested for neuter nouns and regular for adjectives, see further 2.1) < *-īd*, a Proto-Italic innovation (analogical to *o*-stem abl.

sg. *-ōd*), e.g. OLat. LOVCARID 'grove', Class. *ignī* 'fire' (generally replaced by consonant-stem *-e*, but sometimes infiltrating consonant stems: e.g. OLat. BOVID 'ox', Class. *bove*).

Gen. sg.: Class. Lat. *-is* (both consonant stems and *i*-stems) < PIE (consonant-stem) *-es* (OLat. -ES), but OLat. also -OS and (with regular raising) -VS (< PIE *-os*) (DIOVOS 'Iovis', HONORVS 'honōris', etc.); Faliscan, however, may have maintained *-os* (consonant stems) and *-is* (*i*-stems, spelled <-e>) distinct (see Bakkum 2009: 143−145).

Loc. sg.: *-e* = consonant-stem abl. sg., *-ī* is analogical to *o*-stem loc. sg.; see above ("Abl. sg.") for the PIE (consonant-stem) loc. sg. (the PIE *i*-stem loc. sg. does not survive).

Nom./voc. pl. (animate): *i*-stem *-ei̯-es* > Lat. *-ēs*, extended to consonant stems; an *i*-stem variant *-īs* (well-attested in MSS of Plautus, inscriptionally, and in the grammatical tradition, and also appearing in some consonant stems) may be analogical to the consonant-stem pattern nom. pl. *-ēs* ~ acc. pl. *-ēs* (cf. *i*-stem acc. pl. *-īs*); differently Nyman (1990) and Vine (2012: 565−567), with references (cf. also 1.3.3 on Sabellic).

Acc. pl.: consonant-stem *-ns*, thus *C-n̥s* > pre-Lat. *C-ens* > Lat. *C-ēs*; *i*-stem *-i-ns* > Lat. *-īs*, but undergoing replacement by *-ēs* during Class. Lat.

Dat.-Abl. pl.: *i*-stem *-i-bʰos* > Lat. *-ibus*, extended to consonant stems (thus *rēgibus* 'kings' [root noun], not †*rēgbus*).

Gen. pl.: consonant-stem *-oHom* > pre-Lat. *-ōm* > OLat. -OM (POIMILIONOM 'dwarves'), Class. *-um*; *i*-stem *-ium*, but with variation (e.g. *mēnsium*/*mēnsum* 'months') (cf. also 2.1 on adjectives/participles).

Loc. pl.: PIE forms do not survive (Latin uses the dat.-abl. pl.). For further details, see Weiss (2011: 198, 243−246).

1.3.3. Notes on Sabellic

In general, the consonant-stem vs. *i*-stem distinctions are more faithfully preserved in Sabellic than in Latin. Some of the more salient morphological differences are as follows:

Gen. sg.: *i*-stem *-ei̯s* is extended to consonant stems (O. **medíkeís** 'public official').

Acc. sg.: *i*-stem *-im* is regular in Sabellic (though recessive in Latin), but *o*-stem *-o-m* is used for consonant stems (O. *tanginom* 'decision', *n*-stem); problematic is SPi. **dikdeintem** (vs. **aúdaqum**), cf. Fortson (2016: 23).

Abl. sg.: *o*-stem *-ōd* is used for consonant stems in Oscan (O. **tanginúd** 'decision'), vs. loc. sg. *-i* (as in Latin) in Umbrian (**kapiře** '[sacrificial] bowl'); *i*-stem *-īd* like Latin (SPi. **arítih** 'with skill').

Loc. sg.: U. *ocre* 'mountain' (*i*-stem) with *-ei̯* or *-ēi̯* (no Oscan example); *-i* in U. consonant stems (e.g. **ferine** 'platter (?)'; O. κενσορτατηι 'office of censor' with *-ei̯* from *o*- or *i*-stems).

Nom. pl. (animate): PIE *-es* is preserved in consonant stems (*n*-stem O. **humuns** 'people', with regular syncope < *...n-es*); *i*-stem *-ei̯-es* (O. **trís** 'three', U. *pacrer*/Pael., Marruc. *pacris* 'propitious'); a few forms with /-īs/ may also be attested, as in Latin (see the references cited in 1.3.2 "Nom./voc. pl.").

Dat./Abl. pl.: Oscan consonant stems and *i*-stems, as well as Umbrian *i*-stems, use the *i*-stem form (as in Latin); but Umbrian consonant stems use a form based on *u*-stems, e.g. *fratrus* 'brethren' (*-us* < *-*u-b*ʰ*os*, see 1.4.3).

1.4. The fourth declension

The Italic "4ᵗʰ declension" continues PIE *u*-stems, both plain *u*-stems (with all three genders represented in Italic) and complex formations, among which *tu*-stem verbal nouns (masc. only; see also 7.3.1.5 ["supines"]) are best attested.

1.4.1. Sample Latin paradigms (animate: fem. *tribus* 'division of the people'; neut. *cornū* 'horn')

	SINGULAR	
	ANIMATE	NEUTER
Nom.	*tribus*	*cornū*
Voc.	*tribus*	*cornū*
Acc.	*tribum*	*cornū*
Dat.	*tribuī*, *tribū*	*cornū*
Abl.	*tribū*	*cornū*
Gen.	*tribūs*	*cornūs*

	PLURAL	
	ANIMATE	NEUTER
Nom.	*tribūs*	*cornua*
Voc.	*tribūs*	*cornua*
Acc.	*tribūs*	*cornua*
Dat.	*tribibus*	*cornibus*
Abl.	*tribibus*	*cornibus*
Gen.	*tribuum*	*cornuum*

1.4.2. Notes on the case endings

Nom. sg.: neut. *-ū* (for expected *-ŭ*, cf. Hitt. *tāru*, Ved. *dā́ru*, Gk. δόρυ 'wood') is secondary, perhaps based on the old neut. pl. (or collective) in *-*uh₂* > *-ū* (see Nom./voc./acc. pl. neut. below).

Dat. sg.: animate *-uī* < *-eu̯-ei̯*; the variant in *-ū* (anim. and neut.) is analogical to *i*-stems; Fal. **mercui** perhaps with analogical /-ui̯/ or /-ūi̯/ after *ā*-stem /-āi̯/ and *o*-stem /-ōi̯/ (Bakkum 2009: 146−147).

Abl. sg.: < *-ūd* (OLat. CASTVD 'abstinence'), analogical to 2nd declension abl. sg. (although some plain *-ū* forms may derive from instr. sg. *-u-h₁, cf. 6.1 on *astū*).

Gen. sg.: *-ūs* < *-eu̯-s*; alternate OLat. /-u(u̯)os/, /-u(u̯)is/ (SENATVOS [cf. Fal. **zenatvo**] 'senate', *frūctuis* 'fruit') either from old ablaut variant *-u-os/es* or analogical after 3rd declension; regular in Plautus and frequent in OLat. is yet another ending *-ī* (e.g. SENATI), by analogy with 2nd declension masculines.

Loc. sg.: only *diū* 'by day' < *dii̯éu̯ (whence analogically *noctū* 'at night'); the length-ened-grade desinence *-ēu̯ (Ved. *śátrau* 'enemy') is not preserved.

Nom. pl.: animate *-ūs* < *-eu̯-es*.

Acc. pl.: animate *-ūs* < *-u-ns*.

Nom./voc./acc. pl. neut.: *-ua* analogically (cf. 3rd declension: 1.3.1 *genera*, *femina*, cf. 1.1.2) for expected *-ū* < *-u-h₂*.

Dat.-abl. pl.: *-ibus* < *-u-bʰos* (with regular vowel-weakening); Class. Lat. forms in *-ubus* (e.g. *artubus* 'joints') are artificial (cf. OLat. TREBIBOS 'tribibus' [1.4.1]). For further details, see Weiss (2011: 250−253).

1.4.3. Notes on Sabellic

In general, *u*-stems are poorly attested in Sabellic.

Acc. sg.: U. **trifu** = Lat. *tribum*; O. *manim* is an artificial transfer to *i*-stem inflection, analogical to abl. sg. *manid* (with regular treatment *-ūd* > /-īd/, cf. O. *castrid* '?', U. **mani** 'hand').

Dat. sg.: U. *trifo* with the alternate ending as in Lat. *-ū*.

Loc. sg.: U. **manuv-e** 'hand' (with postposition **-e** = /-en/), *maronato* (term for a public office) < *-ou̯ < *-eu̯; U. *maronatei* shows a transfer to *o*-stem inflection (cf. OLat. gen. sg. SENATI above).

Abl. pl.: U. **berus** 'spits (for roasting)', SPi. **manus** 'hands', regularly < *-u-bʰos (> *-u̯fos > *-u̯fs > *-u̯ss > /-us/).

1.5. The fifth declension

This category of descriptive "*ē*-stems" is beset with difficulties, beginning from uncertainty as to whether there was an Italic 5th declension at all, rather than a purely Latin one. Apart from U. **ri**/*re* (cf. Lat. *rēs* 'thing'), hardly any Sabellic forms can be identified with certainty as *ē*-stems of the Latin type (see Tikkanen 2011: 42−43); and it is even possible that the Umbrian word is a borrowing from Latin (see Untermann 2000: 635, s. v.). Not surprisingly, therefore, the Indo-European background of the category is also in question. It is generally agreed that the two core forms (Lat. *rēs* and *diēs* 'day'; for the latter, cf. also Fal. **foied** 'today' < *gʰŏ̆-di̯ēd) arose secondarily, through regular phonological developments and subsequent analogies; thus for *diēs*: PIE acc. sg. *di̯eu̯-m (more specifically the "Lindeman-variant" *dii̯eu̯-m) > *dii̯ēm (by Stang's Law; later > Class. Lat. *diem*, with regular shortening), whence analogical nom. sg. *dii̯ēs (= Lat.

diēs and secondarily the rest of its 5th declension paradigm, apart from relic forms from the original paradigm, such as voc. sg. *di̯éu̯ > Iū-* in *Iūpiter/Iuppiter*). (Similarly, on the phonological development of *rēs* < PIE *reh_1i-*, see Weiss 2011: 254.) Other 5th declension forms may have individual explanations: e.g. *fidēs* 'faith' may continue a hysterokinetic *i*-stem (as if PIE *b^hid^h-éi̯ [+-s]) related (by "internal derivation") to the amphikinetic *i*-stem in Gk. πειθώ 'persuasion' (Hamp 1999), or may be influenced by a synonymous *crēdēs*, cf. *crēdō* 'trust' and Ved. *śrád + dádhāti* (Ernout-Meillet 1985 s. v. *fidēs*). Other prominent forms pose complex etymological and/or morphological problems: see e.g. Klingenschmitt (1992: 127) on *plēbēs* 'common people'; for *famēs* 'hunger', with disputed etymology, see Vine (2013); on *spēs* 'hope', see Nussbaum (2011). Thus, according to one view, "there was no *ē*-declension in PIE" (Fortson 2010: 209, similarly Weiss 2011: 253); but others (e.g. Beekes 2011: 199), broadly following Pedersen (1926), argue for PIE "*-(e)h$_1$-* stems", partly on the basis of alleged evidence from Baltic. A further 5th declension problem concerns nouns (mostly abstracts) built with a formant *-iēs* (e.g. *aciēs* 'sharp edge', *maciēs* 'leanness'), including some that show an alternation with *-ia* (e.g. *luxuriēs/luxuria* 'luxury'). The details are complex, but probably involve developments associated with the so-called "*deví̄*" and "*vr̥kí̄-*" formations of PIE (Piwowarczyk ms.).

Latin 5th declension nouns are feminine except for *diēs* (and its compound *merīdiēs* 'mid-day'), which is regularly masculine except in the meaning 'appointed day'.

1.5.1. Sample Lat. paradigm (*diēs* 'day')

	SINGULAR	PLURAL
Nom.	*diēs*	*diēs*
Voc.	*diēs*	*diēs*
Acc.	*diem*	*diēs*
Dat.	*diē, diēī, diei*	*diēbus*
Abl.	*diē*	*diēbus*
Gen.	*diēī, diei, dieī*	*diērum*

1.5.2. In general, given the (likely) innovatory status of this category, the case forms are all analogical (mainly based on 1st declension models), and show complex variation in the historical record. (Thus for 'day': also e.g. OLat. gen. sg. *diēs*, cf. OLat. 1st declension gen. sg. *-ās* [1.2.2].) For many details see Weiss (2011: 253−255), and for the OLat. inflection, see especially Gerschner (2002: 151−163), Ernout (1953: 70), Leumann (1977: 445−446). For many details on the forms belonging to 'day' and 'Jupiter' in both Latin and Sabellic, see Rix (2004).

1.5.3. Notes on Sabellic

Apart from U. dat. **ri**, abl. **ri**/*re* (cf. 1.5), the only clear *ē*-stem form is O. dat. **kerrí, keri** 'to Ceres' (originally an *s*-stem). All other alleged "5th declension" forms are problematic.

2.   Adjectives

2.1. Basic patterns

Adjectives are inflected according to one of two types, i.e. "1st and 2nd declension adjectives" or "3rd declension adjectives". In the first type, the feminine is supplied by 1st declension forms (corresponding to 1st declension nominal inflection), and the masculine and neuter are supplied by 2nd declension forms (corresponding to 2nd declension masculine and neuter nominal inflection). 3rd declension adjectives are inflected like 3rd declension *i*-stems. (There are no "4th declension adjectives" or "5th declension adjectives".) Perfect passive, future active, and future passive participles are inflected as 1st/2nd declension adjectives; present active participles are inflected as 3rd declension adjectives (with a complication in abl. sg. forms, explained below). (The formations of the participles are treated in 7.3.1.)

In dictionaries and grammars, adjectives are conventionally cited in the order "[nom. sg.] masc., fem., neut.", e.g. *laetus, laeta, laetum* 'happy'. In the 1st and 2nd declension type, 2nd declension forms exhibit the same formal variation as in nouns, i.e. nom. sg. *-us/-um* for most forms, but also nom. sg. masc. *-er* for many forms (whence acc. sg. and neut. nom./acc. *-rum* or *-erum*): thus *sacer* (still VOL SAKROS), *sacra, sacrum* 'sacred' (like *ager*, gen. *agrī* 'field') or *līber, lībera, līberum* 'free' (like *vesper*, gen. *vesperī* 'evening'). In the majority of 3rd declension adjectives, masc. and fem. forms are identical, with nom. sg. in *-is*, while the neut. nom. sg. ends in *-e* (so-called "two-ending" 3rd declension adjectives, e.g. masc./fem. *facilis*, neut. *facile* 'easy'). A number of other 3rd declension adjectives (mostly ending in *-x* or *-ns*, the latter including present active participles) have only a single form for nom. sg. masc., fem., and neut. (e.g. *audāx* 'bold', *audēns* 'daring'). A few "three-ending" 3rd declension adjectives (all with suffixal *-ri-*) have distinct nom. sg. forms for each gender: masc. *ācer*, fem. *ācris*, neut. *ācre* 'sharp'. The OLat. situation, however, is more complex; further details in Leumann (1977: 432−433). A unique relic of a feminine adj. in (original) *-ih$_2$* (the so-called "devī́ suffix") may survive in *Laurentis* (Ennius), if this reflects *Laurentīs* (Nussbaum 1973). On adjectival declension in Sabellic (largely the same as in Latin, insofar as this can be determined), see Buck (1928: 133−134).

There is, finally, considerable variation in 3rd declension forms with regard to consonant stem vs. *i*-stem inflection, comparable formally to the same variation in 3rd declension nouns (abl. sg. *-e* vs. *-ī*, gen. pl. *-um* vs. *-ium*, etc.; cf. 1.3), but with different distribution: e.g. *nt*-participles use abl. sg. *-e* when used as nouns or in abl. absolute constructions, vs. *-ī* in attributive usage; most adjectives favor (masc./fem.) acc. pl. *-īs*, but comparative adjectives (see next section) favor *-ēs*; etc.

2.2. Comparison

2.2.1. The comparative

In PIE (see Rau 2014), the primary comparative suffix *-i̯os- (zero-grade *-is-) − proba-
bly in origin an elative marker ('quite X, rather X') − was added directly to the root, as
in Lat. *magnus* 'big' (root *mag- plus suffix *-no-), but comparative (masc., fem.) *maior*
(< *mag-i̯os-), (original neut.) *magis* adv. 'more' (< *mag-is*). But this pattern was large-
ly given up: in the productive comparative formation, the suffix is added to the stem of
the positive form of the adjective, whether or not this is characterized by suffixal materi-
al; thus *facilis* 'easy' (< pre-Lat. *fak-li-*), compar. *facilior* 'easier' (not †*facior*). PIE
*-i̯os- inflected as an amphikinetic *s*-stem (animate nom. sg. *-i̯ōs, acc. sg. *-i̯os-m̥, gen.
sg. *-is-és, loc. sg. *-i̯és ± i, etc.), but the nom. sg. form of the suffix has been generalized
throughout the paradigm (thus gen. sg. *facheliōris* < *-i̯ōs-es, with rhotacism; cf. the pre-
rhotacism form *meliosem* 'better' [acc. sg.], preserved in the Roman grammatical tradi-
tion). The neut. nom./acc. sg. has the form *-ios (facilius), beside relic forms with zero
grade *-is (cf. the adv. *magis* above, vs. the regular neut. comparative adj. form *maius*;
in Sabellic, e.g. O. *mais* 'more' if from *meh₂-is, although the form is ambiguous).
Traces of *e*-grade *-i̯es- may survive in a few forms, such as *mulier* 'woman' (< *ml̥-i̯es-,
generally assumed to belong originally with *melior* 'better'; this connection is rendered
uncertain, however, by VOL ᴍᴠʟɪᴀʀ[] and the stem *maies-* of *maiestās* 'greatness'. The
neut. (nom./)acc. form of the adjective supplies the regular comparative adverb (*facilius*
'easier [thing]' and 'more easily'), the type of comparative form best attested in Sabellic
(O. *fortis* 'fortius', with regular final-syllable syncope). (See 3 for more on adverbial
formations.)

      The PIE suffix *-tero-, although used to make regular comparative adjectives else-
where (as partly in Greek and Sanskrit), was not in origin a comparative suffix as such,
but had a contrastive or oppositional function, well-represented in Italic: Lat. *dexter*, U.
destrame 'right (as opposed to left)' (cf. Gk. δεξιτερός). (Differently on *-tero-: Baldi
and Cuzzolin 2010; but see the critical remarks, with further references, by Martzloff
2013: 118−119.)

      Synthetic comparison (i.e. phrasal expressions like *magis idōneus* 'more useful', *max-
imē ēgregius* 'most outstanding') is attested from the earliest Latin literature, and be-
comes widespread in later stages of the language (see Väänänen 1981: 118−119). Apart
from a tendency for this pattern to appear, in the Classical language, with adjectives in
-*eus* and -*ius*, this has more to do with syntax (and sociolinguistics) than morphology,
and will be left aside here.

2.2.2. The superlative

The superlative suffix *-is-m̥mo- (a significant isogloss with Celtic, see Cowgill 1970)
consists of the zero-grade of the comparative suffix followed by a formant *-m̥mo-,
otherwise used to derive superlatives from adverbial bases (*sup-m̥mo- 'highest' > *sup-
omo- > [with syncope and assimilation] Lat. *summus*, U. **sume**). This suffix is visible
only indirectly (having been obscured by the application of regular phonological process-

es) in three classes of forms, namely (i) adjectives in *-er* (whether 1st/2nd declension or 3rd declension: *līberrimus* 'most free', *ācerrimus* 'most sharp'), (ii) adjectives in *-lis* (*facillimus* 'most easy'), and (iii) in some suppletive superlative forms (2.2.3). Other adjectives use a suffix *-issimus* (the synchronically regular superlative suffix), apparently a version of *-is-m̥mo- with "affective" or "expressive" gemination of *-s-*. (See, however, Gunkel 2012 for a more nuanced approach to the gemination.) Oppositional adjectives in *-tero- use a suffix *-tm̥mo- (*dextimus* 'rightmost'), sometimes also found (instead of plain *-m̥mo-) with adverbial bases, as probably in *optimus* 'best' (cf. Lat. *ob*, O. **úp** 'at'; Weiss 2011: 361). (On the irregular syllabification in *-m̥mo- and *-tm̥mo-, see Rau 2014: 331.)

The PIE superlative suffix *-isto- (Ved. *-iṣṭha-*, Gk. -ιστο-) − again built with comparative *-is- plus another formant − may survive in a few relic forms, such as Lat. *sōlistimus* 'very favorable' (secondarily remade with *-imus*, cf. OE *sēlest* 'best' < *sōl-isto-; Dieu 2009).

2.2.3. Suppletive comparison

In a small number of frequent and semantically basic adjectives ('good', 'bad', 'small', 'many'), the root form of the comparative and superlative differs from that of the positive form of the adjective (a widespread pattern in Indo-European, cf. Dieu 2011):

bonus 'good', but *melior* 'better' (cf. 2.2.1 on *mulier*) and *optimus* 'best' (2.2.2).

malus 'bad', but *peior* 'worse', *pessimus* 'worst' (based on a root *ped-, perhaps the same as *ped- 'foot' > '(at) bottom', hence 'worse, worst').

parvus 'small', but *minor* 'smaller', *minimus* 'smallest' (cf. Gk. μείων 'smaller', OCS *mĭnjii* 'id.', among other comparanda).

multus 'much, pl. many', but *plūs*/*plūrēs* 'more' (neut. *plūs* mainly in partitive use, with genitive: *plūs pecūniae* 'more [of] money', etc.), *plūrimī* 'very many, most' (based on PIE *pleh₁- 'fill'; original comparative *pleh₁-ios- perhaps continued in VOL PLEORIS/PLEORES [Carmen Arvale]. The inscriptional and grammatical records provide a great variety of forms, and the background of this material, as for the suppletive formations generally, is particularly complex; see Weiss 2011: 359−361 for details.).

3. Adverbs

3.1. Productive patterns

Each adjectival type (2.1) has its own productive adverbial formation: 1st/2nd declension adjectives make regular adverbs in *-ē*, OLat. *-ēd* (OLat. FACILVMED 'very easily', Lat.-Fal. RECTED = U. **rehte**, Lat. *improbē* 'improperly' = O. *amprufid*; the frequent forms *bene* 'well', *male* 'badly', with short *-ĕ*, result from the application of iambic shortening; cf. below on *modo* 'only'), and 3rd declension adjectives make regular adverbs in *-iter* (*fortiter* 'strongly'), which can surface as *-ter* as a result of syncope (*audāx* 'bold' → *audākiter > *audācter* 'boldly') or as *-er* as a result of haplology (*dīligēns*, stem *dīligent-* 'careful' → *dīligentiter > *dīligenter* 'carefully'). In OLat. (and to a lesser extent in

Class. Lat.) usage, the *-iter* formation spread secondarily to 1st/2nd declension adjectives (*pūrus* 'pure' → *pūriter* [Cato, Pomponius, Catullus], beside *pūrē* [Cicero, Livy, etc.]); and the regular adverb of *alius* 'other' is *aliter* 'otherwise'. A correspondent to the *-iter* formation is not attested in Sabellic; but cf. O. **akrid**, which may mean 'ācriter' and which has the form of an abl. sg. to the 3rd declension adjective corresponding to Lat. *ācer* 'sharp'.

The backgrounds of both formations are to some extent controversial. Lat. *-ē(d)* is generally considered to reflect an *e*-grade variant of the *o*-stem abl. sg. ending *-ō(d)*, partly on the strength of attested *-ēd* forms with *-d*, and also because of a presumed parallel with adverbial forms in both *-ō(d)* itself (e.g. MERITOD/*meritō* 'deservedly', O. *contrud* 'against'; the adv. *modo* 'only, just now', with *-ŏ*, results from iambic shortening, cf. above on *bene*, *male*) and *-ā(d)* (e.g. *eā* 'that way' in *praetereā* 'besides', cf. OLat. ARVORSVM EAD 'against that'; O. [**s**]**úllad** 'wholly'), which are also taken to continue old abl. sg. forms. But there is little evidence otherwise for a thematic abl. sg. ending *-ē(d)*, and an alternative explanation that assumes old instrumental forms in **-eh₁* > Ital. **-ē* (secondarily outfitted with "ablatival *-d*") may be preferable. (On the instrumental solution, which also accounts for a series of directional adverbs in *-ā* [< **-eh₂-eh₁*] unlikely to have a source in ablatives [*hāc* 'this way, over here', etc.], see 4.2 below, with references; similarly perhaps *viā*/U. **vea**, *uia* 'along the road', Vine 2010: 136. See also 4.2 on the directional adverbs in *-ū* [*hūc* 'to this place', etc.].) The suffix *-iter* may be based on a reinterpretation of the nom. sg. masc. of the oppositional suffix **-tero-* (cf. *alter* 'the other [of two]' and *aliter* 'otherwise'), or may involve an extension of the *-ter* seen in some "compound prepositions" of the type *praeter* 'beside' (cf. *prae* 'in front'), which are in turn analogical to the inherited adverbial form (> Lat. preposition) seen in *inter* 'between' (cf. Ved. *antár*).

As noted above (2.2.1), the neut. acc. sg. of the comparative adjective functions as the comparative adverb; but the process is more general. The "adverbial accusative" (see in general Ernout-Thomas 1953: 28−29) is not fully productive, but is well attested in terms referring to quantity and extent, as well as in pronominal forms that often develop as conjunctions (e.g. *quod* 'because'). The pattern is used for some common adjectives of both declensional types, e.g. *multum* 'much' (to *multus* 'much, pl. many', 1st/2nd declension adj.), *facile* 'easily' (to *facilis* 'easy', 3rd declension adj.); similarly in Sabellic: U. *promom* 'first' (adj. stem **promo-*), cf. (with a version of the same root but a different suffixal formation) Lat. *prīmum* 'first' (adj. *prīmus*). The adverbial suffix *-tim* originated in the acc. sg. of *ti*-stem nouns (e.g. *partim* 'partly', *statim* 'immediately'), but then, on the basis of reinterpretations like *statim* ← *status* (participle to *stāre* 'to stand'), came to be formed from perf. passive participles (e.g. *cursim* 'on the double' ← participle *cursus*, to *currō* 'run'), whence forms in *-ātim* (*nōminātim* 'by name'), which in turn led to the productive use of *-ātim* with nominal stems (*generātim* 'by classes'), among other secondary developments. (See Leumann 1977: 501−502 for further details.) An acc. sg. origin may also underlie some adverbs in *-am* (e.g. *clam* 'secretly', *palam* 'openly'). But the *-im* of adverbs like *interim* 'meanwhile', *ōlim* 'at a distant time' may go back to a metanalyzed suffixal *-im* abstracted from *i*-stem forms that preserve an archaic ablative-instrumental formant **-m*, cf. *hinc* 'from here' (< **gʰi-m-k[e]*), Gk. πρίν 'before' (< *pri-m). (On adverbial *-[i]m*, see Dunkel 1997 and 2014: 1.137−148, developing an insight of Delbrück.)

3.2. More isolated patterns

The inherited adverbial suffix *-tos (Dunkel 2014: 1.191−194), originally used with local adverbs (*intus* 'from within', cf. Gk. ἐντός), has an ablatival sense. It spread secondarily to nouns (*funditus* 'from the ground up', cf. *fundus* 'ground, bottom'), just as occurred in Sanskrit (Ved. *parítaḥ* 'round about', but also *hr̥ttáḥ* 'from the heart'). A series of adverbs in *-per* (mostly time adverbs, e.g. *semper* 'always', *topper* 'quickly') probably show a postpositional usage of the preposition *per-* (Baldi and Cuzzolin 2009). Some prepositions (a category derived mainly from PIE adverbial particles) also function as self-standing adverbs (e.g. *ante*: prep. 'before, in front of' and adv. 'beforehand'). Some isolated adverbs based on nouns have arisen from case forms other than acc. sg. or abl./instr. sg., e.g. *nox* 'by night' (old nom. sg. or gen. sg.).

See 4.2 on some pronominal adverbs and 5.3 for multiplicative adverbs.

4. Pronouns

Bibliography: in addition to the standard lexica, see relevant entries in Dunkel (2014, Vol. 2); for the demonstrative pronouns in Sabellic, see Penney (2002), Tikkanen (2011: 44−48), Dupraz (2012).

For the gendered pronouns (represented in Italic by the deictic and anaphoric pronouns [4.1], demonstrative pronouns [4.2], and relative and interrogative pronouns [4.3]), PIE displayed a special "pronominal inflection", which nevertheless shared a number of features with thematic (*o*-stem and *ā*-stem) inflection. (The gendered pronouns have the same inflectional properties as nouns, except that there are no special vocative forms.) Some of the features of PIE pronominal inflection are retained in Italic pronouns and pronominal adjectives, and will be pointed out below. Salient features of pronominal inflection include the following: (i) suppletive stems (two or more different stems within a single paradigm); (ii) lack of *-s in some nom. sg. masc. forms; (iii) final *-d in some nom./acc. sg. neut. forms; (iv) gen. sg. forms with *-si̯- (cf. 1.1.2 on *o*-stem gen. sg. *-osi̯o*); (v) dat., abl., loc. sg. masc./neut. forms with *-sm-; (vi) some pl. forms with a diphthongal element, e.g. nom. pl. masc. *-oi̯ (cf. 1.1.2 on 2nd declension nom. pl. masc.) and medial *-oi̯- in some other endings. Elements of pronominal declension are also found in a series of semantically basic adjectives (4.4).

Personal pronouns (4.5) are still more anomalous, with forms that vary widely across the IE languages; thus the reconstruction of the personal pronouns remains unclear in many respects. As often, Italic retains some archaic features, along with a number of innovations.

4.1. Deictic and anaphoric pronouns

The PIE *so/*to- deictic pronoun (Ved. *sá/tá-*; Gk. ὁ, neut. τό; TB *se*; Go. *sa*, neut. *þata*, etc.) survives for the most part only in traces, especially in frozen adverbial forms (e.g. Lat. *tum* 'then', *tam* 'so') and in pronominal forms (and some adverbs) largely restricted to OLat., such as forms built to an innovated paradigm in *so- (e.g. OLat. masc. acc.

sg. *sum*, fem. *sam*, masc. acc. pl. *sōs*; here also loc. sg. **sei(-ke)* > OLat. SEI, Lat. *sī*,
Volsc. **se** 'if' and Lat. *sīc* 'thus'). But the inherited fem. nom. sg. *seh₂ (Ved. *sā́*, Gk. ἡ,
Go. *so*) may survive as an adnominal enclitic in South Picene, with definite reference
or demonstrative function: **praistakla-sa** 'the standing object [= statue]' or 'this statue'
(Dupraz 2012: 256−258, with references).

The pronominal stem **k̂o-* (developed from the near-deictic particle **k̂e/*k̂i*) does
not survive as such, with the probable exception of SPi. **σidom** 'here, in this place'
(grammaticalized as an adverb from neut. nom./acc. sg. **k̂id-om*; see Dupraz 2012: 252−
256 and 4[iii] on the *-d* ending).

The anaphoric pronoun (used as a third person pronoun) is expressed by the supple-
tive stem (or stems; see Dunkel 2014 s.vv. **e-* and **í-*) **i-/*ei̯o-/*e-* (Go. *is*, acc. pl. *ins*;
Ved. *ayám*, *asyá*, etc.), sometimes reconstructed with initial **h₁-*, on which see Dunkel
(2014: 2.363). The Class. Lat. forms − provided as a sample that also illustrates essential
points of the remaining gendered pronoun forms − are as follows (with commentary
below):

SINGULAR			
	MASC.	FEM.	NEUT.
NOM.	*is*	*ea*	*id*
ACC.	*eum*	*eam*	*id*
DAT.	*eī*	*eī*	*eī*
ABL.	*eō*	*eā*	*eō*
GEN.	*eius*	*eius*	*eius*

PLURAL			
	MASC.	FEM.	NEUT.
NOM.	*eī, ī, iī*	*eae*	*ea*
ACC.	*eōs*	*eās*	*ea*
DAT.	*īs, iīs, eīs*	*īs, iīs, eīs*	*īs, iīs, eīs*
ABL.	*īs, iīs, eīs*	*īs, iīs, eīs*	*īs, iīs, eīs*
GEN.	*eōrum*	*eārum*	*eōrum*

Various archaic features of pronominal inflection are readily apparent, including:

4(i): suppletive stems **i-* (masc. nom. sg. *is*, neut. nom./acc. sg. *id*, OLat. masc. acc.
sg. *im*) ~ **ei̯o-* in most other forms (masc. acc. sg. *eum*, abl. *eō*, fem. nom. sg. *ea*, acc.
sg. *eam*, etc.) ~ **e-* in gender-indifferent gen. sg. *eius*, with gender-indifferent *eī*
(< **ei̯i̯ei̯*) built to this stem;

4(iii): neut. nom./acc. sg. in *-d* (*id*);

4(iv): gen. sg. in **-si̯-* (*eius* < **esi̯o+s*, cf. Ved. *asyá*).

Beyond the variation indicated for the plural forms above (partly phonological [the
monosyllabic forms result from contractions] and partly analogical [the *e-* forms in nom.
pl. masc. and dat./abl. pl. are analogical to the other *e-*forms]), there is considerable

further variation, especially in OLat. (e.g. gen. pl. *eum*, analogical to *o*-stem nominal gen. pl.; *i*-stem dat./abl. pl. *ībus*, etc.); see Ernout (1953: 83−84) for details.

The PIE stem-form **e-sm-* (in dat./abl./loc., cf. Ved. masc. dat. *asmaí*, abl. *asmā́t*, loc. *asmín* and 4[v]) does not survive in Latin but appears in some Sabellic forms (e.g. loc. sg. U. *esmei*, SPi. **esmín** < **esmei̯-en*, with postposition; but see 4.2 below on **esmo-* in Sabellic). Two additional Sabellic features are worth noting: "stem-doubling" (cf. de Vaan 2015) via a postposed particle *-id-* (originally the neut. nom./acc. sg. = Lat. *id*), and the frequent appearance of the postposed deictic particle **-ke* (in Italic terms, and generally apocopated in these forms) < PIE near-deictic **k̂e*; thus (with both features) O. nom. sg. masc. *izic* (< **is-id-k[e]*) and neut. **idik** (< **id-id-k[e]*), further (showing the second feature) O. masc. acc. sg. *ionc* (as if Lat. "*eunc*"), fem. nom. sg. *ioc* (as if Lat. "*eac*"), etc.

A suffixed version of the anaphoric pronoun produces a pronoun of identity, as in Lat. *īdem*, *eadem*, *idem* 'the same', and with a related suffix O. nom. sg. masc. **ísídum** 'id.', vs. U. nom. sg. masc. *eront* 'id.', with a different suffix *-(h)ont.* The historical analysis of these suffixes is complex and subject to differing interpretations; see Buck (1928: 147), Weiss (2011: 342), Dupraz (2012: 232−234), Dunkel (2014: 2.596 with n. 6). Some adverbial forms based on the anaphoric pronoun are noted in 4.2.

4.2. Demonstrative pronouns

The demonstrative pronouns in Italic display considerable formal (and to some extent syntactic/semantic) divergence between Latino-Faliscan and Sabellic. Cognates elsewhere in IE are limited and the Italic formations are largely innovated, apart from the maintenance of features of archaic pronominal inflection, much as with the anaphoric pronoun.

In Latin, there is a three-way contrast involving pronouns that are near-deictic (*hic* 'this [by me]', also indirectly attested in Faliscan), distal with second-person reference (*iste* 'that [by you]'), and far-deictic (*ille* 'that [over there]'). As with the anaphoric pronoun, all forms have gender-indifferent gen. sg. (*huius*, *istīus*, *illīus*, cf. 4.1 *eius*) and dat. sg. (*huic*, *istī*, *illī*, cf. 4.1 *eī*) and neut. nom./acc. sg. in *-d* (*illud*, *istud*, *hoc* < **hod-k[e]*, cf. 4.1 *id*). *Iste* and *ille* have so-called "reinforced" forms (i.e. with the deictic element *-c*) in OLat. and in spoken varieties (e.g. neut. nom./acc. sg. *istuc[c]* [< **istud-k(e)*] vs. Class. *istud*, masc. acc. sg. *illunc* vs. Class. *illum*); see Adams (2013: 454−459) on the facts of attestation and their sociolinguistic interpretation. Some further details on each of the three Latin demonstrative pronouns and their counterparts in Sabellic:

hic, *haec*, *hoc*. PIE **g^ho(−)* is innovative as a pronoun in Italic, but perhaps related to the Ved. particle *ghā̆*/*ha* and the particle *-go* appended to pronominal genitives in Slavic (Dunkel 2014: 2.283−288). Lat. *hic* < (endingless) pre-Lat. **ho-k(e)* (cf. PIE **so* [4.1] and 4[ii]) and phrasal vowel reduction, whence *hic*, OLat. ʜᴇᴄ (see Dunkel 2014: 2.285 n. 15). Fem. nom. sg. and neut. nom./acc. pl. *haec* have a particle **-i-* or **-ī-* preceding the deictic element. Neut. nom./acc. sg. *hoc* is underlyingly /hocc/ < **hod-k(e)*, thus always scanned heavy in poetry (whence analogical heavy scansions for nom. sg. masc. *hic*, as if /hicc/). OLat. inflected *eccum* 'here he is', *eccam* 'here she is', etc. may

contain this pronoun (i.e. < *ekke-hom, *ekke-ham, etc.), as does the univerbated form *hodiē*, Fal. **foied** 'today' (with hypercorrect *f-*), probably with (secondarily shortened) abl. sg. *hō(d)* + abl. sg. *diē(d)* 'day'; a similar univerbation may underlie Lat. *hōrnus* 'this year's', unless it is a compound with uninflected first member *ho-*. There is no corresponding Sabellic form (see below on the proximal pronouns in Sabellic).

iste, ista, istud. The background of this form is controversial; for competing theories and possible extra-Italic comparanda, see Weiss (2011: 345). Part of the problem: how to evaluate, vis-à-vis Lat. *iste* (with /i-/), the vocalism of the Sabellic forms, with initial /e-/, as in U. **este, estu** etc., SPi. **estas** etc. (This pronoun is not found in Oscan, with the partial exception of **estam** in Pre-Samnite, a language closely related to Oscan.)

ille, illa, illud. OLat. (and in archaizing Class. Lat. contexts) *olle*, with the original vocalism (cf. O. **ulas**, and extra-Italic comparative material pointing to *ol-no-*, see Dunkel 2014: 2.592−593), cf. also OLat. *uls* 'on the other side', Class. *ultrā* 'beyond' (compar. *ulterior*, superl. *ultimus*), and a lengthened-grade form in the adv. *ōlim* 'at one time' (cf. Ved. *āré* 'in the distance', *ārā́t* 'from a distance'). The *i*-vocalism of *ille* must be secondary (e.g. after *is, iste, ipse*).

All three have related adverbial forms, e.g. locative in *-ei* (ʜᴇɪᴄ, *hīc* 'here' [Fal. **hec, fe**], similarly *istīc* 'there (by you)', *illīc* 'there'); directional forms in *-ō* and *-ā*, perhaps old instrumentals (García Ramón 1997; Vine 2010: 127−128), or (for *-ō-*) from the PIE "directive" (*hōc* 'to this place', *eō* 'to that place'; *hāc* 'over here', *aliā* 'in another direction', *eā* 'that way' in *intereā* 'meanwhile'); directive forms in *-ūc* (i.e. *-ū*, of unclear origin, plus *-k[e]*: *hūc* 'to this place', *illūc* 'to that place'), and others (see Weiss 2011: 354 for details).

As just seen, Lat. *iste* and *ille* have cognates in Sabellic; but the Sabellic systems are in many ways quite different, and also involve marked dialectal distributions within Sabellic. Thus the Sabellic proximal pronoun stem *esto-* (direct cases) appears to be in a suppletive relationship with *esmo-* (oblique cases), as shown by the Umbrian and South Picene data (Dupraz 2012: 29−60); and the Sabellic distal pronouns *ollo-* (Oscan) and *ōlo-* (Umbrian: U. **ulu**/*ulo*; cf. Lat. *ōlim*) are poorly attested but show interesting commonalities (Dupraz 2012: 117−127). Much better attested, finally, are proximal pronoun stems *eko-* and *ekso-* (in Oscan and Umbrian), but with a complex distribution: *ekso-* (Umbrian) vs. suppletive *eko-* (direct cases) and *ekso-* (oblique cases) in Oscan (Dupraz 2012: 63−115).

There is also a so-called "emphatic" (or focalizing) pronoun *ipse* 'himself' in Latin (with the same features of pronominal inflection as the anaphoric and demonstrative pronouns, except neut. nom./acc. sg. *ipsum*). Although *ipse* is often thought to have arisen within Latin (e.g. Weiss 2011: 346−347, based in part on forms of the type OLat. fem. nom. sg. *eapse* vs. Class. *ipsa*), comparison with formally and functionally similar O. **essuf**/*esuf*, U. **esuf** (Dupraz 2012: 239−247) complicates the question. The background of all of these forms is obscure, in part given their formal divergence (Lat. *i-* vs. Sab. *e-*, Sab. formant *-ōn-*).

4.3. Relative and indefinite/interrogative pronouns

The PIE relative pronoun *(H)i̯o-* (as in Indo-Iranian, Greek, Phrygian, Balto-Slavic) was not maintained in Italic. Rather, relative function was taken over by the PIE indefinite/

interrogative pronoun *$k^w i$- (*i*-stem) ~ *$k^w o$- (*o*-stem and *ā*-stem), as in Hittite, Tochari-an, and some other Indo-European traditions; and the same forms continue to be used with indefinite and interrogative functions.

The Class. Lat. forms of the relative pronouns are as follows:

	SINGULAR			PLURAL		
	MASC.	FEM.	NEUT.	MASC.	FEM.	NEUT.
NOM.	*quī*	*quae*	*quod*	*quī*	*quae*	*quae*
ACC.	*quem*	*quam*	*quod*	*quōs*	*quās*	*quae*
DAT.	*cui*	*cui*	*cui*	*quibus*	*quibus*	*quibus*
ABL.	*quō*	*quā*	*quō*	*quibus*	*quibus*	*quibus*
GEN.	*cuius*	*cuius*	*cuius*	*quōrum*	*quārum*	*quōrum*

Note gender-indifferent dat. sg. *cui* and gen. sg. *cuius* (cf. 4.2: *eī*, *huic* etc.; *eius*, *huius* etc.), as well as the neut. nom./acc. sg. in -*d* (cf. 4[iii], 4.1 *id*, 4.2 *illud* etc.). The forms *quem* and *quibus* are *i*-stem forms and the rest are *o*-stem or *ā*-stem forms. In Class. Lat. usage, indefinite/interrogative function calls for the distinct *i*-stem forms *quis* (ani-mate nom. sg.) and *quid* (neut. nom./acc. sg.), including compound pronominal forms like *aliquis* 'someone', *nesciŏquis* 'someone or other' (and others; on the full set, see Weiss 2011: 352−353). But at earlier periods (and in Sabellic), and in archaizing usages in the Classical language, there is considerably more variety, with *i*-stem forms attested more prominently, such as anim. nom. pl. QVES/*quēs* and (so-called) abl. sg. *quī* (also in the postpositional phrase *quīcum* and the complementizer *quīn*), perhaps actually (or partly) an old instr. sg.; conversely, the old dat./abl. pl. *o*-stem form appears in OLat. *quīs*. Other forms survive as frozen relics outside the regular relative and indefinite/ interrogative paradigms, such as *o*-stem masc. acc. sg. OLat. *quom* > Class. *cum* 'when' or *i*-stem neut. (nom./)acc. pl. *quia* 'because'.

The Sabellic picture is similar (with the regular development of PIE *k^w- to Sab. *p*-), as in Oscan *o*-stem/*ā*-stem forms like masc. nom. sg. **pui** (cf. Lat. *quī*), fem. **paí**/*pae* (cf. Lat. *quae*), neut. **púd** (cf. Lat. *quod*), fem. acc. sg. **paam** (cf. Lat. *quam*), masc. acc. pl. Pael. **puus** (cf. Lat. *quōs*), neut. nom. pl. **paí** (cf. Lat. *quae*), and (with non-Latin nom. pl. forms, corresponding to standard Sab. *o*-stem/*ā*-stem declension, cf. 1.1.3 and 1.2.3) masc. nom. pl. O. **pús**, fem. **pas**. For *i*-stem forms: e.g. anim. nom. sg. O. **pis**/*pis*, neut. **píd** (cf. Lat. *quid*), anim. acc. sg. SPi. **pim** (cf. Lat. *quem*, replacing **quim*), anim. nom. pl. O. **píís** (cf. OLat. *quēs*), acc. pl. U. **pifi** (< **$k^w i$-ns*, plus a particle). Distinctive, however, are various oblique *sm*-forms (cf. 4[v]), such as dat. sg. U. **pusme**, SPi. **pos-múi**, Pre-Samn. πυσμοι. But there is again considerable variety on the Sabellic side: e.g. masc. gen. sg. O. **púiieh** (for **púiieís*), which does not match Lat. *cuius*, is the gen. sg. of a possessive adj. (with normal Oscan *o*-stem gen. sg. ending, i.e. the original *i*-stem ending [1.1.3]), this being otherwise attested in O. **púiiu** 'cuia'. For the pattern, however, cf. Lat. pronominal gen. sg. forms like *nostrī*, *vestrī*, likewise based on the corresponding possessive adjectives (4.5.1 below).

There is, finally, a series of adverbial forms based on a stem *$k^w u$- (cf. Ved. *kútra* 'where?', *kútas* 'from where?', etc.), e.g. O. **puf**, U. *pufe* 'where', cf. Lat. -*cubi* (in

alicubi 'anywhere'). The corresponding forms in Latin lack /k-/ in initial position (thus, in addition to Lat. *ubi* 'where', e.g. the particle *ut*, *utī*, which belongs with O. **puz**, U. **puze**/*puse*, and the pronominal adjective *uter* 'which of two?' [cf. 4.4]), but it is unclear whether this is a phonological or an analogical development (see Weiss 2011: 78 with n. 54).

4.4. Pronominal adjectives

Elements of pronominal inflection (in particular: gender-indifferent gen. sg. in *-īus* and dat. sg. in *-ī*) are also found in a series of semantically basic adjectives (otherwise of the normal 1st and 2nd declension type), including *ūnus* 'one' (and related forms: *ūllus* 'any' < **oinelo-*, *nūllus* 'none' < **ne-oinelo-*), *alius* 'other' (and *alter* 'one or another of two', based on the stem of *alius*), *uter* 'which of two?' (and *neuter* 'neither'), *sōlus* 'alone', and *tōtus* 'all'. To some extent, this behavior is inherited: thus for *alius*, with neut. nom./acc. sg. *aliud* (4[iii]), the only form in this set with that feature: cf. Gk. nom./ acc. sg. neut. ἄλλο < **aliod* and Ved. *anyád* 'id.' (but Lat. neut. *alid* [Lucretius, Catullus] is a secondary innovation); more generally, cf. pronominal inflection for Ved. *éka-* 'one' (e.g. loc. sg. *ékasmin*) < **(h₁)oi-ko-*, cf. Lat. *ūnus* < **(h₁)oi-no-*, and for Ved. *víśva-* and *sárva-* 'all' (e.g. loc. sg. *víśvasmin*, dat. sg. *sárvasmai*), cf. Lat. *tōtus*.

4.5. Personal pronouns

The personal pronouns in Italic (very poorly attested in Faliscan and Sabellic, given the nature of the text types in those languages) preserve much of the archaic suppletion and other irregularity characteristic of the PIE personal pronouns. For the reasons discussed in 4, reconstruction is exceedingly difficult; thus this material has more to do, in some respects, with lexicon (and lexical reconstruction) as opposed to morphology proper. The following discussion selectively treats some of the more salient morphological points, with only limited attention to etymology and extra-Italic comparanda. For further detail, see Weiss (2011: 325−334); also Buck (1928: 139−140) for Sabellic; and Bakkum (2009: 148−151) for Faliscan.

4.5.1. The personal pronouns proper lack gender (as elsewhere in IE), and have no special vocative forms (the nominative is used in vocative contexts); see 4.5.2 for the personal possessives ("possessive adjectives"). The Italic personal pronouns show three major reductions in inflection, as compared with PIE, namely (i) a reduced case system (nom., acc., dat., abl., gen., i.e. no continuation of instr. and loc. forms); (ii) no dual forms (unlike Indo-Iranian, Greek, Gothic, etc.); (iii) no systematic contrast between accented and enclitic forms (unlike Indo-Iranian, Greek, Anatolian, etc.), though some enclitic forms survive as relics and served as derivational bases for new formations.

   The Latin forms are given first, with commentary below, including some additional Latin material. (The treatment is restricted to the 1st and 2nd person pronouns and the reflexive pronoun; see 4.1 for the anaphoric pronoun, used as a 3rd person pronoun. The

reflexive pronoun had no nominative, and the sg. and pl. forms are identical, treated here with the 1st and 2nd person sg. forms.)

SINGULAR AND REFLEXIVE FORMS	1st person	2nd person	reflexive
NOM.	*egō, ego*	*tū*	---------
ACC.	*mē(d)*	*tē(d)*	*sē(d)*
DAT.	*mihī, mihi*	*tibī, tibi*	*sibī, sibi*
ABL.	*mē(d)*	*tē(d)*	*sē(d)*
GEN.	*meī*	*tuī*	*suī*

1st person nom. Lat. *ego* via iambic shortening; /egō/ also in Faliscan (OFal. **eqo/eko**, later **eco**) and South Picene (**ekú**). For the form, cf. Gk. ἐγώ, vs. Ved. *ahám* (with added particle *-om*).

2nd person nom. Like Lat. *tū* also O. **tiú** and (with added particle *-om*) **tiium**, cf. elsewhere e.g. Hom. τύνη, Av. *tū*, OCS *ty*.

1/2 acc. and refl. acc. OLat. **mēd** (Fal. **med/met**), **tēd**, **sēd** vs. Class. *mē, tē, sē*, but the reconstruction of the dental suffix is controversial; with a different particle in Sabellic, cf. Paleo-U. **míom,** U. *tiom*, O. *siom*; SPi. **tíom**, in an unclear context, may be acc. or nom.

1/2 dat. and refl. dat. OLat. MIHEI, TIBEI, SIBEI; Class. *tibi, mihi, sibi* via iambic shortening; mostly the same forms in Sabellic (U. *mehe*, SPi. **tefeí**, U. **tefe**, O. **tfei**, O. **sífeí**, Pael. *sefei*), also showing that Lat. /i/ in the first syllable is from enclitic weakening; but U. refl. *seso* probably < *soi* or *sei* followed by unclear material (see Untermann 2000: 682).

1/2 abl. and refl. abl. Cf. Ved. *mát, tvát*; the formal equivalence with acc. sg. is secondary (details in Meiser 1998: 157−158).

1/2 gen. and refl. gen. These forms belong formally to the gen. sg. of the corresponding pronominal adjectives (4.5.2). OLat. *tīs* (Plautus) continues the gen./dat. enclitic form *toi* plus a genitive *s*-marker from the nominal system; a corresponding OLat. *mīs*, though claimed in Roman grammatical literature, may not have existed (Weiss 2011: 327 n. 7).

PLURAL FORMS	1st person	2nd person
NOM.	*nōs*	*vōs*
ACC.	*nōs*	*vōs*
DAT.	*nōbīs*	*vōbīs*
ABL.	*nōbīs*	*vōbīs*
GEN.	*nostrum, nostrī*	*vestrum, vestrī*

1/2 nom. These are the original acc. forms.

1/2 acc. These (also 2 pl. Pael. *uus*) continue long-vowel versions of the enclitic forms, cf. Ved. *naḥ, vaḥ*. Problematic, however, is Fal. **ves** (see Vine 1993: 179; Katz 1998: 69; Bakkum 2009: 150−151).

1/2 dat./abl. OLat. NOBEIS, VOBEIS; these reflect a complex Italic innovation (see Meiser 1998: 158−159 and Weiss 2011: 330 for details).

1/2 gen. OLat. *vostrum*; the two forms are functionally distinct (*-um* mainly for partitive use, *-ī* mainly for objective gen.); as in the sg. (and refl.), these are derived from the corresponding possessive adjectives (4.5.2), *-um* from gen. pl. and *-ī* from gen. sg. (In Plautus and Terence, masc. *nostrōrum*/*vostrōrum* and fem. *nostrārum*/*vostrārum* are also used as gen. pl. pronominal forms.)

4.5.2. For the possessive pronouns (i.e., adjectives based on pronominal stems), the sg. and pl. have distinct formations.

The 1/2 sg. forms reflect thematizations of old pronominal forms: enclitic gen. /dat. **mei* (beside **moi*, cf. Gk. μοι) → **mei̯os* > Lat. *meus*, *-a*, *-um* (but voc. *mī* from unthematized enclitic **moi* or **mei*); old orthotonic gen. **téu̯e* (cf. Ved. *táva*) → **teu̯o-* (cf. Hom. τε[ϝ]ός) > Ital. **tou̯o-* > U. *touer*, O. **tuvai**, Lat. *tuus* (with weakened initial vowel). Similarly refl. **seu̯o-* (Hom. ἑ[ϝ]ός) > Ital. **sou̯o-* > OLat. SOVEIS, O. **súvad**, SPi. **súaís** (again with Lat. *suus* having undergone a vowel-weakening in unstressed positions; but see Weiss 2011: 334 n. 25 for an alternative explanation). The inherited version **su̯o-* (cf. Ved. *svá-*, Hom. [ϝ]ός) is also marginally attested in OLat. *sīs* 'suīs' (Ennius, Lucretius), *sam* 'suam' (Paulus ex Festo).

In the 1/2 pl. forms, the enclitic forms (comparable to Ved. *naḥ*, *vaḥ*, cf. 4.5.1) were suffixed with oppositional **-tero-* (cf. 2.2.1 and Gk. ἡμέτερος 'our', ὑμέτερος 'your [pl.]'), hence Pr.-Ital. **nostero-* (> Lat. *noster*, *nostra*, *nostrum*) and **u̯estero-* (cf. U. *uestra*, as well as Fal. **ves** above) → OLat. *voster* (after *noster*) > Class. *vester* by regular sound change. (Oppositional **-tero-* also in *[ne]uter*, 4.3−4.4)

5. Numerals

The study of numerals has as much to do with lexicon as morphology, and involves many special developments. The following sections therefore focus selectively on the morphological features of numerals in Italic, again (as with pronouns) with only limited comparative material. (For details, see Coleman 1992 and handbook treatments like Ernout 1953: 104−112; Leumann 1977: 484−495; Meiser 1998: 170−177; Weiss 2011: 364−376. For recent discussion of Italic numeral forms, including many that cannot be included here, see Prósper 2014−15.)

5.1. Cardinal numbers

5.1.1. '1' through '10'

In PIE, the numerals '1' through '4' were fully declined, with '5' through '10' indeclinable. Italic retains inflected forms for '1', '2', and '3' (with inflectional relics for '4'):

'1': PIE **(h₁)oi-no-*, perhaps originally 'sole, unique' (also used in Celtic, Germanic, Balto-Slavic, and marginally in Greek; Dunkel 2014: 2.588−589) > Lat. *ūnus*, *-a*, *-um* (cf. 4.4 on inflection). PIE **sem-*, used as the cardinal numeral '1' in some traditions

(Greek, Armenian, Tocharian), appears in Latin in adverbial usage and in derived adjectives (combined with other elements), as in forms like *semel* 'once', *singulī* 'one each/ at a time'; but relics of the cardinal usage may survive in univerbated expressions, such as *mīlle* 'one thousand' (5.1.2 below), OLat. *simītū* 'at the same time' (< pre-Lat. *sem'[e] eitū[d]* 'at one go'; Vine forthcoming), and possibly *semper* (Dunkel 2014: 2.673).

'2': Lat. nom. masc. and neut. *duo*, fem. *duae* (with direct and indirect survival of PIE dual inflection in the nom. forms, and *duo* by iambic shortening from earlier **duō*; cf. Ved. *dváu/dvā́*, Gk. δύω, δύο, etc.). The remaining Lat. forms (mostly remade on the basis of thematic plural inflection, apart from athematic dat./abl. pl.) are acc. masc. *duōs*, fem. *duās*, neut. *duo*; dat./abl. masc./neut. *duōbus*, fem. *duābus*; gen. masc./neut. *duōrum*, fem. *duārum* (but OLat. *duom*, *duum*, preserved in the technical term *duomvir*, *duumvir* 'member of a board of two'). Sabellic forms are attested in Umbrian, which shows no trace of dual inflection even in the nom., and has remade the inflection entirely after thematic plurals: nom. masc. *dur* (with regular *o*-stem ending **-ōs* [1.1.3]); further acc. **tuf** (though possibly feminine, see Untermann 2000: 193), dat./abl. **tuves**/*duir*, acc. neut. **tuva**.

'3': PIE masc. **tréi̯es* > Lat. masc./fem. *trēs*, neut. **trih₂* → Lat. *tria* (remodeled from expected **trī*, cf. 5.1.2 on '30'), inflected as an *i*-stem: cf. gen. pl. *trium*. (Cf. O. nom. masc./fem. **trís**, U. acc. masc./fem. **trif**, nom./acc. neut **triia**, etc.). (The PIE feminine **t[r]i-sr-és* does not survive in Italic.)

'4' through '10' are indeclinable: Lat. *quattuor* '4' (O. **pettiur**; but cf. neut. pl. *petiro-* with postposition [5.3.2], and a trace of inflection may be preserved in the gloss form O. *pitora*, v.l. *petora* [Festus]; see Buck 1928: 138, Prósper 2014−15: 10−12, 35 n. 59), *quīnque* '5', *sex* '6', *septem* '7', *octō* '8', *novem* '9', *decem* '10'. ('5' through '10' are not directly attested in Sabellic, apart from derived forms and compounds, including onomastic usage.)

5.1.2. Cardinals above '10'

'11' through '17' are dvandva compounds consisting of the uninflected unit numeral followed by '10' (like Ved. *dvā́daśa*, Gk. δώδεκα '12', literally 'two-ten'). The combinations have in most cases undergone phonological developments affecting the unit numerals, as well as a special development affecting '10' (in which the vowels in the expected vowel-weakening result /-dikem/ < *decem* have been metathesized); thus, for example, Lat. *undecim* '11', with late Osthoff-shortening in **ūndecim*, from syncopated **oino-dekem*, with dissimilatory *n*-loss from **oinon-dekem*, itself with nasal assimilation from **oinom-dekem*. See the handbooks for details on the other forms, which are *duodecim* '12', *trēdecim* '13' (or *tredecim*; the vowel quantity in the initial syllable is uncertain), *quattuordecim* '14', *quīndecim* '15', *sēdecim* '16', *septemdecim* '17'. The only Sabellic form in this series is U. *desenduf* '12' (inflected; masc. acc. pl.), with a reversal of the Latin pattern (literally 'ten-two').

'18' and '19' use subtractive expressions: *duodēvīgintī* (literally '2 from 20') and *ūndēvīgintī* (literally '1 from 20'). Subtractive numeral expressions are well-attested in Etruscan, which is often thought to be the source of this usage in Latin (see Meiser

1998: 172); but this is disputed, given subtractive formats in Greek, Vedic, Germanic, and elsewhere (see Weiss 2011: 371 with n. 41, 485).

'20', '30', etc.: the decad terms were formed in PIE with the neut. pl. of the unit numeral followed by a form based on '10', probably *-$d\hat{k}omth_2$ (cf. Gk. -κοντα); but the resulting forms have undergone many special developments, especially via contaminations (e.g. influence from adjacent terms) and allegro reductions or lenitions, as is typical for counting systems. Again, see the handbooks for details. Interesting as an inherited term is Lat. *vīgintī* '20' (cf. Ved. *viṃśatí-*, Gk. εἴκοσι, etc.) < *$d\underset{.}{u}i(h_1)$ $d\hat{k}\underset{.}{m}tih_1$ 'two decads'. This should have led to Lat. †*vīcentī*; the attested form shows a vowel-harmonic assimilation (/ī ... e/ > /ī ... i/) and an allegro lenition of the intervocalic voiceless stop. The other Lat. terms are *trīgintā* '30' (with *trī-* perhaps preserving the expected outcome of PIE neut. *$trih_2$ '3', cf. 5.1.1), *quadrāgintā* '40', *quīnquāgintā* '50', *sexāgintā* '60', *septuāgintā* '70', *octōgintā* '80', *nōnāgintā* '90'. Note (among many other details) the spread of a "connecting vowel" /-ā-/ from *quadrāgintā* to all the other decads except '80'.

'100' and the hundreds: Lat. *centum* '100' < PIE *$d\hat{k}\underset{.}{m}tóm$ (cf. Ved. *śatám*, Gk. ἑκατόν, etc.). (A trace of the Sabellic version *$kantom$ may survive in the onomastic form CANTOVIO, in an OLat. inscription in Marsian territory.) The hundreds are formed with the unit numbers as first members of compounds, with second member *-centī* (for '200', '300', '600') and *-gentī* (for the rest) inflected as 1st/2nd declension adjectives (thus *-centī*, *-centae*, *-centa* etc.); the forms, which again show many special features, are *ducentī* '200', *trecentī* '300', *quadringentī* '400', *quīngentī* '500', *sescentī* '600', *septingentī* '700', *octingentī* '800', *nōngentī* '900'. (In an alternate OLat. usage, the neut. sg. form of the number accompanies a genitive of the term being counted.)

'1000': Lat. *mīlle* is a sg. based on univerbated *$smih_2$ $\hat{g}^heslih_2$ 'one thousand', whence pl. *mīlia* (cf. Ved. *sahásra-* < *$s\underset{.}{m}$-$\hat{g}^heslo-$ and, with a derivative of the same *$\hat{g}^heslo-$, Gk. [Ion.] χείλιοι).

5.2. Ordinal numbers

The ordinals are inflected as 1st/2nd declension adjectives. (The lower ordinals through '10th', and especially '5th' through '10th', are prominent in onomastic usage.)

5.2.1. '1st' through '10th'

As in many IE traditions, '1st' and '2nd' are unrelated to cardinal '1' and '2': Lat. *prīmus* '1st' (Pael. *Prisma*, woman's name), originally the superlative (< *pri-$ismo-$) of the adverb OLat. *pri* 'prae' (Festus), cf. comparative *prior* 'earlier, former'; different formations (though based on related adverbial roots and with a different superlative suffix) in Fal. **pramo** (< *$p\underset{.}{r}h_2$-$mo-$) and U. *promom* (< *pro-$mo-$ [3.1]). Lat. *secundus* '2nd' (literally 'following') is originally the gerund (7.3.1.4) of *sequor* 'follow'.

'3rd': Lat. *tertius* (U. *tertim*) < *tri-$ti\underset{.}{i}o-$ (cf. Av. *θritiia-*, MW *trydyd*), one of several versions in other traditions (e.g. *tri-$to-$ in Gk. τρίτος, *$t\underset{.}{r}$-$t-$ in Ved. *t\underset{.}{r}tī́ya-*, etc.).

'4th', '5th', '6th': These are formed with a suffix *-to-. '4th': Lat. *quārtus* (with complex and partly unexplained developments from *kʷatu̯r-to-* vel sim.; see recently Prósper 2014−2015: 7−10), cf. Sabellic *peturto-* (in the name PETVRTIVS) < *kʷetur-to-* (cf. Ved. *caturthá-*). '5th': Lat. *quīntus* (cf. Gk. πέμπτος, OHG *fimfto* etc.) (see recently Prósper 2014−2015: 24−26 on complex phonological issues raised by the Latin form), cf. O. *pomtis* '5 times' and onomastic forms like πομπτιεσ (gentilicium). '6th': Lat. *sextus* (cf. Gk. ἕκτος, Li. *šẽštas* etc.), cf. U. **sestentasiaru** 'bi-monthly' (i.e. in cycles of one-sixth of a year), with a basis in this ordinal form.

'7th' through '10th': These adjectives are derived by thematizing the cardinals with a suffix *-o-. '7th': Lat. *septimus* (cf. Ved. *saptamá-*), Paleo-U. **setums** 'Septimus'. '8th': Lat. *octāvus*, cf. O. **úhtavis** 'Octavius' (with a development *-ō- > /-ā-/). '9th': Lat. *nōnus* (< pre-Lat. *nou̯en-o-*, with the original final dental nasal; cardinal *novem* with *-m* after *decem*), cf. Ved. *navamá-* (with *-m-* after *daśamá-* '10th'). '10th': Lat. *decimus* (O. δεκμας).

5.2.2. '11th' through '19th'

'11th' and '12th': based on the cardinals and *decimus* '10th', i.e. *undecimus*, *duodecimus*.

'13th' through '17th': both the unit and the decimal are declined as ordinals, thus *tertius decimus* '13th', etc.

'18th' and '19th': with the subtractive pattern as in the cardinals (cf. also '20th' below), i.e. *duodēvīcēsimus* and *undēvīcēsimus*.

5.2.3. '20th' through '100th' (and higher)

'20th': *vīcē(n)simus* (VICENSVMAM) < *u̯īkm̥t-tm̥mo-*, serving as model for the rest, e.g. *trīcē(n)simus* '30th', *quadrāgē(n)simus* '40th', *septuāgē(n)simus* '70th' (cf. the decad terms in 5.1.2) and *centē(n)simus* '100th'. The same pattern is used for ordinals based on the cardinal terms for 'hundreds' (5.1.2), thus *ducentē(n)simus* '200th', *quīngentē(n)simus* '500th', etc., up to *mīllē(n)simus* '1,000th' (based on *mīlle* '1000').

5.3. Other number forms

There are many isolated forms derived from (or related to) numerals, which cannot be treated here; already mentioned above were derivatives of *sem-* (5.1.1), to which can be added the first-compound-member term for 'one-half', i.e. Lat. *sēmi-* (cf. Gk. ἡμι-), based on the loc. sg. of the root noun *sem-* (Dunkel 2014: 2.679). Note further, for example, various forms based on *(h₁)oi-no-* '1' itself: Lat. *ūnicus* 'the one (and only)' (cf. Go. *ainahs** 'only', similarly [but with *e*-grade in the root] OCS *inokŭ* 'monk', and with similar suffixation Ved. *ekaká-* 'alone'), and the pronominal adjectives *ūllus* 'anyone' (< *oinelo-*) and *nūllus* 'no one' (< *ne-oinelo-*) (4.4), as well as the negative particle *nōn*, OLat. *noenum* (< *ne-oinom*; differently Dunkel 2014: 2.533); and with

different primary suffixation in *-ko- (like Ved. eka-) as well as different secondary suffixation, U. ecla 'every' (< *eiko-lo-), **ekvi** 'one (time?)' (< *eiko-ṷio-). There are, however, several types of morphological behavior connected with numerals that can conveniently be sketched here (although some of this material belongs to "derivational morphology").

5.3.1. First compound members

Apart from predictable stem-forms based on cardinals (such as *[h₁]oi-no- > OLat. oino-, Class. ūni- '1-', quīnqu-/quīnc- '5-', or pre-consonantal sē- '6' with regular phonological reduction of /seks-C/), the following are noteworthy:

'2-': PIE *dṷi- (cf. Ved. dvi-, Gk. δ[ϝ]ι-) > OLat. dvi- (Festus), Class. bi- (Lat. gloss forms in di- [diennium 'period of two years' etc.] may be Grecisms); the vowel length in some forms is regular via contraction (e.g. bīmus 'two years old' < *dṷi-him-o- *'having two winters'), but must be analogical in bīduum 'period of two days' (second member *-diṷom), although the source is uncertain. A form du- is also used, e.g. duplex 'twofold' (U. **tuplak** 'two-fold [cloth]'), perhaps influenced by the cardinal (cf. also ducentum/ducentī '200'), but see Weiss (2011: 367) for a possible phonological explanation.

'3-': PIE *tri- (cf. Ved. tri-, Gk. τρι-) > Lat. tri-, but ter- (cf. tertius '3ʳᵈ', ter '3 times') spreads in Imperial Lat.: trigeminus 'triplet, threefold' (Plautus+) but tergeminus (ps.-Tibullus+); also trē- and (with secondary shortening) tre- in some numerals (see 5.1.2 on '13', '300') < trēs '3'.

'4-': PIE *kʷₔtru- (cf. *kʷetru- in Av. caθru-, Gaul. Petru-) > Lat. quadru- (with irregular voicing of the *-t-, as in other forms: quadrāgintā '40', quadrāre 'to square') and quadri-; most of the attested quadru- forms precede a labial (e.g. quadrupēs '4-footed'), so the /u/ is ambiguous and could reflect *u, *o, or *i; differently U. peturpursus '4-footed', based on the cardinal (like Ved. catur-).

'7-', '8-', '10-', '100-': In addition to septem-, also Septi- (in the ancient topographical term Septimontium) and septu- before vowels (septuennis '7 years old/long'), perhaps analogical to quadri-/quadru- (but see Meiser 1998: 172 for a phonological explanation); similarly, in addition to Octō- (Octōber) also octi-/octu- (octipēs '8-footed'), perhaps from shortened *octŏ-; and besides centum- also centi- (Horace+). Note also the derivational basis *deku- '10' required by some forms in both Latin (decuria 'group of 10 men') and Sabellic (O. **dekkviarím**, U. **tekvias**, of uncertain meaning but probably related to '10'), cf. Prósper (2014−2015: 35 n. 59).

5.3.2. Multiplicative forms

'Once': The background of Lat. semel (apart from its basis in *sem- [5.1.1]) is controversial; see Meiser (1998: 176) and Dunkel (2014: 2.491).

'Twice', '3 times', '4 times': Following an inherited pattern, a suffix *-s (Dunkel 2014: 1.169) is added to the compositional form of the cardinal, thus Lat. bis 'twice' < *dṷi-s (cf. Ved. dvíḥ, Gk. δ[ϝ]ίς, OHG zwir), ter 'three times' < *tri-s (cf. Ved. tríḥ, Gk. τρίς), quater '4 times' < pre-Lat. *quatrus (cf. Av. caθruš). O. pomtis '5 times', based

on the ordinal, has apparently extracted a suffix /-is/ from *du̯i-s and *tri-s. (But a different strategy in U. **triiuper** '3 times', O. *petiropert* '4 times', via a postposition *-pert* with neut. pl., literally 'up to'; Untermann 2000: 545−546 s. v. *pert.*)

'5 times' etc. in Latin: Cardinal plus a suffix *-iē(n)s* (*quīnquiē[n]s* '5 times' etc., also with shortened form *centiē[n]s* '100 times', cf. *centi-* [5.3.1], and haplological shortening in other forms, e.g. *vīciē[n]s* '20 times' for †*vīcentiē[n]s*); the formation arises from a false segmentation of *totiēns* 'so many times', *quotiēns* 'how many times?' < *toti* 'so many' (> Lat. *tot*), **k*ʷoti* 'how many?' (> Lat. *quot*, cf. Ved. *káti*) plus a suffix *-ent-*, as in Ved. *íy-ant-* 'so great', *kíy-ant-* 'how great?'.

5.3.3. Distributive forms

Apart from the isolated *singulī* 'one each/at a time' based on *sem-* (5.1.1), a series of so-called distributive adjectives ('two each' etc., inflected as 1st and 2nd declension plural adjectives) was originally made by suffixing *-no-* to the multiplicative adverbs, thus *du̯is-no-* > *bīnī* 'two each', *tris-no-* > *ternī* 'three each'. But a false segmentation based on such forms yielded a suffix variant *-sno-*, used for 'five each' (*quīnquēnī*) and above, in some cases added to shortened versions of the cardinals (e.g. *dēnī* < *dek-sno-*, cf. *dec-iē[n]s* '10 times'). See also Weiss (2011: 375−376) on homophonic collective numeral adjectives, which may have had a different origin.

6. Derivational morphology

Bibliography: extensive treatments of Latin material in Leumann (1977: 273−403) and Weiss (2011: 266−324) (see also the bibliography cited at 2011: 270 n. 20); for Sabellic, note Heidermanns (1996) and (in less detail) Buck (1928: 182−194), as well as Poultney (1959: 84−97) (for Umbrian).

Italic displays a fairly standard profile of primary and secondary derivation, comparable to other early-attested IE languages and branches, such as Indo-Iranian or Greek. Some formations are of course better represented or more productive than others, or have undergone special developments, displaying a characteristic Italic "touch". For example, deverbal or deradical neuter *s*-stems of the inherited (originally proterokinetic) type are well represented (*genus*, gen. *generis* 'birth, race, kind', cf. Ved. *jánas-*, Gk. γένος), but animate (originally amphikinetic) *s*-stems (in Italic almost exclusively masc.) are very well developed, especially as part of a derivational system associated with 2nd-conjugation stative verbs (7.1.1), also encompassing adjectives in *-idus*: *timor* 'fear', gen. *timōris* (/-r-/ < *-s-* via rhotacism) ~ *timeō* 'be afraid' ~ *timidus* 'afraid'.

There is no space for anything like full treatment here; it is possible, however, to sketch some developments that are particularly characteristic of Italic (beyond those already mentioned above, such as Lat. *-iēs/-ia* [1.5], the Italo-Celtic superlative morpheme [2.2.2], etc.).

6.1. Nominal derivation: suffix patterns

The following points concern nominal suffixation − in Italic, as in PIE, the primary modality for derivational morphology.

Original *u*-stem adjectives do not survive as such, but show an extension in -*i*- (thus appearing as "*u̯i*-stem" adjectives, e.g. Lat. *gravis* 'heavy' vs. Ved. *gurú*-, Gk. βαρύς) − in this case, an innovation that may be restricted to Latin (though see Heidermanns 1996: 156−157 for a possible trace in Sabellic). In general, the most characteristic pattern of Italic innovation involves the development of suffix "conglomerates", with a prominent concentration of new abstract and adjective formations, although other types (such as agent nouns) are also represented.

In some cases, the pattern involves athematic material only, as in the "*u̯i*-stems" just mentioned, or the *k*-extended feminine agent nouns in *-*trī-k*- of the type Lat. *genetrīx* 'mother' (vs. the *k*-less "*devī́*-formations" in Ved. *jánitrī*, Gk. γενέτειρα), Marruc. *sacracrix* 'priestess'. In other cases, the suffixal extension involves (plain) thematization of an athematic suffix, as in adjectival forms in -*ācus* (e.g. *merācus* 'undiluted'), perhaps in origin reflecting thematizations of *āk*-stems (themselves well represented: *audāx* 'bold' and many more in Latin; with *audāx* probably SPi. **aúdaqum**, cf. Fortson 2016: 20−23); still more frequent is thematization via a complex thematic formant, thus in addition to *men*-stems (originally deverbal nouns, well represented as such: e.g. *sēmen* 'seed', cf. *serō* 'sow'), there are deverbal nouns in -*mentum* (*alimentum* 'nourishment', cf. *alō* 'nourish'; already VOL ɪOVXMENTA in the Forum Inscription, Class. *iūmenta* 'yoked teams [of animals]', cf. *iungō* 'join, yoke') < *-*mn̥-to*-, perhaps originally substantivized possessive derivatives in *-*to*- based on *men*-stems (Weiss 2011: 313−314, with comparative material). Similarly, new adjectival formations with PIE *-*i̯o*- (frequently substantivized) added to athematic bases are typical: e.g. *mōn*-stems → -*mōnium*/-*mōnia* (*alimōnium*/-*ia* 'nourishment'), pres. participial stems in -*ent*- (7.3.1.1) → -*entio*- (*silentium* 'silence', cf. *sileō* 'be silent', ptcple. *silēns*), etc.

A highly characteristic subtype of the general case just mentioned (athematic base plus complex thematic suffix) appears in so-called "deinstrumental" adjectival formations: thus *astū* 'cleverly' (*u*-stem instr. sg. *-*u-h₁*, i.e. 'with cleverness') → *astūtus* 'clever', similarly -*ītus* adjectives based on *i*-stem instr. sg. *-*i-h₁* (*aurītus* 'having ears', cf. *auris* 'ear'), -*ōtus* adjectives based on *o*-stem instr. sg. *-*o-h₁* (*aegrōtus* 'sick', cf. *aegrum* 'distress'); likewise, with instr. sg. plus *-*no*-, adjectival suffix conglomerates -*īnus*, -*ūnus*, -*ōnus* etc. (cf. Weiss 2011: 290, 293, and further 7.3.1.3 on *futūrus*). In some such forms, however, the underlying derivational process may be different: thus some -*īnus* adjectives may go back to thematic gen. sg. noun plus *-*no*- (*vīcīnus* 'neighboring', cf. *vīcus* 'district'; Weiss 2011: 288). A formation of this general type that became productive (though not exclusively based on instr. sg. forms) is -*ānus* (also well represented in Sabellic), originally based on *ā*-stems (place name *Abella* → adj. *Abellānus*, O. dat. sg. **abellanúí**) but extended to other stem types (e.g. *i*-stem *urbs* 'city' → *urbānus* 'urban'). Some similar thematic formations that became integrated into the verbal system are treated below (e.g. verbal adjectives in *-*tó*-, as in Lat. -*āto*-, -*ito*- [< *-*eto*-], -*īto*-, 7.3.1.2).

Some complex athematic formations are characteristic of Italic but also have extra-Italic comparanda, even if questions remain about their morphological background. Thus the frequent abstract suffix -*tāt*- (OLat. *aevitās*, Class. *aetās* 'lifetime', O. acc. sg. **aita-**

tum) has cognates in Indo-Iranian and Greek (see Pike 2011), and the abstract suffix *-tūt-* (Lat. *senectūs* 'old age') has cognates in Celtic and Germanic; their internal structure is uncertain, but may again involve a basis in instrumental forms (Weiss 2011: 304). Though not frequent, the complex *s*-stem suffix **-n-es-* appears in a series of culturally important terms relating to commerce/exchange and social obligation (e.g. *fēnus* 'profit', *mūnus* 'duty, service') and has cognates elsewhere that display a similar semantic profile. In other cases, complex athematic suffix formations are Italic innovations, particularly frequent with secondary *n*-stems, as in the abstracts in *-iō*, gen. *-iōnis* (Lat. *legiō* 'legion', O. acc. sg. **leginum**) and (much more productively, based on verbal adjectives in *-tus* and *-sus* [7.3.1.2]) *-tiō* and *-siō* (Lat. *nātiō* 'birth; race, nation', U. abl. sg. **natine**; in this and the preceding Oscan form, note the discrepancy between the Latin and Sabellic inflectional behavior: Lat. oblique *-iōn-* vs. Sab. *-īn-*), and in a series of complex abstract suffixes with dental or velar preceding the *n*-stem suffix proper, e.g. *-ēdō*, *-īdō*, *-ūdō* and *-tūdō* (gen. *-ēdinis* etc.), *-īgō*, *-āgō*, *-ūgō* (gen. *-īginis* etc.). In one prominent case, a borrowed source has been claimed for a suffix, i.e. (secondary) *-ti-*, *-āti-*, *-īti-* in ethnonyms based on place names (*Saepīnās*, gen. *-ātis* 'inhabitant of Saepinum', O. nom. sg. **saipinaz**), with a possible Etruscan background (see the discussion, with references, by Penney 2009: 92−93); but the pattern is also attested in Celtic and in some native Italic vocabulary (e.g. *quoiātis* [Plautus] 'of what country?' > Class. *cuiās*, cf. *cuius* 'whose'), which may suggest, at least in part, a native background.

Innovations are also found among thematic suffixal material. Thus Italic inherited a diminutive formation in **-elo-* (OFal. **arcentelom** 'a little silver') > Lat. *-ulo-*, e.g. *catulus* 'puppy' = U. **katel** (see Leumann 1977: 309 for possible comparative material); but the Italic diminutive conglomerate **-kelo-* (> Lat. *-culo-*, cf. U. **struhçla** 'offering cake', with <ç> the palatalization result of **k* before the **e* was syncopated) is an innovation, based on the productive suffix **-ko-*, in Italic terms (Fruyt 1986), reflecting PIE **-ko-* and **-k̂o-* and with interesting correspondences to Indo-Iranian **-ka-* (Jamison 2009). In other cases, however, the background of a complex thematic suffix is controversial, as in the highly characteristic Lat. suffixes *-ōsus* and *-ulentus* (forming possessive adjectives); see Weiss (2011: 296−297) for details.

6.2. Compounds

The repeated complaints of Lucretius about the poverty of Latin expression (*De Rerum Natura* 1.832, 1.136−139, 3.260), especially in technical vocabulary, probably referred at least partly (if not largely) to the less extensive use of compounding in Latin, as compared with Greek (Kenney 1971: 110 ad 3.260). But compound formations of all types represented otherwise in Sanskrit and Greek (and generally reconstructed for PIE) are not rare in Italic (cf. on *agricola*, 1.2), even if less prominent than in those languages. In addition to handbook treatments like Leumann (1977: 383−403) and Weiss (2011: 262−265), see the bibliography cited at (Weiss 2011: 262 n. 14), to which can be added Moussy (2005), Lindner and Oniga (2005), and (for Sabellic and Proto-Italic) Heidermanns (1996: 307−320 and 2002).

6.3. Verbal derivation

The pattern *timor/timeō/timidus* (6) straddles both nominal and verbal derivation. But some regular processes of verbal derivation are also found. These cannot be surveyed in detail, but prominent examples include (i) factitive 1st-conjugation verbs based on adjectives (*sānus* 'healthy' → *sānāre* 'heal, restore to health', *novus* 'new' → *renovāre* 'renew'), an inherited pattern (cf. Hitt. *newahh-* 'renew' and 7.1.1 on athematic factitives in *-eh₂-); (ii) repetitive and frequentative verbs, synchronically associated with the perfect passive participle (see Weiss 2011: 401−402 for details).

7. Verbs

Bibliography: important monograph-length treatments (mainly on Latin) include Meiser (2003; cf. Schrijver 2006), de Melo (2007), Garnier (2010), Seldeslachts (2001); for Sabellic: García Castillero (2000).

The major Italic innovation was the reorganization of the PIE present, aorist, and perfect tense/aspect categories (as well as secondary categories like iterative-causative, stative, and desiderative) into a two-part (mainly) tense-based system, opposing for each verb an *infectum* or "present system" (7.1) (with four "conjugation classes" and all forms based on a "present stem") to a *perfectum* or "perfect system" (7.2) (with all forms based on a "perfect stem"). The Italic present system is the repository of the PIE present types (including secondary categories: iterative-causative, etc.), while the perfect system reflects a merger between the PIE aorist and perfect. The Latin and Sabellic present systems largely coincide, but there are marked divergences between the Latin and Sabellic perfect systems. Finite verbs are inflected for singular and plural, the dual having been lost (apart from possible traces in some synchronic plural endings).

For finite forms: in the indicative, the present system has three tenses (present, imperfect, and future) and the perfect system has three tenses (perfect, pluperfect, and future perfect); in the subjunctive, the present system makes a present and an imperfect subjunctive, while the perfect system makes a perfect and a pluperfect subjunctive. (The PIE optative has been lost as a category, but survives in some synchronic subjunctives.) The present imperative and the future imperative are based on the present stem. Indicative and subjunctive have both active and passive forms (with the passive continuing the PIE "oppositional middle"); but some verbs (so-called "deponents"; see Flobert 1975) have only passive forms, with non-passive meaning (continuing PIE *media tantum* verbs). In a few cases, so-called "semi-deponent" verbs have active inflection in the present system but passive inflection in the perfect system. (For an overview of PIE tense, aspect, voice, and mood and their development in Italic, see Weiss 2011: 377−384.)

The non-finite forms (infinitives, participles, verbal nouns) are treated separately (7.3).

7.1. Present system

7.1.1. Regular verbs

Each of the four regular conjugation classes has a characteristic stem vowel, as follows: I -$\bar{a}$-; II -$\bar{e}$-; III -e- (but in Latin normally -i-, as a result of vowel-weakening), including a "III-iō" subtype (with some forms similar to IV); IV -$\bar{\imath}$-. To some extent, the reorganization into these classes was driven by purely phonological factors, especially (for I and II) the loss of intervocalic yod and subsequent vowel contractions. Thus for I, forms based on PIE *-eh_2- (e.g. athematic verbs to roots ending in *...eh_2-, athematic factitives in *-eh_2-) or *-eh_2-ie/o- (e.g. denominatives to eh_2-stems or thematized versions of the preceding) naturally merged into a new "$\bar{a}$-conjugation"; for II, the PIE iterative-causatives (in *-$\acute{e}ie/o$-, whence *-ee- and contraction to *-$\bar{e}$-) and statives (in *-$\acute{e}h_1$- and *-$\acute{e}h_1$-ie/o-, whence *-$\bar{e}$- for the first and *-$\bar{e}ie/o$- > *-$\bar{e}e$- > *-$\bar{e}$- for the second) naturally merged into a new "$\bar{e}$-conjugation", joined by PIE athematic (or thematized) verbs with roots ending in *...eh_1-. Class III continues PIE plain thematic verbs; and classes III-iō and IV both continue PIE *ie/o-verbs, with a secondary differentiation that is again phonologically driven, in this case by syncope processes. (For those details, see Weiss 2011: 122. An alternative view, however, considers III-iō verbs to descend from an inherited class of athematic i-presents; see Schrijver 2003, de Vaan 2011.) Some monograph-length works on the individual conjugation classes are available: I Steinbauer (1989; with special attention to denominatives); II Hocquard (1981), Vernet i Pons (2008); III Bock (2008); III-io and IV: Martzloff (2006); and for primary presents in Sabellic, see García Castillero (2000).

7.1.1.1. Sample present active indicative paradigms for Latin verbs belonging to each of the conjugation classes are as follows (I *amō* 'love', II *doceō* 'teach', III *agō* 'lead', III-iō *capiō* 'take', IV *audiō* 'hear'):

	SINGULAR				
	I	II	III	III-iō	IV
1	*amō*	*doceō*	*agō*	*capiō*	*audiō*
2	*amās*	*docēs*	*agis*	*capis*	*audīs*
3	*amat*	*docet*	*agit*	*capit*	*audit*

	PLURAL				
	I	II	III	III-iō	IV
1	*amāmus*	*docēmus*	*agimus*	*capimus*	*audīmus*
2	*amātis*	*docētis*	*agitis*	*capitis*	*audītis*
3	*amant*	*docent*	*agunt*	*capiunt*	*audiunt*

All of these forms continue PIE thematic inflectional endings. The most salient innovation is the loss by apocope of the "hic et nunc" -*i* on the 2 sg., 3 sg., and 3 pl. primary

thematic endings (PIE *-si, *-ti, *-nti), although it is widely assumed (see Sarullo 2014: 210−215) that VOL *tremonti* 'they tremble', in a fragment from the extremely archaic Carmen Saliare, preserves the unapocopated 3 pl. ending (cf. Dor. Gk. -οντι, Ved. -*anti*). (The thematic endings have been adopted even by regular verbs with a background in athematic categories, e.g. nasal presents: *linquunt* 'they leave' [cf. Ved. *riñcánti* < *li-n-k^w-énti] with *-o-nti*, not †*linquent*.) The most serious indeterminacy concerns the 2 pl. ending, where Lat. *-tis* (< *-tes*) and SPi. **-tas** (in **videtas** 'you see') may continue old dual endings (Weiss 2011: 386; Clackson 2015: 17−18).

In general, and apart from purely phonological differences (e.g. non-contraction of 1 sg. /-ā-ō/ < *-āi̯ō* in 1st-conjugation forms [e.g. U. *subocau* 'I invoke'], or final stop loss, as is characteristic of Umbrian [e.g. U. *habe* 'he has']), the Sabellic forms match those of Latin, insofar as this can be judged from the attestations (1 pl. pres. indic. forms are lacking, and most second person forms are imperatives). The major exception is the 3 pl., with /-ent/ (from the original athematic ending *-ent[i]*) instead of thematic *-o-nt(i)*; cf. O. **fiiet** (with suppression of the nasal) ~ Lat. *fīunt* 'they become'. A representative selection of additional forms (beyond those just cited) includes: I 3 sg. O. **faamat** 'he declares', SPi. **qupat** 'he lies' (: Lat. *cubat*, Fal. **cupat**), 3 pl. SPi. **persukant** 'they declare (?)'; II 1 sg. SPi. **kduíú** 'I am famed' (: Lat. *clueō*), 3 sg. O. **kasit** 'it is fitting' (: Lat. *caret* 'it is lacking'); III 1 sg. U. **sestu** 'I set up' (: Lat. *sistō*), 2 sg. U. **seste** 'you set up' (: Lat. *sistis*, with final *s*-loss in Umbrian), 3 sg. Vest. *didet* 'he gives'; III-iō: see 7.1.1.4 for some non-indicative forms. As these examples indicate, the Sab. present stem formations for individual verbs generally correspond to those of Latin (and Faliscan); but a notable exception is 'give', regularly a 3rd-conjugation reduplicated verb in Sab., cf. Vest. *didet* above (as if Lat. †*didō*, *didere*) vs. Lat. *dō*, *dare* (7.1.2).

7.1.1.2. The PIE imperfect indicative (with augment and secondary endings) does not survive in Italic (but see 7.2.1 [item (iv) in the paragraph on "long-vowel perfects"] for a possible exception), where the imperfect of regular verbs has an innovative formation consisting, synchronically, of the present stem vowel followed by a formant *-bā-* (thus Lat. 1 sg. *-bam* [note the secondary active ending *-m*], 2 sg. *-bās*, 3 sg. *-bat*, etc., with regular pre-desinential shortening in some forms). The stem vowels for classes I and II, and partly for IV, correspond to the present stem vowels (thus I *laudābam*, II *monēbam*, IV [mainly OLat.] *audībam*), but III is unexpected, i.e. *agēbam* (likewise III-io *capiēbam*, IV [Class. Lat.] *audiēbam*), not †*agibam* < *agĕbam* (cf. pres. infin. *agere*). O. **fufans** may be an athematic formation of the same type ('they were'), but has also been interpreted as a pluperfect, at least historically (Meiser 1998: 197−198). The origin of the formation is disputed, beyond the widely accepted assumption that it involves a univerbation of a nominal form (such as a present participle or the instrumental sg. of a root noun) and the verb *b^{h}uH-* 'be(come)', followed by a tense/mood marker "-ā-" (< *-eh$_2$-*), found elsewhere in the Latin verb system (see below on imperfect *erā-* [7.1.2] and the pluperfect [7.2.3]), as well as in other branches (Jasanoff 1978: 121−122, 1983). For a survey of alternative approaches, with bibliography, see Willi (2016: 89 n. 57).

7.1.1.3. The Latin/Faliscan and Sabellic future formations (both innovative, given the absence of a category "future" in PIE) diverge. For the regular Latin future, classes I and II show a formation similar to the imperfect, with a *b*-suffix that again involves a univerbation with *-b^{h}uH-*, here specifically in the form *-b^{h}uH-e/o-* (subjunctive of the

root aorist, cf. 7.1.1.4 and 7.2 on other aorist-based forms), whence thematic-appearing forms of the type I 1 sg. *-ā-bō*, 2 sg. *-ā-bis*, II 3 sg. *-ē-bit*, 3 pl. *-ē-bunt*, etc., < Ital. **-ā-φu̯-e- < *-ā-φuu̯-e-* < (Transponat) **-eh₂-bʰuH-e-*, etc. Faliscan forms of this type are attested in **pafo/pipafo** 'I will drink' and **carefo** 'I will lack'. Classes III/III-i̯ō and IV, in contrast, continue the PIE thematic subjunctive, with **-ē-* generalized (III 2 sg. *agēs*, III-i̯ō 1 pl. *capiēmus*, IV 3 pl. *audient*, etc.) and with a substitution of *-am* endings in 1 sg. forms (*agam*, *capiam* etc.). In OLat., however, IV futures in *-ībō* (analogical to the I and II pattern) are not uncommon.

Sabellic shows an *s*-future (cf. the PIE desiderative and the *s*-futures of Greek, Old Irish, and other IE languages, although the Italic futures are based on present stems, not the root itself): thus e.g. O. **fust** 'it will be', *deiuast* 'he will swear', U. **ferest** 'he will carry'. The (mainly) OLat. *s(s)*-formation *faxō, amassō* is either the subjunctive of such an *s*-formation (Weiss 2011: 419−420) or, according to another view (e.g. de Melo 2007), continues the subjunctive of an *s*-aorist (see Weiss 2011: 420 n. 16 for discussion). Finally, some relics of the PIE desiderative have entered the present system: *quaesō* 'seek' (< pre-Lat. **kwais-s-e/o-*, vs. **kwais-e/o- > quaerō* 'ask'), *vīsō* 'visit' (< **weid-s-e/o-*); and the particle *dumtaxat* 'provided that' is based on a subjunctive form (related to *tangō* 'touch') with a similar background.

7.1.1.4. The present subjunctive of regular verbs displays two formants synchronically, *-ē-* for the 1ˢᵗ conjugation and *-ā-* for the rest. As in the imperfect indicative, endings corresponding to the PIE secondary endings are used, hence with 1 sg. *-m* in Latin (and probably likewise in U. *aseriaia* 'I may observe', with *m*-loss). Thus for the Lat. verbs in 7.1.1.1: I *amem, amēs, amet* etc. (with contraction of **amā-ē-* to *amē-*), vs. II *doceam, doceās, doceat* etc., III *agam, agās, agat* etc., III-i̯ō *capiam, capiās, capiat* etc., IV *audiam, audiās, audiat* etc. The Sabellic behavior is the same (apart from the lack of contraction in **-ā-ē-*; cf. also 7.2.4 on the secondary ending *-ens*): I 3 sg. O. *deiuaid* 'let him swear', U. **kuraia** 'he shall take care of' (< **-ā-ē-ā-d*, i.e. in Umbrian with recharacterization by analogy with the subjunctives of the other classes); II 3 sg. U. **habia** 'he shall have' (: Lat. *habeat*), 3 pl. O. **putiians** 'may they be able' (as if Lat. †*poteant* to a verb †*potēre*, cf. Late Lat. *potēre > Ital. potere* [Väänänen 1981: 136] vs. OLat. *potis sum > Class. possum*); III 3 sg. Pael. *dida* 'may he give', 3 pl. O. *deicans* 'they may say' (: Lat. *dīcant*); III-i̯ō 3 sg. U. **façia**, O. **fakiad** 'he shall do/make' (: Lat. *faciat*).

The *ē*-subjunctive has two possible sources, namely the long-vowel thematic subjunctive of **-ā-i̯e/o-* verbs (as in the frequent denominatives of this type), with the *ē*-version generalized; and the strong form of the athematic optative suffix (i.e. **-i̯eh₁- > Ital. *-i̯ē-*, with regular *i̯*-loss in Ital. sequences **-āi̯ē-*), appropriate for original athematic stems in *-ā-*, such as factitives in **-eh₂-* (cf. 7.1.1). (There is no trace in Italic of the PIE thematic optative; for the doubtful interpretation of VOL ᴏᴘᴇᴛᴏɪᴛ [Duenos Inscription] in these terms, see Meiser 1998: 201 and Weiss 2011: 417, with references, as well as Tichy 2004 for a more attractive alternative analysis.) The source of the *ā*-subjunctive is more controversial; for a theory based on developments with roots in final **-h₂*, see Meiser (1998: 200−201), and for comparison with the Celtic *ā*-subjunctive, see Weiss (2011: 418, 466 n. 8). A further point connected with the *ā*-subjunctive is its appearance in OLat. forms based on historical aorist or perfect stems, rather than present stems: thus OLat. *ēvenat* (i.e. *-ven-ā-*, cf. root aorist forms of **gʷem-* 'come': Ved. *ágan*, Arm. *ekn*,

O. **kúmbened** [7.2.2]) vs. Class. Lat. regular pres. subj. *ēveniat* (based on the present stem of IV *veniō* 'come').

7.1.1.5. Latin and Sabellic share an innovative imperfect subjunctive marker *-s(-)ē- (appended to the present stem, thus surfacing mainly as *-rē-* in Latin owing to rhotacism): e.g. Lat. 2 sg. *amārēs* (cf. pres. infin. *amāre* 'to love'), O. 3 sg. **fusíd** = Lat. *foret* (suppletive imperf. subj. to *sum*, cf. 2 sg. imperf. subj. *essēs*). The origin of the formation is uncertain (see the references at Weiss 2011: 420 n. 20).

7.1.1.6. The oppositional passive forms of regular (and some irregular) verbs, as well as the finite forms of deponent verbs, use a special set of passive endings, descended from the PIE middle endings. As in the primary middle forms of Celtic, Tocharian, and Hittite, the Latin passive endings are characterized by an added *-r* (in all forms except 2 sg. and 2 pl.): thus for *amō* 'love', pres. indic. *amor*, *amāris/-e*, *amātur*, *amāmur*, *amāminī*, *amantur*, and similarly for other present system forms: pres. subj. *amer*, *amēris/-e*, *amētur* etc., imperf. *amābar*, *amābāris/-e*, *amābātur* etc., fut. *amābor*, *amā-beris/-e*, *amābitur* etc., imperf. subj. *amārer*, *amārēris/-e*, *amārētur* etc.; and likewise for the other conjugation classes, with their characteristic stem vowels. (For the alternate 2 sg. endings *-ris* and *-re*: the latter is more common in OLat.; in Class. Lat., *-ris* prevails in indicative forms, *-re* in the rest and in the indicative of deponent verbs.) The historical analysis of these endings is replete with difficulties, and there are marked divergences with Sabellic; only a few salient points can be selected for comment here. (See Meiser 1998: 218−219 and Weiss 2011: 387−391 for details.) The non-*r* forms (2 sg./pl.): For 2 sg., the PIE primary and secondary endings beginning in *-th_2- (with traces in Hittite, Indic, and Old Irish) were replaced by an ending *-so*, cf. 2 sg. active *-s* (similar developments elsewhere, cf. Gk. 2 sg. imperf. mid.-pass. ἐφέρου 'you were carried' < Pr.-Gk. *e-pʰere-ho*, with *-ho* < *-so*); for stems ending in a vowel (as in all regular classes), rhotacism and final vowel weakening produced Lat. *-re.* Early recharacterization by *-s (before weakening of final *-o in *-so) produced an ending *-sos*, whence *-ros with rhotacism and attested *-rus*: this archaism is found a little over a dozen times, mainly in late Republican and early Imperial inscriptions associated with a lower social dialect (Adams 2007: 445−450). A later recharacterization by *-s (i.e. *-re > *-res) produced the alternate form *-ris* in standard varieties of Latin. 2 pl.: there is disagreement as to whether Lat. *-minī* reflects a complex series of developments with starting point in original *-$dʰue$ (see Meiser 1998: 219) or, perhaps more likely (Weiss 2011: 391), a wholesale replacement of the original ending, based on nom. pl. forms of the middle participle in *-mh_1no- (7.3.1.1; e.g. nom. pl. masc. > Pr.-Ital. *-manoi > Lat. *-minī*), whether in a periphrastic construction with *estis* 'you (pl.) are' (as in Greek: e.g. *sequiminī* [*estis*] 'you (pl.) are following' ∼ ἑπόμενοί ἐστε) or in some other construction. For a possible 2 pl. mid. *m-ending in Sabellic, see under 7.1.1.7 below (imperatives).

3 sg./pl. and Lat. vs. Sabellic: Umbrian distinguishes primary 3 sg. *-ter*, 3 pl. *-nter* from secondary 3 pl. *-ntur* (with 3 sg. unattested in this category). In contrast, Oscan shows only 3 sg. *-ter*, 3 pl. *-nter*, while Latin has only 3 sg. *-tur*, 3 pl. *-ntur*. (SPi. **qolofítúr** 'is erected (?)' [Vine 2006] could indicate a pattern of the Latin type.) Umbrian may preserve the Proto-Italic situation (although how this system arose from PIE remains unclear), with different generalizations having occurred in Oscan and Latin (and perhaps South Picene). While the Lat. forms and the Umbrian secondary forms could descend

from PIE 3 sg. mid. *-tor, 3 pl. *-ntor, the forms with *e*-vocalism reflect a formation of the type *-(n)trV (e.g. 3 sg. *-tro, 3 pl. *-ntro), reminiscent of the endings to be reconstructed for Celtic deponent verbs. (See Weiss 2011: 390−391, with reference, and 465 n. 3. Synchronically the Umbrian secondary forms, as well as the South Picene form, could reflect *-(n)tōr; but this could be analogical to 1 sg. *-ōr, see Zair 2014: 378.)

7.1.1.7. The Italic imperative distinguishes a "present imperative" (or "Imperative I") from a "future imperative" (or "Imperative II").

The present imperative has only second person forms; in the active, the 2 sg. imperative uses the bare stem (thus for Lat. regular verbs: I *amā*, II *docē*, III *age*, III-iō *cape*, IV *audī*) − the essential comparandum being III *-e* (the bare thematic vowel) = Gk. *-ε*, Ved. *-a* − while the 2 pl. uses the secondary ending *-te* (I *amāte*, II *docēte*, Fal. **salvete**, etc.), cf. Gk. *-τε*, Ved. *-ta*. (Sabellic imperatives of this kind are attested very rarely: e.g. U. *aserio* 'observe!', a 2 sg. *ā*-conjugation form.) Irregular verbs (i.e., for the most part, historically athematic verbs [7.1.2]) operate the same way: thus sg. *es*, pl. *este* 'be!'; sg. *ī*, pl. *īte* (= Pael. *eite*) 'go!', etc. (The PIE 2 sg. imperative marker *-dʰí* [Gk. ĭθι, Ved. *ihí* 'go!' etc.] does not survive in Italic as such, apart from reanalyzed relics of the type *gʷʰṇ-dʰí* [Ved. *jahí*] 'strike!' > pre-Lat. *fende → Lat. *-fendere* in *dēfendere* 'ward off', *offendere* 'strike'; see Rix 2001: 219 s.v. **gʷʰen-*, n. 4.) For the 2 sg. forms: some simplex III and III-iō verbs use an apocopated form in the Classical language (*dīc* 'say!', *dūc* 'lead!', *fac* 'do!'; but prefixed *addīce*, *addūce*, etc.), with some full forms (*dīce* etc.) attested in OLat. (see Weiss 2011: 422 n. 22 for details). For *fer* 'carry!', however, it is not clear whether this is a truncated thematic form or an athematic relic (cf. again 7.1.2). The discourse particle *em* is traditionally interpreted as a truncated thematic 2 sg. imperative, based on the root of *emō* 'buy', originally 'take'; but it may instead be a root aorist injunctive (thus endingless) < *h₁ém* (Meiser 2003: 62), as in some other relics of this kind: e.g. *-do* in *cedo* 'give [it] here!' < *déh₃*, OLat. ꜰᴠ 'be(come)!' (Carmen Arvale) < *bʰúH.

The 2 sg. passive and deponent pres. imperative uses the 2 sg. middle secondary ending *-so (cf. 7.1.1.6 on the 2 sg. finite pres. passive/deponent alternate form), thus *amāre* 'love!', *sequere* 'follow!', etc. The fragments of the archaic Carmen Saliare may preserve a form *orieso* (= Class. Lat. *orīre* 'arise!'; see Sarullo 2014: 167). The 2 pl. passive/deponent imperative is the same as the finite present form (see 7.1.1.6 on *-minī*).

Unlike the present imperative, the future imperative is very well attested in Sabellic (given the prescriptive nature of some Sabellic texts), and differs in some respects from Latin. The Latin forms (by Classical times mainly restricted to legal formulations and similar contexts) show an ending *-tō*, OLat. -ᴛᴏᴅ, used for both 2 sg. and 3 sg. (cf. Ved. *-tā́t*, Gk. [3 sg.] *-τω*), added to the present stem of regular verbs or to the stem of irregular verbs, and the same formation is frequent in Sabellic: I *amātō*, O. *deiuatud* 'he shall swear'; II Lat. ʟɪᴄᴇᴛᴏᴅ 'it shall be permitted' = O. *licitud*, Fal. **salvetod** (and **salveto** apparently as 3 pl., see Bakkum 2009: 171); III *agitō*, O. *actud* (with syncope), etc.; irreg. *estō* = O. *estud*. Latin has innovated both a 2 pl. in *-tōte* (on the analogy of the finite 2 pl. pres.) and a 3 pl. in *-untō* (on the analogy of the finite 3 pl. pres.): 2 pl. *agitōte*, *estōte* etc., 3 pl. *aguntō*, *suntō* etc. Similarly, Umbrian has innovated a 2/3 pl. form in /-tōtā/, apparently built on a 2 pl. finite ending /-tā/, perhaps historically a dual ending (Clackson 2015: 18, with references): **fututo** 'estote', **habetutu** 'habento'. In the Classical language, Latin passives and deponents use endings 2/3 sg. *-tor* and 3 pl. *-ntor*

(with a passivizing use of *-r* to mark *-tō* and *-ntō*); but OLat. uses the active endings, e.g. *ūtitō*, ᴠᴛᴠɴᴛᴏ (to deponent *ūtor* 'use'). Also found in OLat. (and occasionally in Republican Latin) is a deponent 2/3 sg. imperative in *-minō* (*antestāminō* 'he shall call as witness', XII Tables), analogically formed on 2 pl. *-minī* after the ending of 2/3 sg. *-tō*. An independent counterpart to this development is found in Sabellic: thus U. **persni-mu** 'you/he shall pray' (deponent verb) shows an ending /-mō/, apparently built to an (unattested) 2 pl. passive/deponent ending characterized by *-m-* (cf. Lat. *-minī*); in Oscan, such imperative forms were secondarily "passivized" via *-r* (O. *censamur* 'he shall be counted'). Umbrian also developed a plural version, with a suffix /-mā/ (cf. active /-tā/ above): *persnimumo* 'they shall pray'.

7.1.2. Irregular verbs

These are mainly PIE athematic presents that preserve traces of athematic inflection in at least some parts of the paradigm, while other forms have undergone remodeling (usually based on thematic inflection). Some typical examples:

  $*h_1es$- 'be' (see Rix 2001: 241 s. v.; Ved. 3 sg. *ásti*, 3 pl. *sánti*, etc.)

  2 sg. pres. Lat. *es* < *$*h_1ési$*, regularly < **$*h_1és$-si* (*es[s]* in Plautus < recharacterized *$*essi$*).

  3 sg. pres. Lat. *est*, O. **est**, U. **est** < *$*h_1és$-ti.*

  3 pl. O. **sent**, U. *sent* < *$*h_1s$-énti*, but Lat. ꜱᴏɴᴛ/*sunt*, Fal. **zot** remodeled after thematic 3 pl. forms in *-ont*, Class. *-unt* (cf. 7.1.1.1 on *linquunt* for †*linquent*).

  $*h_1ei$- 'go' (see Rix 2001: 232 s. v.; Ved. 3 sg. *éti*, 3 pl. *yánti*, etc.)

  2 sg. pres. Lat. *īs* < *$*h_1éi$-si.*

  3 sg. pres. Lat. *it* < *$*h_1éi$-ti*, but the full grade has been generalized to the plural: thus e.g. 1 pl. Lat. *īmus* for expected †*imus* (cf. Ved. *imás[i])*); and 1 sg. and 3 pl. show thematized forms (thus 3 pl. *eunt* as if from *$*ei$-ont[i])*, for expected †*ient*, i.e. /i̯ent/, cf. on *sunt*, *linquunt* above).

  For many details concerning these verbs and others (principally 'eat' [Lat. *edō*], 'carry' [Lat. *ferō*], 'give' [Lat. *dō*], 'wish' [Lat. *volō*], 'become, be made' [Lat. *fīō*]), see e.g. Leumann (1977: 521−531), Meiser (1998: 221−224), Weiss (2011: 425−435). In some cases, the historical background is controversial, as with the synchronic "semi-thematic" inflection of Lat. *ferō* 'carry' (see Jasanoff 1998 and 2003: 224−227 for assumptions involving original athematic inflection, vs. Meiser 1998: 224 on forms like Lat. 2 sg. pres. *fers*, 3 sg. *fert* as syncopated allegro-forms, cf. Marrucin. 3 sg. pres. **feret**).

  In a second type of irregularity, "defective verbs" (Weiss 2011: 435−436) present a restricted inflectional profile. Thus e.g. *aiō* 'I say' and its other limited forms (3 sg. pres. *ait*, imperf. *aiēbat* etc.) are restricted to the present system in the Classical language, while e.g. *meminī* 'I remember' has only perfect forms (though with present meaning, cf. 7.2.1).

  In the imperfect indicative, an isolated formation appears in the stem Lat. *erā-* (1 sg. *eram* 'I was', etc.), i.e. *$*h_1es$-* with the bare suffix *-ā-* (PIE *-eh_2-), without preceding *-b-* (< PIE *-b^huH-, cf. 7.1.1.3). Likewise, the future of *sum* (1 sg. *erō*, 2 sg. *eris*, 3 sg. *erit*, etc.) does not follow any of the regular future formations (7.1.1.4), but continues

the inherited pres. subjunctive of *h_1es-, i.e. *$h_1és$-e- (3 sg. *$h_1és$-e-ti, etc., cf. Ved. *ásati*).

   The pres. subjunctive of some irregular verbs is remarkable in preserving traces of the PIE athematic optative; the OLat. paradigm

	SINGULAR	PLURAL
1	*siem*	*sīmus*
2	*siēs*	*sītis*
3	*siet*	*sient*

closely matches that of Gk. opt. εἴην and Ved. opt. *syā́m*, showing both full grade *-ieh_1- and zero grade *-ih_1- of the optative suffix in their original distribution; but the forms are leveled to a stem *sī*- (1 sg. *sim*, 2 sg. *sīs* etc.) in the Classical language, as has also occurred in Umbrian (2 sg. *sir*, 3 sg. **si**, 3 pl. **sis**/*sins*). Similar forms (but always with -*ī*-, from the zero grade stem) appear for 'wish' (*velim* etc.), 'eat' (*edim* etc.), and 'give' (in the alternate stem-form seen in OLat. subjunct. *duim*), as well as in *faxim* and similar *s*-forms based on forms of the *faxō* type (7.1.1.4).

7.2. Perfect system

The Italic "perfect" system, from the synchronic perspectives of Latino-Faliscan and Sabellic, reflects a merger of the PIE perfect and the PIE aorist. Historically, however, the *disiecta membra* of the Italic perfect make clear that both PIE categories remained distinct at the stage of Proto-Italic. (For a full treatment of the material according to this conception, with a focus on the Latin data, see Meiser 2003.) Despite certain parallel developments, such as an innovative "future perfect" category, the details of the breakdown of the PIE perfect and aorist varied considerably in the two branches of Italic, thereby accounting for the most significant area of divergence between Latino-Faliscan and Sabellic morphology. Here we survey the major features and developments, organized in terms of stem-formation (7.2.1 [Latino-Faliscan], 7.2.2 [Sabellic]), innovative pluperfect and future perfect categories (7.2.3, including perfect and pluperfect subjunctive), and endings (7.2.4). (This section treats the perfect active; for the perfect passive, see 7.3.1.2.)

7.2.1. The PIE primary perfect (with *e*-reduplication, *o*-grade root in the singular and zero grade in the plural) is continued in Latin and Faliscan by reduplicated perfects, which nevertheless vary from the PIE model. Root ablaut is no longer found: either the zero grade is generalized (*pungō* 'pierce', root *$peug$-: perf. *pupugī*) or the present-stem vocalism is copied (*pariō* 'give birth, produce', perf. *peperī*, OFal. **pepara[i]**). There are also a number of formal innovations involving the reduplication: (i) the vocalism of the reduplicating syllable copies the root vocalism of verbs with pres. stem in /i, u, o/, although variation is found (cf. *pupugī* just cited, the normal Classical form, vs. *pepugī* cited by Aulus Gellius); (ii) reduplication is lost in compound forms, whence in some

cases a synchronic dereduplicated simplex (OLat. *tetulī* 'I carried', but *rettulī*, *attulī* and Class. simplex *tulī*), and some other perfect stems might have arisen via dereduplication (Meiser 2003: 162); (iii) roots with intial *sT-* clusters show full reduplication but loss of the internal /-s-/ (*scindō* 'cut', perf. *scicidī*). Semantically, the resultative meaning of the PIE perfect is retained as an archaism in a few forms (cf. the "defective" verb *meminī* 'I remember' < *'I have called to mind' [7.1.2]); but by and large, Italic perfects denote simple past actions or (less frequently) a tense value similar to the English "present perfect" (see Weiss 2011: 452−455, with additional details).

The PIE aorist is continued in Italic by perfect stems descended from PIE root aorists and *s*-aorists (cf. also 7.2.4 below on endings derived from the thematic aorist). Forms descended from root aorists typically show full grade: Lat. *līquī* 'I left' (*līqu-* < **leik^w-*, cf. Ved. 3 sg. *āraik*, 2 sg. mid. *rikthās* and Gk. [thematized] ἔλιπον). In sigmatic perfects (based on *s*-aorists), the original lengthened grade is sometimes seen (Lat. pres. *vehō* but perf. *vēxī* 'I carried', cf. Ved. *ávākṣam*) but more often lost via Osthoff's Law (Lat. *dīxī* 'I said' < pre-Lat. **deik̑-s-*, cf. Gk. ἔδειξα) or other secondary patterns; and in some cases a sigmatic perfect has replaced a different PIE preterite formation or reflects an Italic innovation. (See in detail Meiser 2003: 107−146.) Traditionally, some reduplicated perfects have been thought to continue PIE reduplicated aorists (e.g. Lat. *tetigī* 'I touched', cf. Hom. ptcple. τεταγών), but this is far from certain (see Meiser 2003: 147−150 contra).

Descriptively, Latin shows a number of primary perfects with long stem vowel; these have a range of sources, beyond the *s*-aorist type just mentioned (Lat. *vēxī*), including the following: (i) regular development of preconsonantal vowel plus laryngeal, e.g. *fēcī* 'I did, made' (< *k*-extended root aorist stem **d^{h}eh$_1$-k-*, cf. Gk. ἔθηκα and, without the *k*-extension, Ved. *ádhāt*) or reduplicated *HeC-* stems with zero grade root, i.e. *He-HC-* (e.g. *ēmī* 'I bought' < **h$_1$e-h$_1$m-*); (ii) other phonological effects associated with reduplication, e.g. *sēdī* 'I sat' < **se-sd-* (pres. *sedeō*); (iii) much older phonological effects, as perhaps in Lat. *vēnī* 'I came' (pres. *veniō*), where the original root aorist (cf. 7.1.1.4 on Lat. *ēvenat*) could have developed a long stem vowel in part of its paradigm as a result of Stang's Law and Szemerényi's Law (see Weiss 2011: 412 n. 12, with reference); (iv) continuation of the lengthened-grade imperfect stem of some acrostatic ("Narten present") verbs, as has been suggested for *lēgī* 'I collected' and a series of other verbs (see Weiss 2011: 412−413 and Jasanoff 2012). The historical analysis of many such forms, however, is a matter of controversy, along with questions about the possible relationship of some forms to long-vowel preterites in Germanic (e.g. Lat. perf. *scābī* 'I scraped' to pres. *scabō*, cf. ON pret. *skóf* to pres. *skafa* 'id.'), sometimes involving "deep" reduplications with subsequent consonant loss and compensatory lengthening (e.g. *Te-TT-* > *TēT-*), followed in some cases by adjustments of vocalism − see e.g. Meiser (2003: 156) on **ske-skb^h-* > **skēb^h-*, replaced by **skāb^h-*, and more generally Schumacher (2005; and Jasanoff 2012 contra). For detailed treatments of Latin (and some Sabellic) long vowel perfects, see Meiser (2003: 152−158) and Garnier (2010).

The most important morphological innovation of Latin is the so-called "*v*-perfect" or "*u/v*-perfect" (no such forms are attested in Faliscan, perhaps by chance), the regular formation for all vowel-final perfect stems, including (i) the "secondary conjugations" (i.e. denominatives belonging to both the 1st and 4th conjugations, as well as the iterative-causatives and statives belonging to the 2nd conjugation), whence the productive perfect formations I (stem vowel *-ā-*) perf. *-āvī*, II (stem vowels *-ē-* [stative] and *-ĕ-* [iterative-

causative, i.e. *-e- of *-e(ịe/o)-]) perf. -ēvī and -uī (< *-e-u̯-ai), IV (stem vowel -ī-) perf. -īvī, and (ii) perfects based on laryngeal-final roots, whether those resulting in a long vowel (of the type *ĝneh₃- 'know', perf. [g]nōvī) or those with root-final vocalized laryngeal (of the type *sekH- 'cut', perf. secuī < *seka-u̯-ai; see recently Martzloff 2015 on this type). The source of the formation is disputed, but may involve a morphologization of the secondary glide in the pre-Lat. perfect *fū̯u̯ai (to *bʰuH- 'be[come]') > OLat. fūī, Class. fuī (Seldeslachts 2001: Ch. I, assuming an old root aorist; similarly Willi 2009, but on the basis of a reduplicated perfect *fuβu̯ai > *fū̯u̯ai). For a different theory, involving a phonological development associated with laryngeal-final roots (cf. nōvī 'I know', root *ĝneh₃-), see Weiss (2011: 411). For further discussion, see Meiser (2003: 220−224).

The absence of v-perfect forms in Faliscan has already been noted. The sparse documentation of perfect forms shows convergences with Latin (cf. above on Fal. **pepara[i]**, further **keset** 'gessit'), but also some divergences: Fal. **fifiked/f[if]iqod** 'fashioned' (reduplicated) vs. Lat. finxī (sigmatic), Fal. **faced/facet** (dereduplicated? cf. VOL **vhevhaked**, O. fefacid) vs. Class. Lat. fēcī (above).

7.2.2. The overall structure of the Sabellic perfect system is similar to that described in 7.2.1 for Latin (and Faliscan), but many of the details differ strikingly. Thus, for primary perfects derived from PIE perfect and aorist stems, some verbs show the same (or nearly the same) development in both branches: e.g. for *preḱ- 'pray': Lat. poposcī ~ U. **pepurkurent** (both with reduplicated perfect stem); and for *gʷem- 'come': Lat. vēnī, though descriptively a long-vowel perfect, may descend from the PIE root aorist (7.2.1), while O. **kúmbened** and U. benust (3 sg. fut. perf.) may derive from a short-vowel form within the same root aorist paradigm. But most verbs differ: O. **fifikus** (reduplicated, like Fal. **fifiked/f[if]iqod** above) vs. Lat. finxī (sigmatic), O. (ptcple.) sipus 'knowing' (sip- < *sēp-; long-vowel perfect) vs. Lat. sapuī 'I knew' (v-perfect), etc. It is this predominant distinctive patterning that points most clearly to the survival of both (PIE) perfect and aorist into Proto-Italic.

Similarly, for the perfects of secondary conjugations (denominatives, etc.), sometimes referred to as "weak perfects" (vs. the "strong perfects" based on PIE primary perfect and aorist stems): the v-perfect (as in Latin) is unattested in Sabellic, which instead displays an elaborate series of innovative perfect formations of its own (largely diverging even within the Sabellic languages). While descriptively suffixal, some may reflect univerbations of periphrastic constructions. Many questions remain about these formations, which cannot be treated here in full. Most important are the following: (i) the "tt-perfect" (Oscan and related dialects only, including Pre-Samnite), e.g. O. **prúfatted** 'he approved' (cf. Lat. probāvit, with v-perfect) (see Clackson 2015: 25−26 and especially Willi 2016 for survey and critique of previous approaches, and a new theory based on a periphrastic construction with pres. ptcple. + STAND); (ii) the "nkị-perfect" (Umbrian only), e.g. combifiansiust (and other spellings) 'he will have communicated' (see Willi 2010 for survey and critique of previous approaches, and a new theory based on a periphrastic construction with acc. sg. noun + DO, MAKE); (iii) the "ō-perfect" (South Picene only as such, but cf. 7.2.3 below on the Sabellic future perfect), e.g. **opsút** 'he made' (see Clackson 2015: 19 and especially Zair 2014: 377−382 for survey and critique of previous approaches, and a new theory based on developments involving the inherited o-grade perfects of laryngeal-final roots). Other formations are more sparsely attested, such as a

possible "*k*-perfect" in Oscan (e.g. **kellaked** 'he enclosed [?]'), on which see Willi (2010: 12−13).

7.2.3. Latin shows an innovated pluperfect formation, but there is no evidence for pluperfect forms in Sabellic (or virtually no evidence, cf. 7.1.1.2 on O. **fufans**), given the nature of those texts; and both Latin and Sabellic developed innovative future perfect forms. (Faliscan is omitted here, given the absence of both pluperfect and future perfect forms. This section treats active forms; see 7.3.1.2 for pluperfect and future perfect passive and deponent forms.)

The Latin pluperfect and future perfect show a marker *-*is*- (preconsonantal /-is-/ but intervocalic /-er-/ via weakening and rhotacism) following the perfect stem and preceding personal endings, namely the "*ā*-endings" (as in the imperfect of *sum*: *eram*, *erās* etc. [7.1.2]) for the pluperfect (thus 1 sg. *amāv-er-am* 'I had loved', 2 sg. *amāv-er-ās* 'you had loved', etc., and the thematic endings for the future perfect (1 sg. *amāv-er-ō* 'I will have loved', 2 sg. *amāv-er-is* 'you will have loved', etc., except 3 pl. *amāv-er-int*, which uses the subjunctive ending). The historical analysis of these formations, however, is very controversial; discussion is reserved for 7.2.4, since the characteristic element *-*is*- is also a recurring feature of the perfect endings. Also built with this formant, at least descriptively, is the perfect subjunctive (*-*is*- plus *-*ī*- [< athematic optative *-*ih₁*-] plus secondary endings, thus *amāv-er-i-m*, *amāv-er-ī-s*, etc.) and the pluperfect subjunctive (*-*is*- plus *-*sē*- [suffix of the imperfect subjunctive, 7.1.1.5] plus secondary endings, thus *amāv-is-se-m*, *amāv-is-sē-s*, etc.). But see 7.2.4 for a different conception.

The Sabellic future perfect (which is very well attested) appears as a suffix /-us-/ (preceding personal endings) on the surface (e.g. U. *benust*, *combifiansiust* [7.2.2]), but its background remains controversial. See Clackson (2015: 24 n. 70) and especially Zair (2014, with detailed survey of previous approaches), arguing for historical *-*ō*- (identified with the South Picene *ō*-perfect [7.2.2]) plus the future suffix *-*s*- (7.1.1.3).

7.2.4. Not surprisingly, the endings of the Italic perfect system have their sources in PIE perfect and aorist endings; these have nevertheless undergone a series of innovations and display considerable variation, especially in third person forms. (In addition to the handbook treatments, see recently Clackson 2015: 30−31.)

A characteristic innovation of Latin and Faliscan consisted in the addition of the *hic et nunc* particle *-*i* (as in the primary active endings) to the PIE perfect endings: thus 1 sg. *-*h₂e* (or *-*h₂a*, with laryngeal coloring) → *-*h₂a-i* > OFal. (and pre-Lat.) /-ai/, whence regularly OLat. -EI and Class. Lat. *-ī* (OFal. **pepara[i]** = Lat. *peperī*, 7.2.1); similarly 2 sg. *-*th₂e* (*-*th₂a*) → /-tai/, cf. OLat. -TEI and Class. Lat. *-tī* in -ISTEI, *-istī* (with additional element *-is-*, see below) and 3 pl. *-*ēr* (< **-*ers*) → *-*ēr-i* > Lat. *-ēre*. (Unique is VOL STETERAI 'they have set up', with *-*ēr* plus *-*ai* from 1/2 sg.) Likewise, 3 sg. *-*e* → *-*e-i*, but this was renewed by adding the general 3 sg. marker /-t/, whence (with monophthongization, and long scansion retained in Plautus) OLat. *-īt*. (1 pl. *-imus* and 2 pl. *-istis* were remade after the primary active endings, but *-istis* again shows the characteristic *-is-* element.) Also well-attested inscriptionally, however, is the 3 sg. secondary ending -ED (e.g. Lat. FECED, Fal. **faced** '[s]he did, made'), originally from the thematic aorist; this was in turn remade with final /-t/, whence OLat. -ET (cf. Fal. **keset** 'gessit') and (with final vowel-weakening) already OLat. *-ĭt*. Still more variation is found in the 3 pl.: beside archaic *-ēre* (also characteristic of Latin poetry and some

prose genres), literary Latin (especially OLat.) attests, relatively rarely, an ending *-ĕrunt* (perhaps also seen in some inscriptional forms of the type DEDRON, with syncope or syllabic notation <D> = /dĕ/), which survived into Romance (Väänänen 1981: 141); this form is built with the marker *-is-* plus 3 pl. aorist *-ont*, while the regular Class. Lat. ending *-ērunt* combines *-ēr(e)* and *-ont*. Faliscan diverges further: OFal. 3 pl. perf. **fifiqod** (7.2.1) shows /-ond/, with the original version of the 3 pl. thematic aorist secondary ending. (On the 3 sg. and 3 pl. variation and its significance for Proto-Italic, see Kümmel 2007.) The element *-is-* referred to above (Lat. *-istī*, *-istis*, *-ĕrunt*) is presumably the same as in the Latin pluperfect and future perfect, and the perfect and pluperfect subjunctives (7.2.3), as well as the perfect active infinitive in *-is-se* (7.3.2.3). Its source is controversial. See Leumann (1977: 609, with older literature and critique of earlier accounts involving the Vedic *iṣ*-aorist); for an elaborate theory involving a haplologized version of an original periphrastic expression based on the perfect active participle (which does not survive in Latin as such [7.3.1.2]), see Meiser (1998: 215). Finally for Latin, a special feature connected with the forms of perfect endings is the existence of "short forms" (or "contracted forms") of the perfect, well attested for both *s*-perfects and *v*-perfects: e.g. 2 sg. *dīxtī* (for *dīxistī*), infin. *dīxe* (for *dīxisse*), pluperf. subj. *dīxem* (for *dīxissem*) etc.; similarly *audīstī*, *audīsse*, *audīssem* etc. (for *audīvistī* etc.). These have their sources in phonological reductions (thus *audīstī* and the like with regular glide loss and contraction for /u̯/ between like vowels), but then induce analogical behavior in other contexts, thus *amāstī* etc. for *amāvistī* etc. (where glide loss should not have occurred). The behavior of these forms in the texts is complex; for many details (including other types of shortened perfects), see Leumann (1977: 598−602) and Weiss (2011: 411−412).

The Sabellic endings show a similar picture, although they differ in detail. Thus O. **manafum** 'I entrusted' shows a 1 sg. thematic aorist ending (< *-o-m*), cf. the Latin/ Faliscan 3 sg. type FECED/**faced**, itself well-attested in Sabellic (O. **deded**, U. **dede** 'he gave', also with occasional replacement of final /-d/ by /-t/ in South Oscan, as in Latin). The 3 pl. ending /-ens/ of Oscan and Umbrian (O. **prúfattens** 'they approved') ultimately reflects developments based on athematic secondary *-ent*, while SPi. *ō*-perfects show 3 sg. *-t* (**opsút** [7.2.2]), secondarily based on primary *-ti*, and 3 pl. **-h** (**adstaíúh** 'they set up') < secondary *-nd* (see Zair 2014: 378 n. 39, with references). Finally, if Pael. *lexe* 'you (pl.) have read' continues a sigmatic perfect /lek-s-e/ (to a verb comparable to Lat. *legō* 'read'), it may preserve a remarkably archaic 2 pl. ending *-e* comparable to Ved. *-á* (Weiss 2011: 392−393).

7.3. Non-finite forms

7.3.1. Participles and supines

7.3.1.1. As in PIE, the active participle belonging to the present stem inflects with a suffix *-nt-*, generalized as such (apart from a few irregular forms) in Latin (vs. ablaut variants elsewhere, e.g. *-ont-* in Greek for thematic verbs): thus synchronically *-ent-* (< post-consonantal *-n̥t-*) for III and III-iō/IV conj. verbs (III *agent-*, III-iō *capient-*, IV *audient-*), and *-nt-* following the stem of I conj. verbs (I *amant-*) and II conj. verbs

(II *sedent-* 'sitting' = U. **zeřef**/*serse*); the original I and II stems (**amānt-*, **sedēnt-*) underwent regular Osthoff-shortening of the stem vowel. (See 2.1 on the variable inflection of the abl. sg. form.)

Some irregular forms show a suffix **-ont-*, as in *eunt-* 'going' (beside nom. sg. *iēns*; see Weiss 2011: 429 on the complex background of this paradigm), *sōns* 'guilty' (the original participle of *sum*, otherwise seen as *-sent-* in prefixed forms: *praesēns*, cf. O. abl. sg. *praesentid*), and the **u̯el(H)-ont-* 'wishing' that underlies *voluntās* 'desire'.

The PIE aorist active participle, also made with this suffix, is not a part of the Latin verb system as such, but may survive in some lexicalized forms, such as *cliēns* 'dependent', *trāns* 'across' (Meiser 2003: 46; Vine 2008: 20−21 [*trāns*]).

Similarly, the PIE middle participle in **-mh₁no-* survives only in the 2 sg. passive ending *-minī* (if that is the correct analysis, cf. 7.1.1.6) and in lexicalized relics, e.g. *alumnus* 'nursling' (cf. *alō* 'nourish'), *fēmina* 'woman' (among other forms based on PIE **dʰeh₁-[i-]* 'suck[le]', e.g. *fēcundus* 'fertile', *fētus* 'offspring', etc.).

7.3.1.2. The so-called "perfect passive participle" of the Italic verb is based on a PIE verbal adjective with suffix **-tó-*, originally with root in the zero grade, and in PIE probably with neither exclusively passive nor preterital value (see Weiss 2011: 437). Formally, there are many archaic examples: thus *dictus* 'said' (< zero grade **dik̂-tó-*) vis-à-vis the thematic present stem *dīcō*, OLat. DEIC- 'say' (< *e*-grade **déi̯k̂-e/o-*), or O. **prúftú** 'placed' < pre-O. (i.e. pre-syncope) **pro-fa-to-* (**-fa-to-* < **-dʰh₁-to-*, cf. Lat. *prōditus* 'put forth'). The original system, however, has undergone considerable adjustment, including patterns such as the following:

(i)   most I conj. verbs attach **-to-* (> Lat. *-tus*, *-a*, *-um*) to the present stem, thus *amāre* (pres. stem *amā-*) → *amātus* 'loved', U. **pihaz**/*pihos* 'purified';

(ii)   similarly, some II conj. verbs attach the suffix to the present stem, e.g. *dēlēre* 'destroy' → *dēlētus* 'destroyed';

(iii)   many II conj. verbs display a format "root + **-eto-*" (based on an analogy that originated in iterative-causative forms with suffix **-éi̯e/o-*), e.g. *tacēre* 'be silent' → *tacitus*, U. **taçez** 'quiet';

(iv)   the root form of the Italic pres. indic. has often spread to the participle, and the outcome of the suffixation is often disrupted by phonological processes; e.g. for the above pattern: *docēre* 'teach' → pre-Lat. **dok-eto-* > (via syncope) *doctus* 'taught, learnèd';

(v)   some II conj. verbs with *s*-perfect indicative have created perf. pass. ptcples. in *-sus*, e.g. *haereō* 'stick', perf. *haesī* → *haesus* 'stuck';

(vi)   some III conj. verbs with original nasal infix have spread the pres. stem (with nasal) to the participle: e.g. *iungō* 'join', but *iūnctus* 'joined' (for expected †*iuctus*), vs. the archaic distribution preserved in cases like *vincō* 'conquer', ptcple. *victus* 'conquered';

(vii)   most IV conj. verbs add *-tus* to the pres. stem, thus *audīre* → *audītus* 'heard', though many build the ptcple. directly to the root (e.g. *sarcīre* 'mend', but ptcple. *sartus*, with regular cluster reduction < *sarktos); differently U. *sarsite* (adv.) 'altogether' (vel sim.), as if Lat. †*sarcītē*;

(viii)   *-ītus* has spread to a number of III/III-iō verbs with perf. in *-īvī*, e.g. *quaerō* 'seek, ask' (perf. *quaesīvī*) → *quaesītus* 'sought';

(ix)   some verbs display suppletive behavior, e.g. *ferō* 'carry' (root *b^her-) but ptcple.
       lātus (root *$telh_2$-);

and still other patterns; for many additional details, see Ernout (1953: 220−228), Weiss
(2011: 437−443). (For possible traces of the perfect passive participle in Faliscan, see
Bakkum 2009: 173. The possible South Picene forms remain unclear in some respects;
see e.g. Vine 1998: 21 n. 46 on SPi. **deiktam** '?', with unexpected full grade and possible
*-eto-, with syncope.)

With regard to function: apart from typical (and some special) participial usages,
what is important for morphology is that this form is used, together with forms of *sum*
'be', in a periphrastic formation that provides the regular perfect passive (including
pluperfect and future perfect passive, perfect and pluperfect subjunctive passive), and
the perfect-system forms of deponent verbs: i.e. perfects with present *sum* (*amātus sum*
'I was loved', *amāta est* 'she was loved', etc.), pluperfects with imperfect *eram* (*amātī
erāmus* 'we had been loved', etc.), future perfects with future *erō* (*amātus eris* 'you will
have been loved', etc.); similarly for deponents, e.g. *sequor* 'follow' → *secūtus sum* 'I
followed', *secūta erat* 'she had followed', etc. (The same usage is documented for Sabel-
lic perfects and future perfects, though the auxiliary stem *fu-* is also used: O. *scriftas
set*, U. *screihtor sent* 'they were written', U. **pihaz fust** 'it will have been purified', etc.;
but differently O. *comparascuster* 'it will have been decided', with the active fut. perf.
form passivized.) Variant forms with the perfect of the auxiliary verb are also found in
Latin (*amātus fuī/fueram/fuerō*), but the details of usage and attestation are left aside
here.

The PIE perf. act. ptcple. in *-$ṷos$-/*-$ṷes$-/*-us- (Skt. -$vā̃ms$-/-$uṣ$-, Myc. /-woh-/, etc.)
does not survive as such. In addition to the possibility of its appearing in the Sabellic
future perfect (but see 7.2.3), it has been taken to appear in SPi. **vepses** '?' (if from pre-
SPi. **vep-us-**, with syncope), but the meaning and interpretation of the form remain
controversial (see Nishimura [forthcoming], with references); and it may appear in a few
lexicalized relics, such as Lat. *apud* 'among', *cadāver* 'corpse', O. *sipus* and Volsc. *sepu*
'knowing', this word perhaps borrowed into Latin as *sībus* 'callidus sive acutus' (Festus)
(see de Vaan 2008 and Untermann 2000 s.vv.).

7.3.1.3. An innovated future active participle (attested for Latin only) shows a formant
-ūrus (i.e. *-ūrus, -a, -um*), normally added to the stem of the perf. pass. ptcple. (thus
ductus 'having been led' → *ductūrus* 'about to lead'), but in some cases formed to the
present stem (e.g. *morior* 'die' → *moritūrus* 'about to die', cf. perf. pass. ptcple. *mortu-
us*). The starting point for the formation may have been *futūrus* 'about to be' (the fut.
act. ptcple. to *sum*), ultimately a *ro*-adjective based on the instr. sg. of an abstract, i.e.
pre-Lat. *$futū$ 'with futurity' (Fortson 2007; cf. 6.1 on deinstrumental derivation).

7.3.1.4. The gerundive (or "future passive participle"), attested in both Latin and Sabel-
lic, is an innovative verbal adjective that expresses necessity or obligation. Descriptively,
a thematic suffix that appears as *-ndo-* in Latin is attached to the present stem of I conj.
and II conj. verbs (*amandus* 'to be loved', *docendus* 'to be taught', in both cases with
Osthoff-shortening), while in III/III-iō and IV conj. verbs the form varies between *-endo-*
(*dūcendus* 'to be led', *faciendus* 'to be done', *audiendus* 'to be heard') and *-undo-* <
*-ondo- (*faciundus* 'to be done'), the latter especially in OLat. and archaizing contexts,

and also appearing in a series of isolated lexicalized forms (e.g. *secundus* 'second' < *'following' [5.2.1], *rotundus* 'round' < *'rolling', and others). (The Latin "gerund" – a pure verbal noun used in non-nominative singular case forms − has the same formation.) The Sabellic picture is similar, except that the element corresponding to Lat. *-nd-* appears as *-n(n)-* (O. **úpsannúm** 'to be done', U. *pihaner* 'to be purified') and thematic verbs show only the *e*-grade form (U. *anferener* 'lustration to be performed'). There are many theories about the background of the formation, none entirely successful; see the discussion by Weiss (2011: 443−444) and the extensive bibliography cited at Weiss (2011: 444 n. 75) and Meiser (1998: 228).

7.3.1.5. There are two so-called "supine" forms, which in origin are case forms of verbal *tu*-stem nouns. In PIE terms, old *tu*-stems would be expected to show full grade of the root, and there may be some relics of such forms (e.g. *genitum* to *genō/gignō* 'engender'). Synchronically, however, most of these forms are derived from the past participle stem (for *genō/gignō* cf. *[g]nātus* 'born', synchronically associated with *nāscor* 'be born').

The supine in *-um* (i.e. < acc. sg. *-tum*), attested in Umbrian in addition to Latin, is mainly used to express purpose after verbs of motion (U. **avef anzeriatu etu** 'he shall go to observe the birds'), an inherited pattern with good parallels in Indic and Balto-Slavic.

The supine in (Class.) Lat. *-ū* (in Plautus also *-uī*), which is not found outside Latin, appears in phrases introduced by adjectives meaning 'good', 'easy', 'useful' and the like (e.g. *facile factū* 'an easy thing to do') and by *fãs est* 'it is proper' and *opus est* 'there is a need'. Although the (Class. Lat.) form looks synchronically like an abl. sg., it may well be dat. sg. (cf. 1.4.2 and Plautine *-uī*).

7.3.2. Infinitives

7.3.2.1. The Latin present active infinitive is marked synchronically with a suffix /-se/, surfacing as such after consonants (e.g. *es-se* 'to be') but appearing as *-re* after vowel stems, owing to rhotacism (as in the regular conjugation classes: I *amā-re*, II *docē-re*, III *age-re*/III-iō *cape-re*, IV *audī-re*), and undergoing assimilation in some post-consonantal contexts (e.g. *fer-re* 'to carry', *vel-le* 'to wish'). (Rare apocopated forms are also found: ᴛᴀɴɢᴇʀ 'to touch', Class. *tangere*.) The suffix was probably abstracted from reanalyzed loc. sg. forms of neuter *s*-stems that seemed to match III conj. stems, of the type (pre-Lat.) loc. sg. *gen-es-i* 'in birth, in bearing' (cf. Lat. *genus* [1.3.1, 6]) → thematic infin. *gen-e-si* 'to bear', cf. OLat. *genō*, infin. *genere* 'to bear'. (Archaic instances of the original formant /-si/ may appear in OFal. **menes{e}i** [i.e. /menesi/] 'to remain', cf. Gk. μένω for the plain thematic form, vs. Lat. *manēre* [discussion in Dupraz 2006: 329−330; for a different interpretation of the Faliscan form, see Weiss 2011: 446 n. 81], and perhaps in VOL ᴏɪsɪ 'to bring' [see Tichy 2004].) The suffix, once abstracted, then spread to other present classes, and beyond: cf. *fore* 'about to be' < pre-Lat. *fu-se* (alternate future active infin. to *esse*, beside *futūrum esse* [7.3.1.3, 7.3.2.5]), and further 7.3.2.3 (perfect active infin.).

The Sabellic ending is *-om* (added to the present stem), e.g. I O. *moltaum* 'to fine', II O. **fatíum** 'to speak', III O. **deíkum**/*deicum* 'to say', III-iō U. **façiu** 'to do', cf. also

O. **ezum**, U. *erom*, **eru** 'to be'. The appearance of the ending as a thematic acc. sg. desinence is deceptive: more likely (see Fortson 2012: 76 n. 5, with references) this reflects an original athematic acc. sg., in the first instance appearing in root nouns (cf. the infinitival use of root-noun accusatives in Vedic). As seen above (1.3.3), the consonant-stem acc. sg. ending was replaced in Sabellic by the thematic ending.

7.3.2.2. The present passive (and deponent) infinitive appears as follows in the Classical language: III and III-iō conj. verbs add *-ī* to the root (thus III *ag-ī* 'to be led', III-iō *cap-ī* 'to be taken'), while the other classes add *-rī* to the present stem (I *amā-rī* 'to be loved', II *docē-rī* 'to be taught', IV *audī-rī* 'to be heard'). The III/III-iō pattern probably reflects an original root-noun dat. sg. in *-*eị* (cf. infinitival use of dat. sg. root nouns in Vedic), while the I/II/IV type (-*rī* < *-*seị*) may be a contamination of this with the *-*si* of the present active infinitive. (Alternatively, it could reflect an *s*-stem dat. sg. in *-*(e)s-eị*, reanalyzed as *-*seị*; cf. 7.3.2.1 on loc. sg. *-*es-i* → thematic infin. *-*e-si*.)

In OLat., however, III/III-iō forms show *-ier* (III *agier*), the other classes *-rier* (I *amārier*, etc.). According to a proposal by Meiser (2003: 57−58), supported with detailed arguments by Fortson (2012), here it is the *-rier* group that is primary, reflecting an Italic *-*δiēr* (later remodeled, within Latin, to *-*ziēr*, whence *-rier* with rhotacism, after vowel stems). This form is cognate with the Sabellic present passive infinitive in *-*fēr* (O. **sakrafír** 'to be consecrated'), which in turn shows a secondary addition of passivizing *-r* to a passive infin. in *-*fē̃* (U. *pihafei* 'to be propitiated'). This *r*-less form, finally, is ultimately cognate with the Indo-Iranian infinitives in *-*dʰi̯āi* (Ved. -*dhyai*, Av. -*diiāi*) < dat. sg. *-*dʰi̯ōi*, while the Italic forms may continue an *e*-grade version *-*dʰi̯ēi* (Fortson 2013). For many additional details on the Italic developments, see Fortson (2012: 85−92, 106−107).

7.3.2.3. The perfect active infinitive is formed by adding *-isse* to the perfect stem, consisting of the formant *-is-* (7.2.3, 7.2.4) and the infinitive marker *-se* (7.3.2.1), thus *amāvisse* 'to have loved' (1 sg. perf. *amāvī*), *docuisse* 'to have taught (1 sg. perf. *docuī*), etc.

7.3.2.4. The perfect passive (and deponent) infinitive is a periphrastic formation consisting of the perfect passive participle (7.3.1.2) with *esse* (rarely *fuisse*). This form is attested in Sabellic, e.g. U. **kuratu eru** 'to have been taken care of' (Lat. *cūrātum esse*).

7.3.2.5. The future active infinitive is a periphrastic formation consisting of the future active participle (7.3.1.3) with *esse* (infectum) or (more rarely) *fuisse* (perfectum), although these auxiliaries are often omitted. In Classical Latin, the participle agrees in number and gender with the subject of the infinitive clause. But especially in OLat., an invariant *-tūrum*/*-sūrum* is found. Although sometimes considered to be a genuine archaism, it is more likely innovative (see e.g. Ernout 1953: 230; Fortson 2007: 84).

7.3.2.6. The rarely used future passive infinitive is a periphrastic construction with supine in *-um* (7.3.1.5) followed by the (impersonal) present passive infinitive of *eō* 'go', i.e. *īrī* (OLat. *īrier*). As shown by a passage in Cato (*Orat.* 176 Malcovati = Cugusi and Sblendorio Cugusi 171), this is an infinitivization of the impersonal passive indicative of *eō* used with the supine in *-um* (Ernout 1953: 232).

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49. The syntax of Italic

1. Introduction

By the term "Italic" we mean to designate all those languages, including Latin, which are covered under the "Proto-Italic" node on a tree diagram of Indo-European (IE) languages, as e.g. in Fortson (2010a: 10). This usage differs, for example, from that found in a relatively recent compendium (Ramat and Ramat 1998), which treats Latin separately from "The Italic Languages". It also excludes Venetic (on which see Wallace, this handbook) and, of course, the non-IE Etruscan. Within Italic we distinguish two primary branches: the Latin-Faliscan group (Latin and Faliscan); and the Sabellic group (Oscan, Umbrian, and South Picene). Latin is extensively documented, but Faliscan, while reasonably well-known, has no diagnostic syntactic structures which are not also found in Latin. Within Sabellic we recognize three subdivisions, namely the Oscan branch, comprising Oscan, Paelignian, Marrucinian, Vestinian, and Hernican; the Umbrian branch, which includes Umbrian, Aequian, Marsian, and Volscian; and the Picene branch, made up of South Picene and pre-Samnite (see Wallace 2007. The literature on the Italic languages is immense, and I make no attempt in this essay to attain bibliographical