10 Latin

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Closely related to Oscan-Umbrian and the Sabellian dialects of central Italy, Latin is considered a member of that important branch of the IE language family traditionally termed ‘Italic’. This branch of Indo-European appears, in turn, to share a number of similarities exclusive to itself and Celtic, and together with the latter, Germanic, Greek, Hittite and Tocharian, forms what are called the centum dialects. It will not be inappropriate, we believe, to clarify, albeit briefly, this widely held view, commonly found in most current handbooks, which may at first seem puzzling. For instance, an immediate comparison between, say, a Latin text and a text written in another Italic dialect or language will clearly reveal two or more fundamentally different and mutually unintelligible languages. Undoubtedly, the degree of unintelligibility is far greater, for example, than that between Modern Italian and Spanish or Portuguese. In fact, if we look beyond the unmistakable superficial differences, there emerge ‘obvious’ similarities between Latin and Oscan-Umbrian, as identified by the historical-comparative method, including among others the following:

(a) Phonetics: *a > a, *ew > ou, *l > ol, or, *m, *η > em, en, *s- > -z-, *t/r- > -ss-, *s > -d, the word-initial voiced aspirates *b, *d, *g become voiceless fricatives, and the assimilation of words of the syllabic pattern *p...kw > kw...kw.

(b) Morphology: the ablative in -d is extended beyond -ole- stems, the formation of the dative singular of the personal pronouns, the formation of the imperfect indicative and subjunctive paradigms, the formation of the passive, gerundive and the supine, the fusion of the IE aorist and perfect into a single perfectum, and the fusion of the subjunctive and optative moods.

Clearly, many of these phenomena may have developed independently in Latin and Oscan-Umbrian, nor do they appear, when considered individually, peculiar and exclusive to these languages alone, inasmuch as they are attested in other IE languages (and must therefore be ascribed to more general phonetic developments, a fact confirmed by typological linguistics). Yet, the fund of common phenomena occurring in both languages leads us to hypothesize, not without reason, that a strong bond once existed between the
languages belonging to this group. A similar argument can be put forward to demonstrate the much disputed hypothesis of a common 'Italo-Celtic' unity, within which Latin, in particular, allegedly shares some features with Gaelic, and similarly Osco-Umbrian with Brythonic. The following phenomena would seem to support this view:

(a) Phonetics: the labiovelars *kw, *gwh show similar treatment in Latin and Gaelic, but become labials in Osco-Umbrian and Brythonic, the previously noted assimilation in the sequence *p...kw > kw...kw, giving rise to labiovelars in Latin and Gaelic, but labials in Osco-Umbrian and Brythonic.

(b) Morphology: the genitive singular of -ole- stems (which ends in -i in both Latin and Gaulish), impersonal forms of the verb characterized by -r, the future in -b- (attested in Latin and Irish), subjunctive formed by adding -ä- and -s- to the verbal root, the formation of the comparative and superlative by the addition of the suffixes *-jös- and *-somo-, respectively.

(c) Vocabulary: the existence of a number of words exclusive to ‘Italic’ and Celtic, e.g. such Latin words as terra, harēna, pulvis, seges, dorsum, pectus, tālus, grossus, müis, vastus, metere.

Pursuing this line of investigation, it has been further observed that Italic, Celtic and Germanic (and sometimes also Balto-Slavonic) have a number of elements in common, particularly in the field of lexis, which do not appear in Greek, Armenian and Indo-Iranian. Although faced with the difficulties of an admittedly approximate chronology, scholars have been led to postulate that this common fund of words in the above languages reflects a common period of civilization, the so-called ‘civilization of the North-west’. However, it can be equally shown how a group of words in the field of lexis, say Latin and Greek, or Latin, Greek and Indo-Iranian, figure to the exclusion of the languages of the ‘(north-)western group’. The preceding discussion, admittedly couched in very general terms, suffices to demonstrate the inevitable complexity involved in the problem of classifying Latin in relation to the other IE languages. In this area of investigation, all seemingly strong hypotheses are open to reasoned impugnation. One only has to consider the number of coincidences that are presumably due to the independent preservation of a one-time IE legacy, and the number of times the same coincidences have been shown to be totally absent elsewhere. Such discrepancies can be ascribed to nothing more than pure accident.

The Historical Homeland
The historical homeland of the Latin language corresponds exactly to the Latium vetus (or antīquom), a geographical area considerably smaller than the
present-day homonymous Italian region. It was bordered by the Tiber to the north, the lower course of the Anio to the north-east, the Apennine chain to the east, the Volscian territory to the south, and by the Tyrrenian Sea to the west, with a stretch of coast extending from the Circaeum headland to the mouth of the Tiber. As Roman political and military domination spread, the *lingua Latina*, which at first did not refer exclusively to the speech of the *urbs Rōma*, came increasingly to be identified antonomastically, so to speak, with the variety spoken specifically in the *Urbs*, as opposed to the varieties of neighbouring areas, themselves originally ‘Latin’. Subsequently, the Latin language gradually established itself over the entire Italian territory and beyond, coming to be spoken, as is well known, in much of central and western Europe and on the coasts of north Africa. In fact, despite the fastidious search for standardization in the literary language, Latin exhibited a great deal of dialectal and social variation which simply cannot be dismissed as marginal or irrelevant. Such variation is visible since earliest times in the epigraphic documents and the testimonies of a wide range of authors (and not simply grammarians, historians, or antiquarians). For instance, the Latin spoken in Rome diverged from that spoken in *Falerii* (namely Faliscan) or from the Latin spoken in *Prænestê* or *Lānuvium*. Analogously, one can distinguish between varieties such as the fossilized *sermo* used in religious or legal-administrative practices and the *Umgangssprache* of the aristocracy or the common masses, variously formed by Greek, Italic and Etruscan elements. Moreover, Rome itself originated in a *synoecismus* of cremating Latin and inhuming Sabine folk. If we add to this picture the Etruscan domination and the unquestionable presence ab antiquō of Greek (perhaps even Mycenaean) and Italic groups, we are forced to recognize the importance of a linguistic system characterized by a high degree of diversity, which can hardly be termed a single homogenous form of Latin. In accordance with the prescriptions of an admittedly widespread *discretio*, firmly established in the learned tradition, the immutable normative picture of Latin passed on to posterity through literary texts and grammars represents, in a certain sense, nothing more than the ideal systemization of the *Sprechsprache* diasystem, namely of the combined presence of numerous and mutually intertwining differences in the fields of phonology, morphosyntax and lexis. In the final analysis, the presence of numerous differences is parallel to that which historically characterizes all languages that have experienced a vast territorial expansion.

‘Rustic’ and ‘Urban’ Latin: Other Dialectal Influences

In this discussion of Latin we shall not embark upon a detailed examination of the features which distinguished the individual rustic varieties of Latin, which were heavily influenced, in particular, by the neighbouring Italic environment. Suffice it to mention here the ancient inscription found on a cup discovered in the territory of *Falerii* (what is now Civita Castellana), which reads *foied uino pipafo cra carefo* (cf. CIE 8179, see CIE 8180 for an identical
Map 10.1 Rome and her neighbours in the fifth century BC
inscription, with the exception of pafo for pipafo, found on another cup from the same area). The same utterance ‘translated’ in the established Roman standard would almost certainly have read hodie vinum bibam, cras carëbô. However, as proof of the rapid extraterritorial diffusion of the language of the Urbs, one only has to consider the famous Faliscan cooks’ slate (cf. CIL I2 364), a votive inscription composed in Saturnian, probably dating back to the beginning of the second century BC, where the ‘urban’ elements outnumber those features of a distinctly more foreign and peripheral nature:

Iouei Iunonei Mineruai | Falesce, quei in Sardinia sunt, | donum dederunt, 
magistreis | L(ucius) Latrius K(aesonis) f(ilius), 
C(aius) Salu[enai] Voltai f(ilius) coiraueront. 
gonlegium quod est aciptum aetatei age(n)d[ai], 
opparum a[d]ucitam quolundam festosque dies, 
quei soueis aastutieis opidque Volgani 
gondecorant sain[p]ium comuiia loidosque, 
ququei hue dederu[n]t jnperatoribus summeis, 
utei sesed lubent[es] be]ne iouent optantis

‘To Jove Juno Minerva, the Faliscans stationed in Sardinia made a votive offering. The heads of the guild, Lucius Latrius, son of Caeso, and Gaius Salvena, son of Volta, undertook arrangements. The guild, which makes life agreeable, [and is] rich in gladdening life and feast days, [the cooks’ guild] which with their own ability and the help of Vulcan frequently adorn the banquets and games, the cooks dedicated here [their votive offering] to the supreme leaders, in order that they willingly afford their generous help whenever it pleases them.’

Points of note in the first text include the interchange of f and h at the beginning of words, such that h- in the Latin of Rome corresponds to an f- in Faliscan (however the reverse may equally occur, as in the case of Fal. hileo ~ Lat. filiö, and similarly haba ~ faba, etc.). This phenomenon is found also in the dialect of Praeneste, as shown by the forms Fercles, Felena, Foratia, corresponding to Lat. Hercës, Helena, Horätia. Nor can we rule out the possibility that such variations are of Etruscan origin, in so far as other Etruscan influences have apparently been detected in both the Faliscan and Praenestine varieties.

Furthermore, we should note the presence of -f- between vowels as opposed to -b-, the loss of final -m and -s (which, in any case, already characterized the most colloquial registers of the captial), and in the second text, the diphthong -ei > -e, several cases of c voicing (> g) both word-initially and word-internally, and a nominative plural in -eis for -ole- stems. Apart from the two texts just examined, already exemplary per se, we should mention here among the many other features typical of rustic Latin the
marked tendency to monophthongize diphthongs, the frequent syncope of unstressed vowels, the change $d > r$ before $[f, w]$ (and conversely $r > d$ in the context [-r # d-]), the preservation of -sn-, the failure of rhotacism to generalize, the nominative plural in -s also with -ā stems (as well as with -ole-stems, as noted above), the genitive singular in -osio of nouns of the II declension, the forms of the genitive singular in -us (-os) for consonant stems of the so-called III declension (as opposed to -is < -es in the dialect of Rome; symptomatic in this respect is the parallelism between the verb ending of the second-person singular middle which appears as -us instead of -is). In vocabulary, too, we have some evidence that the country dialects differed from the dialect of Rome. Of the numerous examples that we could cite here, the well-known testimony of Festus alone will suffice. Based on the latter, we are forced to conclude that, if Roman Latin used the term rēnēs for ‘kidneys’, the Latin dialects of Lanuvium and Praeneste used nebrundines and nēfrones, respectively. Similarly, the Roman nōsse and nōtio correspond to the Praenestine tongere and tongitio.

As for particular Italic elements, which not only influenced the Latin country dialects but also left their mark on the dialect of Rome itself, we should mention such words as būfalus, Mulcifer, rūfus, sīfilō, sīfulus, vafer, which coexisted alongside their ‘authentic’ Latin equivalents (which show a medial -b- as opposed to -f-) būbalus, Mulciber, ruber, sibīlō, sībilus, vaber (the latter attested in glosses). Hence, such words as bōs and lupus (where we would expect *vōs and *luquos, respectively; note that there is a strong case for ascribing lupus to Sabine); and lacrima, lingua alongside their expected Roman equivalents dacruma, dingua (in the latter example l- may, however, be the result of a Latin internal development, if we accept the plausible influence of lingō) and similarly oleō as contrasted with odor, ūdus, perhaps also solium as against sedeō (such an alternation, moreover, finds a parallel in Lithuanian). Thus, we have a number of words in which l occurs as opposed to the expected Latin $d$, one of the most striking peculiarities repeatedly ascribed to Sabine influence.

If we are indeed justified in postulating that in the linguistic conscience of Latin writers, and particularly grammarians, the apparently general label of veterēs or antiquī can be frequently and readily taken to refer specifically to a Sabine influence, then we are forced to presume a Sabine origin not only for such words as cascus (= vetus), cūris (= hasta), dirus (= malus) – recognized and attested by the auctōrēs themselves – but also for a whole series of phonetic phenomena such as the interchange of $f$- for $h$- noted above, or the absence of rhotacism (hence fedus for haedus, fasena for harēna, etc.). Thus, there is at least a presumption of Sabine origin for those words, to all intents and purposes of Latin stock, that do not exhibit rhotacism of intervocalic -s-, such as Caesar, casa, căseus. Today scholars are even more dubious about the presumed Sabine origin of the change ou > ā (instead of Latin ū, as in rōbīgo as opposed to rūfus, both from an IE root *rowdʰ-/*


rewd­, which also gives Roman ruber), as well as the monophthongization of ai and au which give ē and ē, respectively; in this respect we cannot fail to note, in particular, the doublets aulla ~ òlla, cauda ~ côda, caudex ~ côdex, Claudius ~ Clôdius, lautos ~ lôtus, plaustrum ~ plôstrum, etc., and as for the diphthong ai, the well-known testimony in Varro l.L. 5, 97 illustrates the use of haedus ~ hedus in accordance with an ‘urban’ vs. ‘rustic’ opposition. In fact, the tendency towards monophthongization of the diphthongs generally appears to be, rather, one of the many ‘Umbrianisms’ that variously influenced the Latin dialects over a long period of time and in a number of ways. In particular, the reductions just examined, namely ai > ē and au > ē, are typologically common and widely attested in the most diverse of linguistic systems. This undoubtedly suggests that such phenomena could easily have occurred independently in various registers of the Roman Umgangssprache, and are not necessarily the result of a direct ‘Italic’ influence.

None the less, we cannot fail to observe the well documented pursuit of the educated Roman classes, as early as the second century bc, to impose a standard literary language in which the ideals of urbäñitas and élegan­tim became increasingly established. Thus, there arose a widespread tendency to banish the symbols of antäquität, identified with pure Sabine origin, and those of rästicity, identified more generally with ‘Italic’ origin.

Being an argument better suited to a discussion of the history of the Latin language, we limit our discussion to a summary examination of the developments that characterized the vocabulary of the language of Rome. Suffice it to note that Roman vocabulary betrays a significant Greek influence in a number of loan words that arose through direct contact with the Greek, Ionian or Doric colonies and those of southern Italy and Sicily, or, alternatively, through Etruscan intermediacy. In this respect we may list early words like Achivi < λχαιφοί, oliva < ὀλίβα (and probably vinum < δομος), and similarly bal(i)neum < βαλανεῖον, calx < χάλαξ, camera < καμάρα, drach(u)ma < δραχμά, mächina < μαχανά, menta < μίνθα, mîna < μνά, purpura < πορφύρα, tesseræ < τέσσαρα, triumph(us) < θρίαμβος, and for those words which presumably betray a direct Etruscan intermediacy, we can add Catamitus < Γαυμήθης, cotômeum < κοτόνων, gubernäre < κυβερνάν, gutturnium/cuturnium < κουτεῖον, persōna < πρόσωπον (via Etruscan intermediacy fersu), sporta < σπορίδα (with much uncertainty in rendering both the plosive consonants and the back vowels), hence cisterna < κίστη and lanterna < λαμπερά (with adjunction of a typical Etruscan suffix to the Greek nominal base).

It appears that the betrayal of an early Greek influence in the Latin and Sabine dialects, following close contact with Greek peoples, is equally confirmed by classical sources which testify to the presence of Arcadians in Latium. On the basis of such sources, it has been possible to postulate that a word such as Lupercäles, which can undoubtedly be traced to the Arcadian settlement on the Palatine Hill, probably represents *wlukw-arkådes,
'Arcadian-wolves', hence the Latino-Sabine transformation of a term probably dating from the Mycenaean period.

Although accidentally or, rather, deliberately absent from the admittedly vast, but none the less normative and puristic, epigraphic and literary documentation of the classical period, an unrelenting and widespread penetration of Greek elements into the most varied registers of the everyday spoken language, and not simply that of the educated classes, is further confirmed by those loan words which betray a popular etymology (such as *aurichalcum* < ὀρέιχάλκος, *millefolium* < μῆλοφυλλόν, *caerefolium* < χαρέφυλλον) and by indirect reconstructions based on the evidence of the Romance languages, or the isolated pieces of evidence that have come to light from the later Latin period.

The Etruscans made remarkably little contribution to the vocabulary of Latin, although there are a number of noteworthy exceptions, as witnessed by the testimonies of grammarians and lexicographers, that we should mention such as *crumīna, fala* 'wooden tower', *fenestra, genista, hister/histrio, lanista* 'trainer of gladiators', *laniēna* 'butcher's shop'.

As for Celtic influence, we should first mention those terms that refer to particular types of carts such as *benna* 'a two-wheeled cart with a wickerwork body', *carpentum* 'a covered wagon, two-wheeled carriage', *carrus* 'a four-wheeled baggage-wagon', *essedum* 'a two-wheeled war-chariot', *petorritum* 'an open four-wheeled carriage', *raeda/rēda* 'a four-wheeled travelling carriage'. We can also include here terms denoting working animals, such as *verēdus* 'a swift horse' (its Low Latin hybrid word, *paraverēdus*, gives Ger. *Pferd*), or weaponry, like *catēia* 'a barbed spear, iron cudgel', *gaesum* 'an iron javelin', *lancea, parma* 'a light shield', *sparus/sparum* 'a short javelin', and, finally, those terms designating clothing, like *brācae* (in turn borrowed by Celtic from Germanic), *sagus/sagum* 'a tunic'. Besides these semantic domains, we can also mention such words as *alauda, betulla* and, in particular, *ambactus* 'serf', used in Ennius and which soon found its way into Germanic (cf. Goth. *andbahti* and present-day Ger. *Amt*).

In light of the obvious complexity involved in the intricate problem of evaluating the linguistic contributions made to Latin by the so-called Mediterranean substratum, we should have to dedicate a separate study to the question. Consequently, we shall limit ourselves to listing some of the uncontroversial cases of Mediterranean influence, such as *plumbum* (for which a vague resemblance with the Greek dialect forms has been noted μόλιβδος, μόλυβδος, βόλμιος), *vaccinium* (related to Gk ὑάκινθος), *viola* (Gk *Fίον*), *lilium* (Gk λείρον), *cypress* (Gk κυπάρισσος), *laurus* (Gk δάφνη/δαύτχον/δαύχυγο/λάφνη), *ficus* (Gk οὐζον), *rosa* (Gk Φρόδον) and perhaps *bāca/bacca*. In relation to the later example, it will be recalled that, in the absence of any direct evidence, a number of other cases where Latin words presumably descend from a Mediterranean substratum can be reconstructed on the basis of well-founded comparative evidence from Romance.
To conclude, we should finally mention Punic to which we can attribute mägälia/mapälia ‘the huts of the nomadic peoples’, perhaps tunica which like the Gk γυμνόν might have been borrowed from an eastern Semitic language), and above all the greeting ave, attested as early as Cicero and Catullus, and directly traceable to the earlier Plautine avō (cf. Poen. 994, 998, 1001), uttered by the Punic Hanno and glossed as salütat by the slave Milphio.

The Earliest Epigraphic and Literary Records
Among the earliest Latin epigraphic and literary (legal-religious) records, we begin with the Lapis niger, the famous mutilated cippus found in 1899, which presumably dates from about the sixth/fifth century BC. On this cippus, there is inscribed vertically boustrophedon a fragmented text, on the extant part of which can be clearly read quoi = qul, sakros = sacer, esed = esset, recei = rēgī, kalatorem = calātōrem ‘preacher’, ioumenta = iümenta, kapia = capiat, iouestod = iüstö. Passing over the fibula Praenestīna, the falsity of which has already been amply and, dare one say, satisfactorily proven, we cannot forget the inscription written on the so-called Vase of Duenos, found in 1880 in the valley between the Quirinal and the Viminal. The text of the inscription, whose dating may variably fall within the fourth century BC, on more than one occasion has been the subject of interpretātio, or rather divinātio among many linguists. Once again, we shall limit ourselves to listing only those words that can be clearly made out on the inscription: iouesat = iürat, deiuos = deös, qoi = qui, med = mē (acc.), mitat = variant of mittit, nei = nī, ted endo = in tē, cosmis = cōmis ‘courteous’, uirco = virgo, sied = si(e)t, pakari = pācārī, uois = vis, duenos = bonus, feced = fēcit, en manom = in mānum (where mānum is equivalent to bonum), duenoi = bonō. As for literary evidence, we begin with the few remains of the Carmina Saliāria, handed down to us in incomplete form via Varro and Terentius Scaurus, a grammarian of the Hadrian’s period. An element of remarkable linguistic interest is the verb form tremonti = tremunt, precious (and unique) evidence of the original third-person plural ‘primary ending’ (cf. Chapter 4, p. 113), before the generalization of -nt which had long since spread to the entire verbal paradigm. Also of note is the Carmen Arvāle, preserved in the record of the proceedings of the Frātrēs Arvālēs in AD 218, engraved on stone, whose points of linguistic interest include Lases for Larēs, the presumed rues for the classical ruīna, sins for sinās, the imperative fu derived from the root *bhur-, which supplied much of the conjugation of the verb ‘to be’, and berber which appears to be a reduplicated form of a demonstrative stem. Other testimonies of early religious formulae appear in Cato’s Dē agricultūra and Varro’s Dē linguā Latinā. Nor should we forget the admittedly scanty remains of the politico-legal language, closely related to the religious formulae constituted of fragments pertaining to the Lēgēs XII tabulārum, the text of which comes to us through quotations or sometimes paraphrases by various auctōres, notably
Cicero and the jurists, but not without some obvious modernization. Among the most characteristic features worthy of citation here, we should mention at least those phenomena of considerable relevance to the linguistic history of the Latin language, such as in and em for the accusative forms eum and sum of an early deictic *so- (cf. Gk ὅ), and, in the field of syntax, the absence of overt marking to signal the change of sentential subject.

Thus, considered as a whole, the earliest epigraphic and literary records examined above (as well as many inscriptions from later periods, inasmuch as they preserve many conservative or distinctly archaizing features) provide us with the means to reconstruct with sufficient approximation many peculiarities of Old Latin.

Suffice it to recall, in the field of phonetics/phonology, the general preservation of original diphthongs (save eu which had already evolved into ou), of intervocalic -s- (which had not yet rhotacized) and of numerous word-internal consonantal groups, which were subsequently simplified (e.g. the reduction of -sm- or -xm- to -m-); as for morphology, we should note in the declension of -ole- stems the consistent distinction between dative and ablative (-oilo and -öd, respectively), subsequently neutralized in the classical period, and the inherited distinction between primary and secondary endings in the verbal system (iovesatmitat vs. sied/feced), equally doomed to extinction with the subsequent generalization of the primary endings. As for points of syntax, these are inevitably scanty in light of the brevity and incompleteness of the texts (particularly illuminating in this respect are later documents like élogia Scipiónum or the Senátus consultum de Bacchânălibus). We shall, therefore, limit ourselves to mentioning one unmistakable feature of such texts, albeit more relevant to styistics rather than syntax, namely alliteration, a legacy inherited from the ancient religious formulae and destined to become eternalized as one of the many stylistic devices of the poetic genres.

Accent

Before we proceed to deal with the principal problems of Latin phonetics and phonology, both from an historical perspective and in an ideal synchronic framework, we believe it fitting at this point to touch upon the vexāta quaestio of accent, a problem which has notoriously plagued philologists and linguists for decades, leaving them largely divided in their views. At any rate, if IE accent was free and perhaps predominantly a pitch accent (cf. Chapter 2, p. 113), the historical and prehistoric Latin data – both factual and reconstructed – reveal de facto a different picture in many respects. Passing over Classical Latin, where the presumed emergence of a pitch accent (used in poetry) can be regarded as a contrived imitation of the Greek, as was prosodic terminology itself which reproduced direct calques of the corresponding Greek terms, it certainly appears difficult to conclude with certainty that Latin
once possessed a pitch accent, as undoubtedly was true of Greek. The phenomena of syncope or at least the weakening and subsequent closure of unstressed vowels (suffice it to note the single example *auceps* < *auicaps*, which ideally illustrates both phenomena) undoubtedly bear witness to the existence of a strong stress accent on the initial syllable. The establishment of the so-called ‘Penultimate Law’ did not significantly change this state of affairs either, as witnessed by the evolution of Latin into Romance which is equally fraught with syllabic reductions, which we would find difficult to account for if we were to accept that Latin exclusively possessed a pitch accent. In this respect, we must remember that Plautine prosody also implies a syllable-initial accent in such words as *fäcilius*, *miúlerem*, *séquiminí*, as well as in *Philippus* in certain cases (specifically when the term designates a gold coin, so as to distinguish it from the proper name *Philippus*, where the Penultimate Law is already operative). Perhaps the only really probative testimony of the Latin grammarians at our disposition is that of the famous passage of Pompeius (cf. GLK V, 126,31–127,11). Unhindered by the traditionally concerted attempts to liken Latin to Greek, the passage appears to depict the Latin situation as it actually was. We cite here the passage *in extenso*:

illa syllaba plus sonat in toto verbo, quae accentum habet, ergo illa syllaba, quae accentum habet, plus sonat, quasi ipsa habet maiorem potestatem. et quo modo invenimus ipsum accentum? et hoc traditum est [...] finge tibi quasi vocem clamantis ad longe aliquem positum. ut puta finge tibi aliquem illo loco contra stare et clama ad ipsum. cum coeperis clamare, naturalis ratio exigit ut unam syllabam plus dicas a reliquis illius verbi; et quam videris plus sonare a ceteris, ipsa habet accentum. ut puta si dicas orator, quae plus sonat? ra, ipsa habet accentum, optimus, quae plus sonat? illa quae prior est. numquid sic sonat ti et mus, quem ad modum op? ergo necesse est ut illa syllaba habeat accentum, quae plus sonat a reliquis, quando clamorem fingimus

‘the most prominent syllable of a word is that which bears the accent; thus the accented syllable has a greater resonance, as if it were pronounced with greater force; and by what method do we ascertain the accent of a word? This has also been passed down to us [...] imagine the voice of someone calling someone else far away: suppose for example that someone is standing in front of you at that same distance and that you call him raising your voice. As soon as you begin to call him, you are forced by natural instinct to pronounce one of the syllables of the word with greater stress, and the one you hear resound most loudly is the syllable that bears the accent. Suppose you want to say the word *orator*: which syllable is the most audible? *Ra*, this is the accented syllable. Take *optimus*: which syllable is the most resonant? The first; could it be that *ti* and *mus* are as
resonant as *op? Of course not. Thus the syllable which bears the accent is that which has greater resonance than the others when we imagine we are calling someone.'

Consequently, we conclude that Latin was characterized by a stress accent, whether the latter fell on the first syllable, as our reconstructions of the early linguistic history of Latin lead us to believe, or whether its position was determined by the Penultimate Law, as operative in the classical period. Spurred by the Greek models, the accented syllable in the classical period could at most be pronounced, beside its general increased articulatory force, at a higher pitch than the unstressed syllables. However, the higher pitch played a redundant role, incapable of even preparing the ground for a complete restructuring of a prosodic system which has to all intents and purposes remained intact in the present-day Romance languages.

**Phonetics and Phonology**

We shall first examine the facts most relevant to historical phonetics, as they now appear to be widely recognized in a large number of studies of comparative reconstruction within the field of Indo-European. Subsequently, we shall proceed to sketch a phonological analysis.

**Historical Phonetics**

**Vowels**

We observe the following outcomes and correspondences in initial accented syllables:

IE $a >$ Lat. *a*, cf. *ago*, Gk ἀγω; *ager*, Gk ἀγρός, Skt ajras, Goth. *aks*;

IE $ä >$ Lat. *ä*, cf. *fama*, Dor. Gk φαμά, māter, Dor. Gk μάτηρ, Skt mātar-;

IE $e >$ Lat. *e*, cf. *est*, Gk ἔστι, Goth. *ist*, Skt *asti*; genus, Gk γένος, Skt *janas*;

IE $ê >$ Lat. *ē*, cf. *fēcit*, Gk ἔ-θη-κε; plēnus, Gk πλήρης;

IE $i >$ Lat. *ī*, cf. *videō*, Gk ψιδ-εῖν, Goth. *wit-um*, Skt *vid-mas*; *dix, dicis*, Gk δίκη;

IE $î >$ Lat. *ī*, cf. *vīrus*, Gk Φίος; vivus, Skt *jīvas*;

IE $o >$ Lat. *ō*, cf. *octō*, Gk ὀκτώ, Goth. *ahtau*, Skt aśṭau; potis, Gk πόσις, Skt *patis*;

IE $ô >$ Lat. *ō*, cf. *dōnum*, Gk δῶρον; (g)nōtus, Gk γνωτός, Skt jñātas;

IE $u >$ Lat. *ū*, cf. *iugum*, Gk ζυγόν, Goth. *juk*, Skt yugam; ruber, Gk ἀριστός, Skt rudhiras;

IE $û >$ Lat. *ū*, cf. *fūmus*, Gk θυμός, Skt dhūmas; mūs, Gk μῦς, OHG müs;

Although the presumed original IE vowels generally persist, we should, however, note a whole host of syntagmatically determined innovations characteristic of Latin:

1. $e > i$ when followed by [ŋ], i.e. the groups [ŋk, ŋg] and [ŋn] < [kn]: *tengō > ting(u)ō, Gk τέγγων; *penkw'e > k'enkw'e > quīnque, Gk πιέντε; *dec-nos > dīgnus [nn], cf. dec-er;

2. $e > o$ beside [w]: *newos > novus, Gk νέος; *swesör > *sosör > sorör, Skt svasar-, Goth. swistar; *swekuros > socer, Gk (ṣ)ευκύρος; the same phenomenon obtains when $e$ is followed by [l], i.e. by the elements [la, lo, lu, l + conson. ≠ from l]: *welō > volō, *welti > volt (> volt); *se-luō > solvō; *elaiwa > oliva, Gk ἐλαία(ν)'α, as well as *helus > holus, but in scelus, gelū this change was perhaps inhibited by the slight palatization of c, g, followed by $e$;

3. $o > u$ when followed by [ŋ], cf. uncus against Gk ὄγκος, unguis against Gk ὄνυξ, but note longus where $o$ remains intact, cf. Goth. lags; also when $o$ is followed by [mb], cf. umbo against Gk ὄμφαλος, or [mk], cf. hunc < honc < *hom-ce, and [l]: sulcus against Gk ὕζκος, ulcus < *olkos, Gk ἐλκός, and similarly for volt > vult, colpa > culpa, molta > multa;

4. wo- > we before [r, s, t]: versus, vortex, vortō, voster, votō > versus, vertex, vertō, vester, vetō, a change which seems to have taken place around the middle of the second century BC;

5. $ō > ū$ when followed by [r]: quōr > cūr, für against Gk φύρ.

As far as diphthongs are concerned, the following changes are of interest:

IE $aj >$ Lat. ai > ae (but > ē in rustic dialects) from the beginning of the second century BC, hence > [e:] which, in variations of speech, could undergo 'regularization' to yield [e] or [e:], cf. *ajd' > aedēs (originally 'fireplace'), aestus, aestās, Gk αἰθώ, Skt ēdha-, OHG eit 'stake' (and cf. QLat. aidīlis); laevus against Gk λαές(ν)ς;

IE $ej >$ Lat. ē, passing through the intermediate stage ē, the latter persisting in the country dialects, cf. *dejk- > dīcō, Gk διέκυψα; *bejdh' > fidō, Gk πεῖθω; *ej-ti > it, Gk εἶ-ον, *dejwos > dīvus, but archaic and 'rustic' dēvos;

IE $oj >$ Lat. oi > oe > ū: *ojnos > oinos > oenos > ūnus, Gk ὀὖνη 'one on a dice'; OLat. comoinem > commūnem, coirāvit > cūrāvit, but compare the doublets poena (Gk πονή)/pūniō, moenia/mūrus < moerus and mūniō, Poeni/Pūnicus (Gk Φοίνιξ) and the isolated foedus, which still await an adequate explanation;

IE $aw >$ Lat. au (but often > ū in the country dialects), hence > [ɔ:] which, in variations of speech, could undergo 'regularization' to yield [ɔ] or [ɔ:], cf. *aws- > *awsis > auris, Goth. ausō, Lith. ausis; *awg- > augeō, Gk
αὐλα, and note the oscillation between forms like aulla/olla, cauda/cöda, plaustrum/plöstrum, or, conversely, plödo/plaudö (the latter hypercorrect form being an example of a hyperurbanism);

IE ew > Lat. ou > ū as early as the third century BC, cf. *dewk- > doucō > dūcō, Goth. tiuhan; *ewsō > *owso > ūrō, Gk εὐω, *lewk- > lūx, Gk λευκός, Goth. līwahp 'light'; note the intermediate stage ou > oi exhibited by Faliscan, and sporadically by urban Latin (subsequently yielding oi > ei > i), where between l and a labial consonant (or labiodental consonant, recall, for instance, that Latin f was articulated with a high degree of labialization), ou presumably underwent dissimilation. Thus given IE *lewdhro- 'free', cf. Gk e-Xeufrepog, this obviously yields Howfro-|Howbro- and hence *lojfro-|*lojbro-, as can be inferred from the Faliscan loifritato and the urban Latin liber < *leibros;

IE ow > Lat. ou > ũ, cf. *lowkos 'clearing' > lūcūs (old acc. lovecum); *lowksno- 'shining' > lūna (Praen. losna).

The long diphthongs, which are normally found not only word-initially and word-internally, but also in the desinential case endings, will be discussed in the treatment of Latin morphology.

In unstressed medial syllables, short vowels and diphthongs are subject to particular modifications, which we summarize here in more general terms:

(a) In open syllables all short vowels tend to be systematically raised to i, cf. such alternations as faciō ~ conficiō, cadō ~ occidō (equally evident in a number of Greek loan words, such as Dor. Gk μαχανά ~ μακ(h)ina), sedēō ~ obsideō, legō ~ colligō, locus (< *stlokos) ~ ilicō (< *en stlocōd), novus < novos ~ novitās, caput ~ capitis, manus ~ manica (i obviously remains unchanged: videō ~ invideō, citō ~ incitō). Observe, however, that before f the vowel appears variously as i (as before palatal [f]) or u (as before velar [h]): exilium ~ exulāns, familia ~ famulus, similis ~ simulāre (the same also holds of Greek loan words: scutula ~ σκυτῶλα, crāpula ~ κραυτόλα, paenula ~ φανύλης), and even as o, especially following vowels, cf. filiolus, viola. Moreover, before r the vowel generally appears as e, cf. cineris < *cinises (the same can be said of Greek loan words, cf καμάρα > camera), although an original o persists in many cases or, alternatively, is the result of analogical forces: memoria, pectoris, temporis (although the form temperī is also attested). Finally, before labial consonants the vowel appears variously as i and u, as the following alternations illustrate: incipiō ~ occupō, regimen ~ documentum.

(b) In closed syllables we generally find the changes a > e and o > u, whereas e, i, u remain unchanged, cf. alternations of the type castus ~ incestus, arma ~ inermis (also in Greek loan words like τάλαμον ~ talentum), alumnus < *alomnos, secundus < *sekwendos and, in contrast, the unchanging sessus/
obsessus, dictus/addactus, ductus/adductus. Note, however, the development a > e > i before [ŋ], cf. frangō ~ confringō, tangō ~ contingō, or a > e > u before [h]: calcō ~ inculcō, salsus ~ insulsus, which also explains e > u, equally before [h], cf. percellō ~ perculsus.

(c) As for the diphthongs, note ai > ei > i: aequos ~ inīquos, aestimō ~ existimō; ei > i: *feidō (classical fidō) ~ confido; oi > ē: *postmoirio > pōmērium; au > ou > ü: claudō ~ includō, fraudō ~ deōfridō (arch.), but audō ~ oboedīō remains unexplained; ou > ü: dōucō (arch.) ~ addīcō (this also holds of eu since the latter merged ab antiquō with ou). Observe that the alternation plaudō ~ explōdō confirms that plaudō is a hyperurbanism for the original plōdō.

Finally, points of note with regard to final syllables:

(a) In open syllables, a, e and u generally persist whereas i gives e, e.g. *mari > mare, *anti > ante (Gk ἀντί), and similarly o > e: *sekweso > sequere. Moreover, -i may be lost as in the primary endings of the verb, e.g. tremontī > tremuntī, *esti > est, *sontī > sunt, as well as -e, e.g. dic, dīc, fac, em, as opposed to the canonical forms of the present imperative like lege, cape (the same phenomenon can occur when enclitic particles attach to particular verb forms, cf. vidēsne > vidēn > vidēn with e for correptio iambica). (b) In closed syllables, the following changes occur: a > e e.g. *artifex > arifex, *tibīcan > tibīcen, whereas e is preserved, except before -s and -t where it gives i: *ages(i) > agis, *ager(i) > agit, dedet > dedit, *rēges > rēgis; i and u also persist, in contrast to o which develops into u, except following [u, w]: dominus, aliud, istud, illud, but exiguos, equos, parvos. (c) The treatment of diphthongs in final syllables is parallel to that in unstressed medial syllables, thus aileiloi > ei > i. Compare here the development of the nominative plural desinences of -ole- stems (so-called II declension) and the first-person singular of the active perfect indicative: *lupoi > luei > lupī. *wojdaī > *weidei > wīdi. (d) Finally, long vowels in closed final syllables undergo shortening before -m, -t, -nt, -l, -r (e.g. amēs against amem, amet, ament; tribūnālis against tribūnal; amōris against amor, etc.), as well as in open final syllables (in both nominal and verbal inflection), as a consequence of iambic shortening, attested since earliest times.

Semi-vowels
As for the semi-vowels, it is worth noting the following changes:

IE [j] > Lat. [], which is vocalized following consonants and falls in intervocalic position: * jugom > iugum, Gk ζυγόν, Skt yugam, Goth. juk; *jekɔrt > iecur, Gk ἰκτός, Skt yaktṛ, but *aljos > alius (trisyll.), Gk ἀλλος,
Goth. *aljis; *medhjos > medius (trisyll.), Gk μεδός(ο)ς, Skt madhyā-, Goth. midjis; *treis > *trees > trēs, Gk τρεῖς, Skt trayas, Goth. *preis;

IE [w] > Lat. [w]: *wiro-/wiro- > vir, Skt víras ‘hero’, Goth. wair; *owis > ovis, Gk ὤψις, Skt avas, Gk νέων, Skt navas; *ekhos > equos, Skt aśva; *swādiwi- > suāvis, Dor. Gk (σφ)άδος, Skt svādus. Note that [w] is vocalized in the word-internal cluster -tw-, e.g. *kʷtwor- > quattuor (trisyll.), Skt caṭvāras, and falls entirely in the cluster *swo- < *swe-, e.g. *swesōr > *swosōr > sorōr, *swekuros > *swokuros > socer.

Consonants

We shall now examine the principal phenomena relating to the consonants, beginning, as with tradition, by an examination of the nasals and liquids.

Consonant phonemes prove to be potentially more robust in processes of linguistic change, as a small sample of Latin examples will suffice to demonstrate:

IE m > Lat. m: *mātēr > māter, Dor. Gk μάτηρ, Skt mātār-; *bheromes > ferimus, Dor. Gk φέρομες, Skt bharāmas;

IE n > Lat. n: *newos > novos, Gk νέων, Skt navas; *seno- > senex, Gk ἕνος, ‘of the year before’, Skt sana-;

IE l > Lat. l: *lekw- > lūx, lūceō, Gk λευκός; *klutos > (in)clutus, Gk κλυτός, Skt śrutas;

IE r > Lat. r: *rewdʰ-/*rudʰ- > rūfus, ruber, Gk ῥοῦθος, Skt rudhiras; *bʰer- > ferō, Gk φέρω, Skt bharāmi.

As for the sonants, namely the syllabic nasals and liquids, they underwent the following changes in Latin:

IE n > Lat. em: *kmtom > *kemtom > centum (with m > n before t), Gk ἐκατόν, Skt satam; *dekth > decem, Gk δέκα, Skt daśa; *septm > septem, Gk ἕπτά, Skt sapta;

IE η > Lat. en: *mēnis > mentis > mēns, Skt matis; *tētos > tentus, Gk τὰτός, Skt tatas; *newn > novem (with -m rather than -n by analogy with septem, decem), Skt nava;

IE ι > Lat. ol: *mldu- > *moldwis > mollis, Gk ὀ-μολυ-ν-ω, Skt mrdu-;

IE ο > Lat. or: *mtris > mors, Skt mrīṣis; *krd- > cor, cordis, Gk καρδία; *prk-skō > *porc-scō > poscō;

Sonorants also arose when a strong accent on an initial syllable gave rise to syncope; we list the following examples involving ι (> er), which was particularly affected by this phenomenon:

*agros > *agrs > *agers > ager, *agrolos > *agilos > *agerlos > agellus, *tris > *trōs > *ters > ter.
Without wishing to enter into the problematic area of the IE long sonants, we shall simply mention here the more straightforward examples:

for ē cf. *gēitos > gnātēs, Skt jātās;
for ě cf. *wēna > *wlāna > lāna, Skt ūrṇā, Lith. vilna;

As for the plosive consonants, Latin generally preserved both the voiceless and the voiced series, whereas the voiced aspirates underwent the same changes as those common to most of the IE languages:

IE p > Lat. p: *ped-/*pod- > pēs, pedis, Gk πεδ-, ποδός, Skt pad-; *spek- > speciō, Gk οκέπτομαι (with metathesis of p/k); *septm > septem, etc.;
IE b > Lat. b: *bela- ‘strength’ > de-bilis, Skt balam; *plebiē (he/she) drinks’ > bibit (without non-contiguous assimilation of p > b), Skt pibati;
IE bh > Lat. f and b in initial and medial position, respectively: *bher- > ferō, Gk φέω, Skt bhar-, Goth. bairan; *albhe- > albus, Gk ὀρφευς; in some country dialects we find h- rather than f-, cf. haba against urban faba;
IE t > Lat. t: *trejes > trēs, Gk τρεῖς, Skt trayas; *esti > est, Gk ἔστι, Skt asti; cf. also the change -tl- > -cl-: *pōtlos > pōc(ū)lum, *saitlom > saec(ū)lum, Gk ἄνταλειν (ex-)ancläre, which is also a feature of Late Latin: vet(ū)lus > veclus, test(ū)lum > tesculum. After a consonant, final -t is lost, e.g. *lact > lac, and is voiced after a vowel, e.g. the archaic forms esed, feced (before the generalization of the primary ending -t < *-tī);
IE d > Lat. d: *domos > domus, Gk δόμος, Skt damas; *ed > edō, Gk ἔδωμαι, Skt admi. Note that *dw- > b-: duellum > bellum, duenos > bonus. Final -d falls after long vowels, e.g. lupōd > lupō, mēd > mē, and following consonants, e.g. *cord > cor. Note that in certain dialect forms an alternation between d and l is observed: lingua ~ lingua, dacruma ~ lactrum, odor ~ oleo, sedeo ~ solium;
IE dh > Lat. f and dlb in word-initial and word-median position, respectively: *dhūmos > fūmus, Gk θυμός, Skt dhūma-; *dē- > fecī, Gk ἑ-θη-κα, but *ajd- > aedēs, aestus, aestās, Gk αἰθω, Skt ēdha-. Under certain conditions, dh becomes -b-: (a) before or after -r-: *rudhro- > *rubros > rüber, Gk ἄυρθρος, Skt rudhira-, *werdhō > verbum, Goth. word; (b) before -l-: *stādīlo- > stabulum, with an anaptyctic -u- in the cluster -bl-; (c) after (-)u-: *ūdher ‘breast, udder’ > über, Gk οὐθάρπῃ, Skt ūdhar;
IE k > Lat. k (as one of the centum languages, Latin does not distinguish between pure velars and palatalized velars): *krewōs > cruor, Gk κρέως, Skt kravis; *kerd-/*krd- > cor, cordis, Gk καρδία; *ekwos > equos, Skt aśvas; *ōkā- ‘quick’ > oćior, Gk όκα, Skt āśu;
IE g > Lat. g (same considerations as for k): *steg- > tegō, Gk στήγος ‘roof’; Lith. stogas, ‘roof’; *agō > agō, Gk άγω, Skt ajāmi; *genes > genus, Gk
γένος, Skt janas; *genul/*gonu > genū, Gk γόνυ, Skt jānu;
IE gʰ > Lat. h: *gʰejm-/*gʰ(i)jem- > hiems, Gk γυών; *gʰem-/*gʰom- > homō, humus, Gk χαμί, Goth. gama; *gʰostis > hostis, Goth. gasts. After the velar nasal [ŋ], gʰ appears as g, cf. *ang̥ > angō, angustus, Gk ἀγκω, *dʰejg̥h- > fingō, and as f before u, cf. *gʰew-/*gʰu- > fundō;
IE kʷ > Lat. qu: *kʷi-/*kʷo- > quis, quod, Gk τίς, Skt kās; *sekʷ > sequor, Gk ἐποικ, Skt sacatē; *lejkʷ- > lingō, Gk λείπω. The labial element is lost before o(>u), i and consonants, while in the context -CkwC- the labio-velar falls: *sekʷondos > secundus, *sokʷos > socius, *wokʷos > vōx, coctus against coquō, quīntus (< *-kʷw- -against torqueō;
IE gʷ > Lat. v: *gʷwos > vīvus, Skt vīvas; *gʷem- > venīō, Gk βάινω, Goth. qiman; the b- in bōs < *gʷow- betrays its dialect origin. Observe also the preservation of gʷ after the velar nasal [ŋ], e.g. *ggʷen > inguen, Gk ἀδήν, and gʷ > g (without the labial element) when followed by l, r, e.g. *gʷel-n- > glāns, glandis;
IE gʰʷ > Lat. f in word-initial position, e.g. *gʰʷe-/*gʰʷormo- 'heat' > formus, Gk θερμός, Skt gharma-; *gʰʷen- > (dē)-fendō. Gk θείνω, but > v in intervocalic position, e.g. *snigʷh- > nivem (whereas in nix the velar element is devoiced and the labial falls altogether), and > gu after the velar nasal [ŋ], e.g. *snigʷheti > nīnguit, whereas before r, gʰʷ > f, e.g. *negʷhro- > arch. nefrundines (and Praen. nefrones, but Lanuvian nerbrundines, further proof of dialectal variation).

Spirants: IE s > Lat. s initially and finally and also internally before and after voiceless plosives and after n: *seno- > senex, Gk ἕνως 'of the year before', Skt sana-; *genos > genus, Gk γένος, Skt janas; *wes- > vestis, vestiō, and note sistō, est, vesper, axis, mēnis. A notable phenomenon is the rhotacism of intervocalic s (> [z]) > r, cf. *geneses > generis, *arbosem > arborem, *flosem > flōrem, although this change is absent in borrowed or dialect words like rosa, casa. Where intervocalic s appears in pure Latin words, it is the outcome of the reduction of -ss- > -s- after long vowels and diphthongs: *vīssos > vīsus, caussa > causa, quaessō > quaesō. Before voiced sounds [s] > [z] > θ with compensatory lengthening of the preceding vowel, e.g. *nisdos > *nizdos > nūdus, *prīzos > prīmos > prūmus, and initially sr- > f- and internally -sr- > -br-: *srigos > frīgus, *dˈojesris > fūnebris.

Apophony
Apophony (alternatively termed 'vowel gradation' or 'ablauf') persists in Latin as a residual and little-productive phenomenon inherited from Indo-European, where it undoubtedly played an important role in the morphophonological system and continues as such in Sanskrit, Greek and the Germanic languages. It continues to have an unmistakably marked morpho-
logical role especially in the alternations $\tilde{V} \sim \tilde{V}$ of the verbal system, frequently giving rise to an $\textit{infectum} \sim \textit{perfectum}$ opposition, as well as maintaining some functional distinctions within the nominal declension. Other vocalic alternations, although present in both the nominal and verbal inflection, are, strictly speaking, more pertinent to vocabulary, of which we list the following examples:

$e/o$: $\text{pendō} \sim \text{pondus}$, $\text{tegō} \sim \text{toga}$, $\text{terra} \sim \text{extorris}$, $\text{equc (voc.)} \sim \text{equor (nom.)}$, $\text{dicit (<*dic-e-ti)} \sim \text{dicunt (<*dic-o-nti)}$;

$e/\theta$: $\text{est (<*est-ti)} \sim \text{sunt (<*s-onti)}$, $\text{ed-ō} \sim \text{d-ēns}$ (old pres. part. of $*\text{ed-} \sim \text{the eating} \text{')}$, $\text{gen-ūi} \sim \text{gi-gn-ō}$, $\text{hiems} \sim \text{bēnus}$ (i.e. ‘of two winters’, hence ‘of two years’);

$o/\theta$: $\text{doceō} \sim \text{discō}$ (<*di-de-scō);

$e/o/\theta$: $\text{fido} (<*feidō) \sim \text{foedus (<*foidos)} \sim \text{fidēs}$;

$e/\epsilon$: $\text{emō} \sim \text{ēmi}$, $\text{tegō} \sim \text{tēgula}$;

$e/o/\epsilon$: $\text{fodiō} \sim \text{fōdiō}$, $\text{odium} \sim \text{ōdiō}$, $\text{vocō} \sim \text{vōx}$;

$e/e/o/\epsilon$: $\text{sedēō} \sim \text{sedēes} \sim \text{solium (<*sōd-īom)} \sim \text{sīdō (<*si-sd-ō)}$;

$e/\epsilon/\theta$: $\text{occūlo} (<*ob-cel-ō) \sim \text{cēlō} \sim \text{clam}$;

$e/o/\epsilon$: $\text{maiestās} \sim \text{maius (<*maios)} \sim \text{maiorīm (<*maiosem)}$;

$e/\epsilon$: $\text{honestus} \sim \text{honōrem} (<*honōsem)}$;

$\epsilon/\epsilon$: $\text{nepōtem} \sim \text{neptis}$, $\text{genitōrem} \sim \text{genitōrem}$.

Phonetic Development

Of the various phenomena relevant to the historical phonetic development of Latin, it will suffice to note here the most important phenomena, predominantly processes of regressive assimilation:

the non-contiguous consonantal assimilation in the sequence $*p \ldots k^w > k^w \ldots k^w$: $*\text{penk}^w\text{e} > *\text{k}^w\text{enk}^w\text{e} > \text{quīnque}$, $*\text{pek}^w\text{ō} > *\text{k}^w\text{ek}^w\text{ō} > *\text{quoquō} > \text{coquō}$ (c- with the loss of the labial following dissimilation);

non-contiguous vocalic assimilation: $*\text{hemō} > \text{homō}$, $*\text{pepuği} > \text{pupugi}$, and perhaps $*\text{memordi} > \text{momordi}$;

the devoicing of the voiced plosives before voiceless plosives and fricatives: $\text{āctus}$, $\text{rēctus}$, $\text{tēctus}$ as opposed to $\text{agō}$, $\text{regō}$, $\text{tegō}$ (note also the lengthening of the short root vowel in accordance with so-called Lachmann’s Law, although ultra-short $i$, e.g. $\text{strictus}$ against $\text{stringō}$, and $e$ and $o$ may sometimes escape this lengthening process) and $\text{nūpsī}$, $\text{scripsī}$ as opposed to $\text{nūbō}$, $\text{scribō}$. Observe furthermore that the spelling in such words as $\text{obtineō}$, $\text{subtilis}$, $\text{plēbs}$ and $\text{urbs}$ does not represent the actual pronunciation, that is $[p]$ for written $b$, but is simply a case of analogy in accordance with the desire to render the preposed element etymologically transparent or to safeguard ‘regularity’ within the inflectional paradigm;

the voicing of voiceless plosives and $s$ before nasals ($s$ also before $l$, $r$: in all such cases the spirant falls with compensatory lengthening of the
preceding vowel): segmentum against secō, *sobnos (> somnus, see below) against sopor, prīmus < *prēmos < *prīsmos, cānus < *caznos < *casnos against cāscus, dīruō < *dīruō < *disruō, prēlum < *prelom < *preslom; the complete assimilation of the plosives before the fricative f: officīna < *op(i)ficīna, afferō < *adferō;

the complete assimilation of the dental plosives before the spirant s: assum < *adsum, concussī < *concussā; recall also the reduction ss > s in final position, cf. *milets > miless > miles, *obseds > *obsess > obses, and after a long vowel or diphthong: *suāsī > *suāssī > suāsī, *claudsī > *clauussī > clauussī;

the nasal assimilation of the plosives before n, whereby the plosive becomes the homorganic nasal, namely p/l + n > mn, t/l + n > nn, c/l + n > gn (where g stands for [ŋ]): *sopnos (see sopor) > somnus, *scabnom (see scabellum) > scamnum, *petna (see petō) > penna, adnuō > annuō, *decnos (see decet) > dignus [diŋnus], *legnom (see legō) > tignon [liŋnus];

the nasal assimilation of labial and dental plosives before m: *supmos > *submos > summus, *caidmentom > *caemmentum > caementum (with the reduction mm > m following a long vowel or diphthong);

the assimilation d > l before l: sella < *sedla against sedeō, lapillus < *lapidlos against lapis, lapidās;

the assimilation of n > l or > r: *conloquiom > colloquium, *corōn(e)la > corōlla, *tign(e)lom > tigillum, *conripiō > corripiō;

the assimilation of r > l: *perlaciō > pelliciō, *agerlos > agellus, *ampor-(e)la > ampulla.

Among the most important cases of progressive assimilation, we can include:

the change lsl/rs > ll/rr, which implies an intermediate phase s > [z]: *velse > velle, *colsos > collus, *ferse > ferre, *torseō > torreō; note that farsī from fārciō and fulsī from fulciō/fulgeō betray an earlier *farsī and *fulcī/fulgsī, respectively, and similarly ars from an earlier *artis;


Finally, we shall examine the phenomena of rhotacism and assimilation, namely dl/tt > ss, passing through the intermediate stage *tst with bilateral assimilation: *caditos > cāssus > cāsus (with vowel lengthening in accordance with Lachmann's Law and simplification of -ss- after a long vowel or diphthong), *pattos > passus, *quattos > quassus, *vidtos > vīssus > vīsus, *fidtos > fissus.

Among a number of dissimilation processes, we list here the following:
the change \( l \ldots l > r \ldots l \): \(*caeluleus > caeruleus*;
the change \( l \ldots l > l \ldots r \) as in the change of the suffix \(-alís > -āris\) whenever
attached to nouns already containing an \( l \), e.g. \( cōnsulāris, mīlitāris, 
singulāris \) as opposed to \( mōrtālis, nāvālis, rēgālis \); in the same way, we
find \( calcar, exemplar \) as opposed to \( animal, tribūnāl \);
the change \( r \ldots r > r \ldots 0 \): \(*agrestis < *agrestris \) (the latter is comparable
to \( silvestris \));
the change \( n \ldots n > r \ldots n \): \( carmen < *canmen, germen < *genmen \) (cf. also
\( canō, genuī, \) respectively);
the change \( d \ldots d > r \ldots d \): \(*medidiē \) (loc.) \( > meridiē. \)

We shall list here, albeit briefly, other noteworthy phonetic phenomena which
are essential to an understanding of the linguistic structure of Latin.

First, syncope, caused by a strong initial accent, frequently represents the first
stage of later phonetic changes, e.g. \(*avicaps > auceps, *iovestōd > iūstō, 
*propēr > propēr, *ravīcos > rauclus, *brevīma > brūma, *bīnūgai > 
bigae, *iūveniōs > iūniōr.\) The underlying tendency of this phenomenon,
a truly constant structural factor frequently found in the spoken language
of the classical period (cf. such alternations as \( calidus ~ caldus, balineum ~ 
balneum, porrīgō ~ porgō, surripō ~ surpiō \)) continues unperturbed into
Late Latin and is even responsible for a number of Romance changes, e.g.
\( oculus > oclus, vetulus > vetlus > veclus, \) etc.

The tendency to shorten long vowels in closed final syllables, in particular
before \(-m, -t, -nt\) (but not before \(-s\)) and in polysyllabic words even before
final \(-l, -r\): \( amās, monēs \) against \( amat, amant, monet, monent, \) and \( sāl, fūr 
against \( animal \) (gen. \( animālis), \) \( calcar \) (gen. \( calcāris.\) Note that before
final \(-ns\), vowels are always long, whatever their original quantity
(probably because the vowel was liable to nasalization, see below), e.g.
\( amāns, monēns, legēns, potēns, oriēns, \) whereas before \(-nt\) (even word-
internally) vowels are always short, e.g. \( amantēs \) against \( amāre, monentis 
against monēre, \) etc.

So-called \( correptio iambica, \) as in \( bene, modo, cave, puta \) for \( benē, modō, 
cavē, putā, \) and the tendency to shorten long vowels in open final syllables,
even independently of the iambic structure of the word (at least in the
nominative singular of nouns in \( -ō, -ōnis \) and the 1sg. in \( -ō \) of the verb
paradigm): however, it is difficult to ascertain to what extent these two
phenomena were operative within the linguistic system as a whole, or
whether, rather, they exclusively characterized the poetic genres.

The loss of final \(-d\) after a long vowel: \(*rosād > rosā, *lupōd > lupō.\)

The lengthening of all original short vowels before \( nf/ns, \) e.g. \( infēlix, insānus 
and the wide-range of examples quoted in Cicero’s \( or. 159. \) In fact, in
accordance with a structural tendency of Latin, the nasal consonant in this
position was liable to loss, triggering in this context the nasalization of the
preceding vowel which was perceived as long or, at any rate, treated in on a par with long vowels. From the fact that we can easily reconstruct changes in the early history of Latin like *lupös <*lupons > lupös, *puppës <*puppins > puppis, *manûs <*manuns > manûs, coupled with well-known variations in the spelling of words like cèsor/cënsor, cösoll/cônsul in the early period, we can conclude that the systematic reintroduction of ñ in the literary language of the classical period is presumably due to the endeavour to standardize and maintain, as is usual, analogical and etymological regularity, with the preceding vowel preserving, in any case, its acquired nasal(>) lengthening features.

The presence of an anaptyctic vowel in such words as drac(h)uma < drac(h)um, pölcum < pölclus < *pölclum. The presence of epenthetic consonants such as t in the group *-sr-, e.g. clausstrum < *claußstrom (cf. *claudtrom), and p in the groups *-ml-, *-ms-, *-mt-, e.g. exemplum (cf. *exëmlom), sùmpst < *sùmsì, prömptus < *prömtus. The change *dw- > b-: *dwis > bis, duenos > bonus, duellum > bellum. The loss of the labial element in labiovelars before another consonant, e.g. coctus against coquó, nix < *niq" (cf. *niq", insctio against unguentum). The change *-sr- > -br-, presumably passing through the intermediate stage s > [f] and hence > /f/ in word-internal position in the dialects, as opposed to b in the urban dialect, and preserved in such loans as rûfus, scrôfa, vafer, etc., e.g. sobrûnus < *sosrûnos (the latter related to soror < *sosrû), fûnebris < *fûnesris (cf. fûnestus). The simplification of complex groups consisting of three or four consecutive consonants: *ârsî > ârsi, *fülsî > fûlsi, *fulgmen > fulmen, *ultcos > ultus, *torkmentom > tormentum, *lowksna > lûna, *didscô > discô, *prkskô > *porcscô > poscô, *en stlocôd > tîcô (recall also *stlîtis > arch. stlîs > lis), *skandsla > scâla, etc. The loss of a whole syllable through dissimilation: *cônsuètidô < *cônsuètidô, *honestitâs > honestâs, *portûtirion < portôrium, *sêmimodios > sêmódios, occlusitîs > occlusîtis, scrîpsîtîs > scrîpsîtì, accessîtis > accessîtis, évastîs > évastì, mîstìs > mîstìs, cônsumpsisse > cônsumpe, etc. Metathesis, for which we shall mention here two examples, recorded, so it seems, even by literary tradition: accersô for arcessô and pristmum for pirstnnum ‘mill’.

Phonological System
Having examined the essentials of historical phonetics, we shall now reconstruct the phonological system of Classical Latin, where the latter is understood to cover a period extending from the end of the Republican Age to the beginning of the Imperial Age. Obviously, Latin being a dead language, all such reconstructions, however cautious one endeavours to be, will inevitably be liable to a considerable degree of arbitrariness. A strictly more accurate approach, taking into account the Latin diasystem and the range of

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The presence of an anaptyctic vowel in such words as drac(h)uma < drac(h)um, pölcum < pölclus < *pölclum.
diastatic and diatopic varieties, reveals the following picture.

**Twelve vowel phonemes**: two central vowels, five front vowels and five back vowels, which considered together exhibit four (but one could just as well argue for five) levels of aperture, namely /a/, /a:/, /e:/, /e/, /o:/, /u/, /u:/.

We should note that (1) the long vowels (except /e:/ and /o:/) and short vowels, with their presumably characteristic tense and lax pronunciations, respectively, tended in the former case to maintain their original closed quality, whereas the latter (except /a/) progressively acquired a more open quality, ultimately leading to the situation found in Romance; and (2) the long and lax vowels /e:/ and /o:/ were, as such, extremely unstable sounds and liable to be reinterpreted in ‘educated’ or ‘popular’ speech, in terms of length or laxity, respectively. Hence, in educated speech they were reinterpreted as long and closed, and in popular speech as open and potentially (although not necessarily) short, if it is true that of the two originally concomitant oppositions, long ~ short and tense ~ lax, only the first played a functional role in educated speech. On the other hand, only the tense ~ lax opposition had a distinctive value in popular speech, since vocalic quantity was determined in accordance with the different vocalic structure: \( \ddot{V} \) in open syllables, \( \ddot{V} \) in closed syllables. That being said, we can, in addition, think of [e], [i], [o], [u] as frequent allophones of /e/, /i/, /o/, /u/, respectively, and [e]/[i], [o]/[u] as probable allophones of /e:/ and /o:/, respectively. Appropriately, we should recall that /e:/ and /o:/ were the outcome of the monophthongization of the diphthongs ae and au (at first limited to the country dialects with subsequent extension to the urban dialect), or the result of foreign influence through a number of Greek loan words containing η or ω, notoriously long vowels and more open than the corresponding original Latin long vowels. Thus it is not by mere chance that such words as Κύμη, σκηνή, σκηπτρον are transliterated as Cúmae, scaena, sceptrum, clearly indicating that the digraph ae increasingly represented the phone [e:], in addition to the diphthong which presumably persisted in the most formal registers.

Whether [y] (and possibly [y:]) should be included in the inventory of vowel phonemes is a problem for which it appears difficult to provide a satisfactory answer. [y], which was undoubtedly an allophone of [i] (the so-called sonus medius, continually alluded to by the Latin grammarians), can only be justifiably accorded phonemic status if we take into consideration the numerous Greek loan words where its occurrence was not determined by context. Moreover, given the rarity of minimal (or near minimal) pairs such as cytē (dat.) ‘kind of precious stone’ ~ citē and cytē ~ cutē, Pylē ~ pīlus, Lydēs ~ līdus, etc., and, hence, the low functional load of such oppositions as /yl/ ~ /l/, /yl/ ~ /ul/ (as well as /yl/ ~ /l/, /yl/ ~ /ul/), it clearly seems dubious whether y and ſ can be integrated into the inventory of Latin vowel phonemes.

In addition we could postulate, although this is equally a delicate matter of interpretation, the existence in Latin of a series of long nasalized vowels,
namely /ä:/, /e:/, /ö:/, /ü:/, occurring in the word-final sequences -am, -em-, -im, -om, -um, and in the word-initial and word-internal monemes in the contexts V + nf/ns (V + ns also in word-final position). In fact, the phonemic status of /ä:/, /e:/, /ö:/, /ü:/ is suggested by: (a) epigraphic documents characterized by the omission of -m and -n- in the contexts quoted above; (b) the testimonies of Cicero and the grammarians regarding the length of the vowel preceding nf/ns, the latter confirmed by the spelling with an apex attested in inscriptions; and (c) the treatment of -Vm in poetry which could be entirely integrated into synalloepha or a hiatus on a par with long vowels (and where, in agreement with Quintil. 9, 4, 40 and Vel. Long. GLK VII, 80, 17, we are forced to conclude that the nasal sound was not an autonomous phoneme but, rather, an intrinsic distinctive feature of the vowel). This conclusion is further supported by minimal pairs in which there arise a number of functional oppositions both in vocabulary (cf. such examples as möns ~ mös, dëns ~ dës) and especially in nominal and verbal morphology (cf. such examples as rosam ~ rosä, rem ~ rë, pumppim ~ puppi, equom ~ equö, manum ~ manü, amänns ~ amäss, monëns ~ monës, legëns ~ legës, audiëns ~ audëës, etc.). Furthermore, we know how, in the interests of the usual principles of analogical and etymological standardization and paradigmatic transparency in the field of inflection, nasals tended to be reintroduced in all those positions in which they were signalled by learned spelling. This justifiably casts doubt on the claim that long vowels were generally realized with nasalization. However, in the absence of more concrete evidence, it will suffice to have at least raised the problem.

Two semi-vowels, namely /j/ and /w/, with respective allophones [i] and [u], as witnessed by the poetic genres (cf. for [i] the trisyllabic scansion of Caius and the bisyllabic genitives in -ätäi, found as early as Lucretius and Virgil, where we should expect [gajjus] and the diphthong [aj], and for [u] cf. such alternations as lärva ~ lärua, silva ~ silua). The phonemic status of /j/ against /l/ appears at least to be assured by such sequences as iam- and iüül- (cf. the oppositions iam [j] ~ iambus [i], Iülius [j] ~ Iülus [i]), whereas the phonemic status of /w/ against /u/ is overwhelmingly demonstrated by such oppositions as alvö ~ alüü, calvö ~ calüü, salvö ~ salüü, servö ~ serüü, volvö ~ volüü (and, in the case of the voiceless labiovelar realized as [kw], by pairs like acquäs ~ acquüas, sequi ~ securi). It should be remembered that in some contexts [j] and [w] are allophones respectively of /l/ and /u/ (cf. the bisyllabic scansion of abiês, ariës, battûo, or the trisyllabic scansion of insidiae, principium, fortüitus, püütüta), and that in intervocalic position /j/ in contrast to /w/, is invariably realized as [+ tense] (e.g. maiör [majjor], peior [pejjor], cuius [kujuus]). Note, finally, that on the basis of the testimonies of a few grammarians, it is possible to postulate the existence of the allophone [u] for the phoneme /w/. The semi-vowel e [e], as found in the second element of the diphthong ae (the latter certainly coexisted alongside ai – which was earlier and originally bisyllabic – in the poetic genres and the most formal styles,
whereas in the Umgangssprache it was being systematically replaced by [e:] in accordance with the overwhelming processes of monophthongization), clearly must be classed as an allophone of the phoneme /j/.

Eight plosive phonemes, namely /p/, /b/, /t/, /d/, /k/, /g/, /kw/, /gw/. Observe that the phonemic status of the labiovelars appears to be assured by minimal pairs like sequor ~ secor, loquor ~ locor, anguis ~ angis, pinguis ~ pingis (where the distinctive value is provided, in Jakobsonian terms, by the presence ~ absence of the feature [flat]), which could be realized also as [kw] and [gw], respectively.

Three fricative or spirant phonemes, namely /f/, /s/, /h/, the latter, strictly speaking, an aspirate, also engenders a few problems with respect to its exact classification. Although its phonemic status is assured by such minimal pairs as haúrí ~ aurí, haústri (gen.) ‘a bucket for drawing water’ ~ aústri (gen.) ‘the south wind’, hortus ~ ortus, hós ~ òs, hostium ~ òstium (near minimal pair), it should not be forgotten that its ‘correct’ realization, apart from Hellenized uses and hypercorrect reactions to rústicitās, both typical of parvenus such as Arrīus in Catullus’ famous epigram, was increasingly restricted to the educated classes and to strictly formal registers. Yet, in actual fact, h was exclusively restricted to occurring in word-initial position (recall, in this respect, that the presence of the word-internal grapheme h denotes either a simple hiatus, as in ahenus, cohors, trahō, vehō, or in compound words serves to maintain the ‘etymological transparency’ of the lexical components, e.g. cohortāri, exhaunre, inhūmānus, prohibēre).

At least two nasal phonemes, namely /m/ and /n/: in consonant clusters it makes more sense to talk of the archiphoneme /N/, since the nasal consonant is homorganic with the following consonant, variously realized as [m], [n], [ŋ] or [ŋ]. Recall in this respect that the graphemic sequence gn was pronounced [gn] in word-initial position, as in gnārus, gnāta, but [ŋn] in word-internal position, as in dignus, lignum. Based on the latter examples, we could justifiably argue for the phonemic status of [ŋ] in Latin, as confirmed by such minimal pairs as agnus ~ annus, ignēs ~ innēs (subj.) ‘that you may float’, pingus ~ pinus ‘sharp’, magnus ~ mannus ‘a small horse of Gaulish breed’, although, on the whole, the opposition /ŋ/ ~ /ŋ/ has a very low functional yield and a limited distribution.

Two liquid phonemes, namely /l/ and /r/: as recognized by the Latin grammarians, /l/ had a velar allophone [l] (termed l pinguis as opposed to l exitis) whenever it was followed by a back vowel or a consonant, in which case it influenced the quality of the preceding vowel: familialis < famulus, Sicilia < Sicillus, velle, velimvult < volt. As for /r/, there was a tendency in word-internal position for short vowels before /r/ to develop into e, cf. the systematic development of *-is- > -er-, as in cineris, pulveris against cinis, pulvis, lēgerunt against lēgistis, or cases like reddere, trādere against dare, peperī and reperī against pariō.

Here we can only briefly mention the problem of geminate consonants,
occurring in nominal and verbal compounds (usually the result of an earlier assimilation process) and in simplex words. In the latter case, this frequently gave rise to alternating doublets, where the sequence VCC coexisted alongside its equivalent VC sequence: *bacillum*, *cuppa*, *litus/littus*. In fact, the correlation between single and geminate consonants had a certain functional yield in Latin, ensuring the survival of consonantal quantity as distinct (even though this distinction was far from being as relevant as vocalic quantity), as can be inferred from such oppositions as *ager* ~ *agger*, *collis* ~ *collis*, *colum* (acc.) ‘distaff’ ~ *collum*, *anus* ~ *annus*, *ferrum* ~ *ferrum*, *terās* ~ *terrās*, *valēs* ~ *vallēs*, *velit* ~ *vellit*, etc. Note that in the opposition /s/ ~ /ss/, the preceding vowel is invariably short in the latter case but long in the former, such that the change *-ss- > -s-*, following a long vowel or diphthong (although we still find *divissio* and *caussa* in Cicero) can bring about near minimal pairs like *cāsus* ~ *cassus*, *fissus* ~ *fissus*. This situation was not too far removed from that of pre-Romance where vowel quantity was determined by the following single or geminate consonant and, more generally, by syllabic structure, namely long vowels in open syllables and short vowels in closed syllables. Moreover, it should be pointed out that in many cases consonantal gemination presumably had a highly phonostylistic function, carrying certain connotations associated with the uneducated speech of the masses and those varieties characterized as [-formal] and [+affective].

We shall now illustrate with some relevant examples the functional load of those oppositions based on vowel quantity, relevant to both lexis and nominal and verbal morphology.

\[ \text{/a/ ~ /a:/ ~ /a:/} \]
\[ \text{malum ~ mālum, plaga ~ plāga, rosa ~ rosā ~ rosam, and the} \]
\[ \text{stem oppositions between present and perfect, e.g. cav- ~ cāv-, fav- ~ fāv-,} \]
\[ \text{lav- ~ lāv-;} \]

\[ \text{/e/ ~ /e:/ ~ /e:/ ~ /e:/} \]
\[ \text{edes ~ ēdēs ~ aedēs, est ~ ēst, equos ~ aequos, es ~ ēs} \]
\[ \text{~ aes, levās ~ lēvās ~ laevās, arte ~ ārtē ~ ārtae ~ ārtem, rē ~ rem, and} \]
\[ \text{such oppositions between present and perfect as emīt ~ ēmit, legīt ~ lēgit,} \]
\[ \text{venīt ~ vēnit, or less frequently verb stem oppositions, e.g. sed- ~ sēd-;} \]

\[ \text{/i/ ~ /i:/ ~ /i:/} \]
\[ \text{dicō ~ dicō, fidēs ~ fīdēs, liber ~ liber, is ~ īs, vi ~ vim, vīvis} \]
\[ \text{~ vīvis, as well as the usual oppositions between the present and perfect} \]
\[ \text{verb stems, e.g. vid- ~ vīd-;} \]

\[ \text{/o/ ~ /o:/ ~ /o:/ ~ /o:/} \]
\[ \text{os ~ ēs, colō ~ cōlō, solum ~ sōlum, equos ~ aequōs,} \]
\[ \text{equō ~ equum, ēris ~ āris, lōris ~ lūris ~ lauris, and the oppositions} \]
\[ \text{between the present and perfect, e.g. fodīt ~ fōdit, or less frequently} \]
\[ \text{oppositions in the verbal stem, e.g. fōv- ~ fōv-, mov- ~ mōv-, vōv- vōv-;} \]

\[ \text{/u/ ~ /u:/ ~ /u:/} \]
\[ \text{ducēs ~ dūcēs, lustrum ~ lūstrum, fructus ~ fructūs, lacū ~} \]
\[ \text{lacum, as well as the usual oppositions between present and perfect like} \]
\[ \text{fugit ~ fūgit, or less frequently between verbal stems, cf. iuv- ~ iūv-;} \]

To conclude, typologically it is interesting to note that in terms of its
phonetico-phonological structure Latin is generally quite conservative, as regards its vowels, with respect to the characteristics and features that presumably distinguished Indo-European, whereas in terms of its consonants, we witness the loss of aspiration and a number of markedly innovatory processes.

**Morphology**

In the nominal declension Indo-European distinguished eight cases (nominative, vocative, accusative, genitive, dative, ablative, locative and instrumental), which Latin simplified through processes of syncretism to six cases. In addition to its own original functions, the ablative assumed the functions of the instrumental and locative cases, though isolated locative case forms do survive in Latin. Thus, a number of semantic specifications came to be signalled through the use of prepositions, especially in the least formal registers, a process which was to characterize the descendant Romance languages. In addition, the three genders (masculine, feminine and neuter) persist, whereas, within the grammatical category of number, the dual distinction is lost, leaving but only a few traces.

**Declension of Nouns**

The traditional five Latin declensions are the result of a complex reorganization of the various IE declensional classes, which can be classed into stems ending in -ä, -ole-, -ej(o)j/i -, -ew(ow)/u-, -T-, -ü-, -ej-, -äw-, -ew-, -ow-, and various stems ending in consonants. Without repeating the inflectional paradigms of the so-called five Latin declensions set forth in the standard grammars, we shall restrict ourselves to commenting on the individual case desinences.

As far as singular number is concerned, the nominative of masculine and feminine nouns may end in -s, but may equally be characterized by the absence of any specific desinence. We can, therefore, distinguish between such forms as parricidas, lupus, equos (where, it will be remembered, the presence of the labiovelar, or rather the biphonemic sequence [kw] < IE *-kw-, precluded -o- from raising to -u-, as happened elsewhere), mōns, collis, fructus, diēs and such forms as rosa (where the generalization of final short -a < *-ā is undoubtedly due to the influence of suffixed stems in -ia, e.g. audācia, praeentia, etc. – where presumably the final vowel was short ab antiquō – as well as the analogy with the nominative in -us of -ole- stems, the need to distinguish the nominative from the ablative in -ād following the loss of -d, and correptio iambica), sōl, für, cōnsul, soror, homō, līen (note also that stems in -ro- end in -er in the nominative in accordance with well-known phonetic processes, e.g. *pueros > *puers > *puerr > puer, *agros > *agrs > *agers > *agerr > ager). As for neuter nouns, the nominative desinence (which is not distinguished from the accusative and vocative) for -ole- stems ends in -m (only in -s in the words pelagus, vírus and vulgus), e.g. lignum,
whereas for all other stems (except those in -ä and -ē-, which do not include neuters) there is no one single characteristic nominative desinence, e.g. genus, caput, nömen, mare, cornü, etc.

The vocative usually coincides with the nominative, except for masculine and feminine nouns in -ole- with nominative in -us, e.g. domine, and the special cases of fili, Públi, etc. which have nominative in -ius.

The accusative of masculine and feminine nouns (in neuter nouns, the accusative is not distinguished from the nominative) ends in -m in the case of vocalic stems and in -em < *-m for consonantal stems, e.g. rosa-m, lupu-m (< *lupo-m), equo-m, classe-m (< *classi-m), puppi-m, fructu-m, die-m, mont-em, rēg-em.

The genitive ending in -f (also attested in Celtic) found with -ole- stems (which also had a genitive in -osio, cf. the forms Popliosio Valesiosio in the inscription of Satricum near Anzio and similar developments in Faliscan) had long spread to the -ä and -ē-stems, whereas the genitive of all other stems ends in -sl-is < *-es (-os in certain dialects), e.g. dominī (with the loss of the stem vowel -o-), rosaе < rosai < rosā-ī, dīē-ī, but rēg-īs < *rēg-es, manū-s < *manou-s (and the archaic and/or dialect forms senātu-os, senātu-is). Observe that classis was remodelled analogically on consonant stems like rēg-īs, since as an -i- stem, we should expect *classis (< *classi-es), and that -s appears sporadically in -ä and -ē-stems, cf. the archaic forms familiās and diēs (Ennius, Ann. 413), respectively. It is likely that the extension of -ī to -a stems began with the masculine nouns of the -ä class in phrases like bonī *agricolās, which by analogy became bonī agricolāī and ultimately > bonī agricolae.

As for the dative, we can distinguish two main desinences according to the declension class: stems in -ä, -ole- and -ē- form their dative by adding the ending -i to the lengthened stem vowel, e.g. rosaе < rosai < *rosā-ī (recall that, in contrast to the genitive, -ai is never bisyllabic, except in aquāi in Lucr. 1, 453, and that dialect forms in -ā are also attested, e.g. Diānā, fortūnā, Loucīnā), lupō < *lupō-ī, dieī (but the forms dieī, dīēi and dīē also exist) < *diē-ī, whereas all other stems form their genitive with the ending -ī < *-ēj, cf. rēg-ī, classī < *classi-es, manū-ī < *manou-s (but in poetry manū is also found, no doubt formed by analogy with lupō, classī).

As for the ablative, -ole- stems add -d to the long vowel of the stem, e.g. *lupō-d, with subsequent loss of the final -d, yielding the classical lupō. This -d then spread analogically to the stems in -ā (which in Indo-European did not distinguish between the ablative and genitive), e.g. *rosā-d > rosā, and to the stems in -ilej- and -ulow-, e.g. loucarīd, *classi-d > classi, *manū-d > manū, but failed to spread to the stems in -ē- (even if the Faliscan foied, equivalent to hodiē, might not altogether rule out this possibility). In consonant stems the ablative was formed by adding the ending -e (without final -d which would have been preserved following a short vowel), e.g. rēg-e, spreading analogically to the -ilej- stems, cf. the well-documented
Finally, the locative was formed by adding the ending -\( i \) to stems in -\( \ddot{a} \) and -\( \textit{ole} \)- (in the latter case, by adding -\( i \) to the stem vowel in -\( e \)-), e.g. \( \textit{Römä-i} \), \( \textit{Tusculi} \) < \( \textit{Tuscul-e-i} \), and -\( i \) < -\( *-ej \) to consonant stems, e.g. \( \textit{Carthäginî, rüri, temperti} \).

The plural declension can be summarized as follows: the nominative and vocative of masculine and feminine nouns was signalled by the ending -\( i \) < -\( ei \) < -\( *-oj \) in -\( \textit{ole} \)-stems (which borrowed this marker from the inflection of the demonstratives, the early ending of these stems and those in -\( \ddot{a} \) being -\( *-es \), hence -\( *.oes \) > -\( *-ös \), -\( *-äes \) > -\( *-äs \), as witnessed by the Italic languages). The -\( *-oji \) phase was equally responsible for the corresponding -\( *-äi \) ending, which clearly spread by analogy to the stems in -\( \ddot{a} \), e.g. -\( *rosäi \) > -\( *rosai \) > -\( *rosae \), *\( \textit{lupoj} \) > -\( lyni \) > -\( *lypey \); the same phonetic development can be seen in forms like \( \textit{pilumnoe, poploe, fesceno} \) (cf. Festus and Paulus Diac.) and in epigraphic evidences such as \( \textit{foideratei, oinuorsei, uirei} \) (cf. \( \textit{Sen. Côns. de Bacchânâli-bus} \) and many other inscriptions from the Republican Age). However, traces of the ending -\( *-ös \) do persist, as in Pomponius’ \( \textit{laetitiäs inspērātäs} \) 141 and the Pisaurian form \( \textit{matrona} \) (CIL I 2 378) for -\( *-ös \) with ‘rustic’ loss of final -\( s \). It should not be forgotten that in various provincial areas -\( \textit{ole} \)-stems sporadically exhibit -\( *eis \), -\( *es \), -\( *is \), e.g. -\( *magistreis \), -\( *coques \), -\( *ministris \) (all epigraphic attestations), as a result of the contamination between -\( eil- \) and the -\( s \) of the early ending -\( *-ös \). All other stems have -\( *-es \), which in the case of stems in -\( *ilei \)- and -\( *e- \) gave -\( *es \), e.g. -\( *classei- \) < -\( *classei-es \), -\( *res \) < -\( *rē(i)-es \), with the result that -\( *es \) was extended analogically to consonant stems, e.g. -\( *rē-gēs \), (originally -\( *rēges \), cf. Gk \( \textit{xśπυx-ές} \), Osc. \( \textit{humuns} \)). Note furthermore that in the case of stems in -\( *ulow- \) we should expect -\( *manues \) (\( *manuis \) < -\( *manoues \), whereas the only attested form -\( *manüs \) must be explained in relation to the accusative form -\( *manüs \), on which the nominative was remodelled by analogy with the consonant stems, where the ending -\( *es \) marked both nominative and accusative. As for neuter nouns, where the nominative coincides with both the accusative and the vocative, we systematically find -\( a \), e.g. -\( *templa \), -\( *capita \), -\( *genera \), -\( *maria \), -\( *cornua \), etc. (but with traces of -\( *-ā \) – clearly alternating with -\( a \) and whose derivatives are well attested in the Italic languages – in the now indeclinable numerals -\( tīgintā \), -\( quadrāgintā \), etc., more accurately ‘three, four sets of ten’) which presumably designated a singular collective noun, as in Greek which retains third-person singular verb agreement in such cases.

As for the accusative, masculine and feminine nouns with vowel and consonant stems have respectively -\( *-ns \) (with loss of -\( n- \) and subsequent lengthening of the preceding vowel when short) and -\( *-ns \) (with the development > -\( *-ens > -*-es \), e.g. -\( *rosā-ns > rosās \), -\( *domino-ns > dominōs \), -\( *duc-ns > *ducens > ducēs \), -\( *classi-ns > classēs \) (then > -\( *classēs \) by analogy with -\( *ducēs \), -\( *manu-ns > manūs \), -\( *rē(i)-ns > rēs \).

The original genitive ending for all stems in -\( *-om \) was replaced in
Old Latin by the pronominal ending *-söm in -ā and -ole- stems, yielding, with rhotacism of intervocalic -s-, the classical endings -ārum and, by analogy, -ārum (evidence for the original endings for these stems is provided by the forms agricolum and Grāiugenum, found respectively in Lucretius and Virgil, as well as socium, Rōmānōm, deum, dīvom, liberum, virum, numnum, ītgerum, etc.). Very early this ending was analogically extended to -ē-stems, e.g. rērum, diērum. Consonant stems thus show -um: duc-um, rēg-um, classi-um, manu-um (although the forms manum, currum, passum, formed analogically on numnum or rēgum, are also attested).

Finally, in the dative, ablative and locative cases, the -ā stems have *-ā-is > *-ajs > -eis > -īs, traceable to the IE instrumental ending, cf. soueis aastutieis attested in the famous slate of the Faliscan cooks, rosīs, grātīis, etc., and -ole- stems have *-o-is > -eis > -īs, cf. oloes for ills preserved in Festus’ epitome of Paul. Diac., agreis, aneis, lūdeis, lūpis, etc. Both stems attest to sporadic forms in -bus < *-b’os (cf. deābus, fīliābus, and generibus for generīs in Accius), equally visible in the Skt dat./abl.pl. aśvābhyaś ‘equābus’ and Skt instr. pl. aśvābhīs, which are common to all the remaining stems, e.g. classi-bus and, by analogy, rēg-i-bus, and hence manu-bus, cornu-bus (with variations presumably due to the need to render the sonus medius that could occur in labial contexts, and to simple analogy, e.g. manibus, cornibus and normally only fructibus as opposed to arcubus, artubus, partubus, quercubus, tribubus), diē-bus, rē-bus.

Numerous analogical processes appear to have occurred within the Latin nominal declension, especially in the so-called third declension which is a result of the merger of the inflectional paradigms common to the -i/ei-stems on the one hand and the consonant stems on the other. When compared against the backdrop of other IE languages, the Latin data reveal a number of undoubtedly innovative and, at the same time, ‘regularizing’ processes. Additional examples include the fate of the early class of neuter nouns characterized by the -rln- alternation, as in femur/feminis (the ‘standard’ femoris was not established until quite late). However, this alternation was analogically ‘regularized’ in such words as iecur (gen. iesoris and iecinoris [iocineris] which must have blended with the original form *iecinis) or iter where the older *iitis and the analogical iteris (attested in early times) combined to produce the genitive itineris. Finally, we should remember that there was a tendency, already apparent during the Republican Age, for a certain number of nouns originally belonging to the -e- and -oulou- stems to merge with the large and productive classes of the -ā and -ole- stems, respectively.

Declension of Adjectives
The declension of adjectives does not readily diverge from that of nouns. Traditionally, the following three classes are distinguished:
(a) a class of adjectives in which the feminine follows the inflectional paradigm of -ä stems, and the masculine and neuter that of -ole- stems, e.g. such adjectives as bonus, -a, -um, liber, -era, -erum, pulcher, -chra, -chrum, etc.;

(b) a class of adjectives whose inflectional paradigms are identical to those of -ilei- stems, namely such adjectives as äcer, äcris, acre, fortis, -e, audäx, -äcis;

(c) a class of adjectives which follow the inflectional paradigm of the consonant stems, namely adjectives like inops, -pis, vetus, -eris, etc.

Present participles such as amäns, ferëns, which originally exhibited two distinct inflectional paradigms with the feminine following the pattern of -ilei-stems (*amänti-s, *ferenti-s) and the masculine and neuter that of the consonant stems (*amänt-s/*amänt, *ferent-s/*ferent), soon merged with the generalization of the inflectional paradigm of -ilei- stems. The dual form of the ablative singular (in -I/-e), which served to distinguish respectively between the distinct adjectival and verbal values of the present participle, clearly betray, albeit residually, the earlier existence of two distinct inflectional paradigms. More generally, one cannot fail to note the unmistakable Latin tendency to eliminate progressively the masculine ~ feminine distinction from the adjectival declension. This was systematically the case with the present participles, a fact which clearly acquires importance in light of its innovative character. Finally, we should recall that all adjectives in -ä and -ole- formed ab antiquö their genitive plural (as well as their genitive and dative singular in some cases, as we shall see) from the ending drawn from the demonstrative pronouns, a fact which clearly contributed to the extension of this ending to those nouns with the same stem.

The Degrees of Comparison of the Adjective
Alongside the analytic type of comparative formed by placing magis (or plüs, attested in earliest times but not commonly used until the Imperial Age) before the adjective in the positive degree, the predominant form found in the Romance languages, the synthetic comparative is well documented in Latin and was formed at first by adding the IE suffix *-jös- directly to the root. This is proven beyond doubt by examples like maior < *mag-jös as opposed to magnus < *mag-no-s, and similarly for nêquior, propior, senior as opposed to nêquam, propinquos, senex. However, the attachment of the suffix to the stem of the positive generalized very quickly. The regular process of rhotacism of the intervocalic sibilant, -s > -r-, was generalized through the declension and analogically extended to the nominative masculine/feminine singular with shortening of the originally long vowel: *mag-jös-es > maioris, with analogical nominative maior < maiör (< *mag-jös), and neuter maius < maios < *mag-jos with preservation of the sibilant and the original short vowel (had the vowel in fact been long, it would have been regularly
preserved before final -s; observe, incidentally, that early neuter forms in -r like prior, posterior, used by the early historians and perhaps analogous to neuter nouns like aequor, marmor, were short-lived).

Another IE suffix, *-tero- (*-ero-/*-tro-), contrastive and separative in function and equally well documented in Greek, survived in Latin in such forms as inferus, superus, exterus (but not *interus!), dexter, sinister, posterus, as well as in alter, uter, noster, vester (a number of such forms also survive in the Italic languages, but cf. in particular such Greek examples as ἐπερος, ἐντερος, δεκτερος, ἀειτερος, ἐτερος, ποτερος, etc.: cf. Chapter 2, p. 64) and in the nouns magister, minister. That this suffix was no longer associated with any particular value in the linguistic consciousness of speakers is demonstrated by the existence of etymologically double comparative forms like inferior, superior, exterior, interior. It should be observed that originally minor/minus was not a true comparative at all, but, rather, gradually acquired its comparative value and function, with respect to parvus, through its meaning ‘diminishing’, closely related to the verb minuō.

Finally, it must not be forgotten that originally the Latin comparative in -ior-/i- us had an ‘intensive’ value, such that Aemilius Iulio doctior est means that Aemilius is quite educated, he has attained a certain degree of education with respect to Iulius, the standard of comparison, and hence ‘Aemilius is more educated that Iulius’.

The Latin superlative is essentially characterized by the suffix *-mo-, which originally indicated the extreme member of a group, in particular with spatial reference (thus its meaning was closely related to that of the ordinal numbers). It could, however, be preceded by other suffixes, e.g. *-o-mo-, *-so-mo, *-to-mo-, *-is-so-mo-, where the penultimate vowel, raised due to a strong initial accent, must have represented the sonus medius [y] variously attested by grammarians and apparently confirmed by the variation in spelling between forms with u and i.

Examples of the suffix *-mo- includeimus, dēmus/dēmum, primus < *prīmos, summus < *sup-mos, extrēmus, postrēmus, suprēmus, respectively derived from the old instrumental forms *extrē-, *postrē-, *suprē- (for -ē cf. adverbs like certē, in which the old instrumental desinence can also be observed), and probably minimus < *minu-mos. For the suffix *-o-mo- we can cite infimus and postumus, and for *-so-mo-, maximus < *mag-so-mos, pessimus < *ped-so-mos, proximus < *prokʷ-so-mos (cf. prope < *prokʷe), pulcherrimus < *pulcher-so-mos< *pulchr-so-mos < *pulchro-so-mos, ācerimus < *ācer-so-mos < *ācr-so-mos < *ācr-ī-so-mos (with usual -o- > -i- in medial unstressed position, the development of -e- before -r-, and the assimilation of -rs- > -rr-, and the assimilation of -ls- > -ll-, gracillimus, humillimus, similimus. As for the suffix *-to-mo- we can cite citimus, extimus, intimus, ultimus, optimus (and finitus, maritimus), and for the suffix *-is-so-mo-, the most typical form of the Latin superlative, such forms as altissimus, fortissimus, etc.
Some adjectives have suppletive forms of the comparative and superlative which are not formed on the stem of the positive grade, e.g. bonus ~ melior ~ optimus, etc. By close analogy with the comparative periphrasis formed with magis (formed from the stem *mag- with adjunction of *-is-, the reduced grade of the IE suffix *-jes-/*-jōs-) or plās (<*plois), there exists an analytic superlative formed by placing maximē before the adjective in its positive grade.

**Demonstrative Pronouns and Adjectives**

As is well known, Latin possessed a well-structured system of demonstrative elements: parallel to the Italian questo, hic indicated proximity to the speaker, while iste, corresponding to the Tuscan codesto, indicated proximity to the interlocutor, and ille, like the Italian quello, expressed remoteness with respect to both participants of the speech act. Is, which functioned largely like ille, cannot be wholly defined as a demonstrative since it is closely related to the relative pronoun quī, to which it referred both anaphorically and cataphorically. More generally, these demonstratives tended to assume strengthened forms either by the attachment of deictic elements like -ī and -ce, or frequently by the combination of reinforcing elements like ecce, eccum, which give Romance forms like Fr. cet, It. questo, quello, etc. The declension of these elements follows that of -ole- stems in the masculine and neuter and -ā stems in the feminine, combining both features of nominal inflection and inflectional features particular to the demonstratives, such as the identical forms of the genitive and dative singular for all three genders.

Let us begin with an examination of the forms hie, haec, hoc: the nominative masculine singular hic (also hec in many inscriptions) is derived from the stem *hi to which the particle -ce is added with subsequent loss of the vowel, while the feminine haec is derived from *hä-ī-ce. The neuter hoc(c) < *hod-ce, usually written hoc but pronounced emphatically with a double consonant before a vowel (as metrics confirm), gives rise to the analogical masculine form [hikk], well attested in classical poetry.

The reconstructed genitive form is not altogether without its problems, possibly having arisen from an original *hoiōs > *hoius > huius, a development paralleled by the genitive of the relative pronoun quoīus > cuius. The dative is less problematic, *hoi-ei-ce > huic, a form which, like the genitive, could be considered monosyllabic. In the masculine and feminine accusative we find respectively *hom-ce > honce > hunc and *häm-ce > hance > hanc, and in the ablative *hōd-ce > hōc, *hād-ce > hāc. In the plural forms, the masculine nominative has the forms hei > hī (and heis, heisce, epigraphically attested, on the model perhaps of eis, eis, eis from is and (as is the case with nouns with -ole-stems, presumably a compromise between the Latin nominative in -ei and that of the Italian dialects in -ös), whereas the usual two deictic particles can be seen in the neuter form haec < *ha-ī-ce, originally used also for the feminine. Note in this respect that the feminine
form *hae was certainly a later analogical creation to distinguish the latter from the neuter *haec, and that there also existed the form *häs, widespread in the dialects but also present in Pomponius 151. The genitive *hörum and *härum can be traced back respectively to *hösöm and *häsöm, forms which we have seen, also spread analogically to the nominal declension. Finally, in the dative-ablative *his prevails for all genders, although the form *hibus is found in Plautus, presumably formed analogically on *ibus from *is.

The origin of the final -e of the nominative masculine singular forms of iste/ille (archaic forms olle, ollus whose stems are probably related to ölim, ultra) remains obscure, although it may derive from the bare stem with -e-grade. The neuter desinence -ud < *-od bears similarities with the Gk *τοδ > τό and also with Latin quod and aliud (observe that *iste and *ille are often subject to apocope or aphaeresis in the language of the comoedia).

The inflection of the genitive singular in -ius (-i- was subsequently shortened in accordance with the correptio of vocális ante vocälem) can be traced back to *isteius/*illeius (cf. also eius), forms like istimodí, typically found in the language of the comoedia, must obviously go back to *ist(u)smodi, with the loss of -u- and subsequently -s- before a consonant.

The dative ends in -ei, although forms identical with the -ole- and -ä nominal stems, like istö/illö and the Plautine istae/illae, are found very early. The nominative-accusative neuter singular *id bears similarities with Skt id-am and Gk *τοδ > τό.

The forms *is, ea, id can be traced back to an original *i-/*ej-stem and an *ejs/*ejä-stem, whose distribution throughout the paradigm was determined in accordance with an alternation observable in the pronoun quis/quī, quae, quid/quod. The nominative-accusative neuter singular *id bears similarities with Skt id-am and Gk *τοδ > τό.

The genitive *eiūs implies an earlier *ej-os with final -os (which notably alternated with -es/-s, cf. the nominal inflectional paradigm), and, parallel to huius, is frequently considered to be monosyllabic. The dative singular *ei presupposes a form *ej-ei, attested in the Lēx Repet. 1.12. We should also consider the accusative masculine singular forms im, em which occur in the Twelve Tables for the classical *euum, and the final -d of the ablative singular which is attested in epigraphic records: eōd, eād. In the nominative masculine plural *ejo-i > *ejo-ei > iī > i (cf. diī > diī), widely attested in the Republican Age, whereas ei could have been remade on the analogy of eōrum, eōs. Similarly, we find forms in -s like eis, iēis, eis, as was seen to be the case for the nominal -ole-stems, or alternatively such forms could be traced back to a form *eies. It would seem that the old genitive eum for eōrum was remade on the old genitive plural in -um of the nominal -ole-stems. Finally, for the dative and ablative plural, both *ejois and *ejäis, through *ejeis, gave īīs >
is (cf. diis > dis), while eis, in contrast, was presumably recreated on the analogy of eōs, eās. Nor should we forget the form ibus < *ei-bʰ-os, found in Plautus and more generally in the earlier period, which also had the dative feminine eābus, clearly remade on deābus.

The forms idem, eadem, idem were formed by attaching to is the invariable particle -dem, itself presumably the result of -de + em. This generalization holds for all cases except the nominative-accusative neuter singular, where we are forced to presume a form id-em, in perfect correspondence with Skt idam. Alternatively, idem may have been falsely analysed as i-dem, producing the particle -dem which subsequently generalized to the other stems.

The forms ipse, ipsa, ipsum can be retraced to the stem of is, ea, id followed by the invariable particle -pse, as is confirmed by the old forms eapse, eumpe, eampse, eōpse, eāpse. These were soon assimilated to iste/lille, thus giving rise to the normal declension ipse, ipsa, ipsum. The form ipsus for ipse, frequent in Plautus, perhaps produced the genitive ipsī for ipsius and the `regular' neuter ipsum.

Traces of an old demonstrative stem *so- are to be found in the Latin forms sam, sōs, sās, sapṣa (= ea ipsa), which occurred in the early period and share similarities with Skt sa, sā, Gk ὅ, ὅ, Goth. sa, so. The same stem can also be seen in the adverb sī < *sei-ce, whereas the corresponding neuter stem *to-, cf. Gk τό < *tōδ, appears only in such adverbs as tum, topper < *tod-per.

The declension of the demonstratives is also shared by the adjectives aliōs, alter, uter, neuter, uterque, utervīs, uterlibet, alteruter, ānus, āllus (< *oinolos), nūllus, sōlus, tōtus. Also of interest are the neuter singular in -um, except for aliud, and the genitive and dative singular in -ius and -i (respectively), typical of the entire series. Moreover, alongside alius there existed a nominative aliis, aliid, which might derive from an -i- stem *ali-s also detectable in words such as ali-quis, ali-bi, ali-ter. Finally, the analogy with nominal stems in -ā and -ole- gave rise to early 'regular' genitive and dative forms, e.g. aliī/līiae, aliō/līiae, etc.

Relative and Interrogative-indefinite Pronouns
Here we have to go back to two different stems, one in -ole- and the other in -i-, *kʷo- and kʷi- respectively, which show obvious similarities with the two alternating stems *ejio- and *i- of the demonstratives is, ea, id. Over an extensive period of time, these two stems were subject to mutual influence, such that by the classical period the inflectional paradigms of the relative pronoun hardly differed from those of the interrogative-indefinite pronouns, except in the forms of the nominative singular.

A brief examination of the individual cases reveals the following facts: in the nominative singular of the relative pronoun the development *quo-i (where -i is the deictic particle also found with the demonstratives) > quei > qui, and similarly *qua-i > quae, hence quod (which shows the specific neuter
pronominal desinence -\(d\)), whereas the interrogative-indefinite pronouns have masculine and feminine \textit{quis} (as well as the alternative feminine form \textit{qua}) and neuter \textit{quid}. \textit{Quī} and \textit{quod} could also assume an interrogative-indefinite value, when used as adjectives. The genitive of all three genders is presumably the rest of the development \textit{*quej-os} > \textit{*quoios} > \textit{quoius} > \textit{cuius}, and similarly the dative \textit{*quej-ei} > \textit{quoiei} > \textit{quoi} > \textit{cui}, the latter marked by the tendency to be pronounced monosyllabically on a par with \textit{cuius}. Clearly, the expected accusative \textit{*quom} would have formally coincided with the homonymous conjunction \textit{quom} > \textit{cum}; in fact only the forms \textit{quem} and \textit{quam}, for the masculine and feminine respectively, are found. In the ablative, \textit{quei} > \textit{qui} occasionally persists, despite the generalization of \textit{quō}, \textit{quaī}. In the plural, the nominative masculine and feminine interrogative-indefinite pronoun \textit{ques} < \textit{*quejes} (attested in inscriptions and in Pacuvius) soon gave way to the relative pronoun \textit{quio} > \textit{quei} > \textit{qui} and \textit{quai} > \textit{quae}, whereas in the neuter, apart from \textit{quia} which was reduced to a simple conjunction, we find \textit{qua} for the indefinite pronoun and \textit{quae} < \textit{*qua-i} for the relative and interrogative pronoun (cf. also a nom. f. \textit{quās}, which reveals the usual Italic and/or dialect influence). The genitive forms \textit{quōrum}, \textit{quārum} supplanted \textit{quium}, found in Cato, whereas the dative-ablative \textit{quibus} all but replaced \textit{quīs} < \textit{*quejes} < \textit{*quois}/\textit{quāis}, except for a few traces in poetry. Among the compounds formed from \textit{quis}, we can cite \textit{quisquis}, \textit{aliquis}, \textit{ecquis}, \textit{quidam}, \textit{quisnam}, \textit{quispiam}, \textit{quisquam}, \textit{quisquam}, \textit{( anus-)quisque}, \textit{quīvīs}, \textit{quīlibet}, which assume the neuter singular form -\textit{quod}- when used as adjectives. In contrast, \textit{quicumque} is a compound formed on the stem of \textit{quī}, which equally yielded the interrogative adjectives \textit{cuius}, -\textit{a}, -\textit{um} and \textit{cuiās}, -\textit{ātis}.

### The Personal Pronouns

Directly inherited from Indo-European, the personal pronouns do not distinguish for gender and have different stems for singular and plural. The first-person singular \textit{ego} (cf. Gk \(ɛγ\(\omega\)) shows the usual ending -\(o\), in accordance with \textit{correptio iambica} (though there are a number of Plautine examples with -\(o\)). By contrasts, the second-person singular \textit{tū} (cf. Gk \(σ\(υ\), Hom. \(τ\(υ\(ν\)) usually has a long vowel, which can, however, be shortened when followed by an enclitic (as in \textit{tuquidem}). This suggests that the quantity of the vowel in Indo-European varied somewhat: *\(tū\). In the third-person singular and plural, Latin usually made use of the demonstrative pronouns for the subject forms, but made use of the reflexive pronoun in all other cases, singular and plural. The old genitive singular forms \textit{miś}, \textit{tiś}, found in Plautus, can be traced back to the IE enclitic genitive-dative forms *\textit{meyj}/*\textit{moj}, *\textit{(w)ej}/*\textit{(w)oj}, and hence *\textit{mi}, *\textit{tī}, with the adjunction of the genitive desinence -\(s\) (recall, in this respect, that \textit{mi} continues as the vocative of \textit{meus}, cf. \textit{fili mi}, corresponding to the Gk \textit{ὁ τὲξνον μοι}). In contrast, \textit{mei}, \textit{tuī}, \textit{suī} are simply genitive forms drawn from the series of possessive pronouns/adjectives \textit{meus}, \textit{tuus}, \textit{suus}. As for the dative, the -\(hi\) of \textit{mihi} and the -\(bi\) of
tibi and sibī presuppose the respective forms *-hei < *-ghej and *-bhej (apparently confirmed by the numerous epigraphic attestations of mihei, tibei, sibei). The final vowel, the result of the monophthongization of -ei, was frequently shortened in accordance with correptio iambica, and, in the case of mihī, the intervocalic -h- gave rise to the expected contracted form mī. Following the loss of final -d, the Old Latin accusative forms mēd, tēd, sēd yielded the predominant classical forms mē, tē, sē. Observe that this final -d is unrelated to that found in the ablative, but, rather, is a simple particle used to strengthen the pronominal stem, or, alternatively, may be the result of the reduplication of the second-person singular accusative pronoun, *tē-te > *tē > tēd, analogically generalized at a later date to the corresponding first- and third-person forms. Formally identical to the accusative, the ablative certainly appears to exhibit in the old forms mēd, tēd, sēd (> the classical mē, tē, sē) the same final -d that originally characterized the ablative of nominal -ole-stems. Among the facts which merit mention with respect to the forms of the plural personal pronouns, we can cite here the following: the same form for both nominative and accusative, namely nōs, vōs, which share similarities with the Skt genitive and accusative plural enclitics nas, vas (but with a short vowel), the Hittite accusative and dative plural nas, as well as the Goth. uns (< *ns). Nothing certain can be said with respect to the form enos, attested in the Carmen Frātrum Arvālium. The genitive forms nostrum, vestrum derive from the stem of the possessive, where final -um is open to two possible interpretations: either it represents the neuter form of the possessive, or it is the outcome of the original genitive plural desinence *-ōm, found with nominal -ole-stems (forms made on the analogy of the usual genitive desinence -ōrum, e.g. nostrōrum, vestrōrum, are not infrequent either). On the other hand, nostrī, vestrī, also drawn from the possessives, represent without doubt the genitive singular of the neuter nostrum, vestrum. In this respect, note that the singular forms were specifically used as the objective genitive, while the plural forms assumed the function of the subjective genitive. The dative and ablative forms nōbīs, vōbīs were formed by attaching the inflection -bīs < -beis < *-bej-s to the stems nō-, vō-, extracted from nōs and vōs. According to the testimony of Paul. Fest., these forms replaced the older forms nīs and (perhaps also) *vīs, which show obvious similarities with the singular forms mīs, tīs above.

The possessive adjectives and pronouns follow the same inflectional paradigm as that of the nominal -ā and -ole-stems: meus < *mej-os (presumably derived from the pronominal enclitic *mei, examined above), tuus < touos < *towos (/*twos, presumably from the genitive *tu-os of the second-person singular personal pronoun *tū, cf. Hom. Gk τε(κ)ός, with secondary apophony), noster, vester formed by adjunction of the contrastive suffix *-t(e)ro-, and, finally, suus < souos < *sowos/*sewos, cf. Hom. Gk ἑός < *ε(ξ)ός, used both in the singular and plural with a reflexive meaning (the original meaning must have been that of '(one's) own' or at least 'belonging
to a kind', cf. the IE root *sū- 'to be born'). Furthermore, in Old Latin the genitive plural forms meum, tuom, nostrum, vostrum, were frequently found, as well as the following inflectional forms of the reflexive: sus, sa, sum. Finally, the personal pronouns could also be strengthened by the adjunction of one of the particles -pte, -met, -pse, -te, and, in the accusative-ablative, the reflexive pronoun could be strengthened by the use of the reduplicated form sēsē.

**Numerals**

We begin by noting that the first three cardinal numbers are declinable. The numeral for 'one' unus < oinos, cf. Gk οἷος 'one on a dice', Goth. ains, has the characteristic genitive and dative forms unius and ūnī, respectively, which are used for all three genders. The plural forms are normally used in conjunction with those nouns which are plural in form but singular in meaning (the so-called pluralia tantum), having replaced the root *sem-, still visible in singuli, simplex, semel, semper, simul, similis. Duo continues the old dual, cf. Hom. Gk δύο, hence δῶ, Goth. twai, of which the following inflections are preserved in Old Latin: masculine accusative plural duo (subsequently replaced by duōs, in line with the emergence of the feminine accusative plural duōs, both remake analogically on the plural inflection of nominal -ā and -ole-stems of the I and II declension), a feminine duo, a genitive plural duum and a nominative-accusative neuter dua, where usually one has duae, duōrum/duārum and duo, respectively. Similar considerations apply to ambō, cf. Gk ἀμφα, with final -o in contrast to the predominant -o of duo. Trēs represents the regular outcome of the nominative plural *trejes, from a stem in -i- *tri-, cf. Gk τρεῖς, Skt trayas. The same stem also turns up in such forms as tria, trium, tribus (and the old accusative masculine/feminine plural trīs).

**Quattuor** can be traced back to *kwetwores (m.) / *kwetwör (n.), cf. Gk τέτρα/τέταρα, Dor. Gk τέτορες, Skt catvāras/catvārī which all continue to be declined, in contrast to Latin which made the numeral indeclinable (probably as a result of the confusion engendered between the masculine and neuter forms following regular phonetic processes). **Quīnque** (with -i- by analogy with quīntus < *quinctos) from *penkʷe (cf. Gk πέντε) shows the 'Italic' regressive assimilation *p ... kʷ > kʷ ... kʷ, as seen above. **Sex** (cf. Gk ἕξ) can be traced to a form *seks rather than *sweks (which is reconstructed on the form of the numeral in Greek, Avestan, Gaulish and Welsh); **septem** (cf. Gk επτά) is the regular product of *septm, while octō (cf. Gk ὀκτώ, Skt aṣtāu, Goth. ahtau) would imply a form *oktōw, the old dual form presumably meaning 'a set of four fingers'. **Novem** is from *nēvē (cf. Gk ενέβα, Goth. niun and nōnus, nōnāgintā); the expected *noven was transformed under the influence of septem, decem (*-n > -m), the latter derived from *dekmt(t), cf. Gk δέκα, Skt daśa, Goth. tainum.

The numerals from eleven to twenty show the innovative forms duodevī-gintī and undēvīgintī, which do not conform to the general pattern of 'unit +
ten', operative in such forms as undecim, duodecim, etc. (cf. Gk ἑνδέκα, δώδεκα, Hom. δυώδεκα, etc.) The numerals from twenty to ninety, by contrast, are compounds meaning ‘two sets of ten’, ‘three sets of ten’, etc. with the individual unit followed by the noun stem *(d)ehnt- (a form of *dehnt- with zero grade). The dual *ehnti is observable in viginti (< *vičenti < *wi·knt-ī, cf. Dor. Gk Ἐικάρτα), whereas the remaining numerals of the group preserve the neuter plural *(d)hnta: triginta, quadräginta, etc. Octogintā replaced an older *octuāgintā (cf. Gk ὀγδοα(Π)ήκοντα), which influenced the form of septuāgintā. Centum presumably goes back to the neuter word *(d)kntóm meaning ‘ten sets of ten’, which was soon made invariable, cf. Gk ἑκατόν. The numerals from 200 to 900 are compounds of the cardinal numerals two to nine and centum. Originally indeclinable (cf. argenti sescentum et mille in Lucilius 1053), they were treated in Latin as plural adjectives, and hence as bahuvrihi compounds, as in Sanskrit and eventually in Greek. As with viginti, triginta, etc., the -g- of quadringenti, quingenti, etc. remains obscure, and the forms quadringentī and octingentī were modelled on the analogy of quingenti and septingenti. Mille, which has no congeners in other IE languages, is an indeclinable neuter (though the ablative millē is attested in Lucilius 506) which in early times was regularly constructed with the genitive. In contrast, the plural forms milia/millia are declinable.

As far as the ordinals are concerned, prīmus is strictly speaking a superlative, as demonstrated by the presence of the suffix *-mo-, while secundus is a verbal adjective of the verb sequor (cf. the verbal adjective oriundus from the verb orior). Tertius from *tri-tjos shows the development *tr- > *ṣtr- > ter-, whereas quārtus, quintus, sextus, parallel to Greek, show the suffix *-to-. Septimus, octāvus, nōnus and decimus are simply made by adding -o- to the corresponding cardinal numeral. Observe that *novenos, which would regularly have produced *nūnos (on a par with nūper < *novipeper), yields nōnus under the influence of novem. The suffix -ē(n)simus, seen in triēsimus, quadrāgesimus, centēsimus, ducentēsimus, etc. derives from vicēsimus which merges the two suffixes *-to- and *-mo-, cf. *vicent-to-mo-s > *vīcē(n)ssomos < vīcē(n)simus, with assimilation and simplification of -ss- after a long vowel.

Finally, the distributive and multiplicative numerals deserve some comment. Singulī, simplex, semel show the root *(s)em- ‘one’, which also turns up in semper, simul, similis, and in the Gk ἕς, ἐν, < *(s)emξ, *(s)emξ. The second element in simplex, duplex, etc. derives from the root *plek- ‘to bend’, while bis, binī derive from *dwis, *dwisnoi, respectively. Ter goes back to terr (attested in Plautus) < *ters < *ṭirs < *tris (cf. Gk τρίς), with an adverbial -s. All the multiplicative adverbs, like totiē(n)s, quotiē(n)s, were formed by attaching the suffix *(s)ei(n)s (on the model of quintu-iē(n)s) to the stem of the various numerals. Similarly, the suffix *-no- from the multiplicative adverb binī was used to form the distributive adjectives ternītrīni, quaternī, quintī, dēnī, vičēni, centēni, millēni.
Verb
The Latin verbal system was based on the fundamental opposition between the *infectum* and the *perfectum*, the latter combining (also formally) the functions of the original aorist and perfect. For each of these two aspects a complete tense system, present, past, and future developed based on the use of distinct stems (as intuitively observed by Varro): *nöscö*, *nöscebam*, *nös cam* contrasting with *növl*, *növeram*, *növerö*. However, the unmistakable development of a system in which temporal relations were precisely differentiated largely obscured the old aspectual distinction of Indo-European, with the result that such distinctions had to be restored, and then only in part, through the devices of verbal prefixation, e.g. *faciö ~ cönficiö/perficiö* and similar examples. As for the moods, the indicative, or the mood of fact, contrasts with the subjunctive, the mood of possibility or expectation, whereas the optative, except for a small number of cases, does not survive in Latin, where its functions were taken over by the subjunctive. Of particular note among the indefinite moods are the gerundive and the supine. The ancient-old tradition of dividing Latin verbs into four distinct conjugations proves irrelevant from a historical perspective, as does the division according to thematic and athematic inflection, in light of its overwhelming absence from the Latin verbal system. Consequently, we shall base our analysis on the principal classificatory criteria that are traditionally adopted by the standard handbooks, whereby, as a general principle, such criteria descriptively contrast the stems of the *infectum* and *perfectum*. Among the distinctions of voice, we can formally distinguish between an active voice and an impersonal/mediopassive voice which were differentiated by a series of distinct desinences. Among the impersonal/mediopassives, we can further distinguish on the one hand between such forms as *bbitur*, *éstur*, *itétur*, derived both from transitive and intransitive verbs and where the absence of a specific subject presents the verbal action as complete in itself (similarly in the Italic languages), and forms like *cingö*, *induor* on the other, which function as reflexive-middles when no agent is expressed but as true passives when an agent is expressed. Related are the so-called ‘deponent’ verbs like *hortor*, *proficíchscor*, *sequor*, *vëscor*, which are middle forms showing various grades of ‘active’ meaning. In fact, parallel to the original active transitives, many of the deponents could govern an object complement or combine with active desinences. However, the opposite process also occurred, especially in Late Latin, whereby the deponents were used as true passives, on account of their belonging formally to the passive voice (which presumably outweighed the fact that they had developed a relatively stable active semantic value). This situation inevitably engendered ambiguity, confusion and hypercorrect forms, as reflected by their absence in Romance.

The inflectional system of the Latin verb comprises, in both voices, distinct morphemes for each of the three singular grammatic persons and their corresponding plural forms, whereas the category of dual, which continues to
play a vital role in Greek, does not survive in Latin. With the loss of the original distinction between primary and secondary endings, caused in part by phonetic developments and in part by analogical levelling, the inflectional system of early Latin can be described as follows:

active desinences: -ö/-m, -s, -t (sg.), -mus, -tis, -nt (pl.);
medio-passive and deponent desinences: -r, -rel-¹ris, -tur (sg.), -mur, -mini, -ntur (pl.).

The active desinence -ö (which tended to be shortened in possible contexts of correptio iambica, cf. Plautine scio) represents the generalized ending of the so-called thematic verbs in the first-person singular of the present indicative (cf. Gk λῶ, of the futures in -bö and -sō, and of the future perfect. On the other hand, -m can be traced back to the athematic primary ending *-m/, as in sum (cf. Gk ειμι), and above all to the secondary ending *-m (cf. corresponding final Gk -n in ἔλαυν). The second-person singular desinence -s can be retraced to the primary ending *-s/, as in es < es-s < *es-si (cf. Horn. Gk e-o), legis < *leg-e-si, and to the secondary ending *-s, as in the imperfect eräs (cf. Gk ἐλευς). Similarly, the third-person singular may continue both the primary ending *-ti, as in est < *es-ti (cf. Gk ἐστι), and the secondary ending *-t, as in erat (cf. Gk *ἐλευς τί > ἐλευς). The original opposition -t ~ -d (primary vs. secondary), resulting from the development *ti > -t and *-t > -d (cf. the early verb forms sied < *siët, esed < *essët, feced < *fëcet, etc.), was lost in the second century BC with the generalization of -t, in accordance with the tendency of Latin to eliminate the secondary endings to the advantage of the primary endings. In spite of its ablaut grade, the first-person plural desinence from *-mos shows similarities with the desinence *-mes, found in Dor. Gk φέρομεν. Traces of an old secondary ending *-mo (?) can perhaps be detected in the mediopassive desinence -mur < *-mo-r. The second-person plural implies a form *-tes, in which the final -s (perhaps by analogy with the second-person singular or the first-person plural) has been attached to -te (cf. Gk φέρετε), a desinence which also turns up in the second-person plural of the present imperative. The third-person plural may be a continuation of the primary ending *-nti, cf. Dor. Gk φέροντι (of which the only direct evidence is the doubtful tremonti of the Carmen Saliare) or the secondary ending *-nt, cf. Gk ἐφερόν < ἐφεροντι. In contrast with Osco-Umbrian, which distinguished between the primary and secondary endings, the loss of final -i inevitably led to the levelling of the two originally distinct endings, with generalization of -nt, parallel to what happened in the third-person singular. As for the mediopassive and deponents, the final -r, characteristic of the
impersonal passive, spread from the third-person singular (in Benveniste’s terms the non-person) to the first-person singular and plural and then to the third-person plural. The first-person singular -ör is formed by simply attaching -r to the desinence of the active, with progressive shortening of the original long vowel, whereas the desinences -är, -ër are formed by substituting -r for the secondary ending -m, similarly with gradual shortening of the vowel in the Republican Age. The earlier second-person singular desinence -re from *-se, an old e-grade form of the middle secondary ending *-so (cf. Gk *λυ-ε-οο > λυον), persists only in the imperative, since in all other cases -s was attached on the analogy of the corresponding second-person singular active form: -ris < *-se-s. In addition, the occasional dialect form *-so-s > -rus occurs in epigraphic records: utarus, spatiarus. In the third-person singular -r was attached to the secondary ending *-to, yielding the form -tur. In the first-person plural -r was attached to the desinence of the corresponding active form *-mo-(s), yielding -mur. Decidedly more complex, however, is the case of the second-person plural -mini, whose origin still remains obscure to the present day, despite a number of attempts to throw light on the matter. Among the various explanations put forward is that which retracts the desinence back to a participle form similar to the Gk λεγόμενοι (and hence to an early periphrasis such as λεγόμενοι ἐστε, in which the auxiliary was subsequently lost and the nominative form of the middle participle was morphologically frozen, and ultimately no longer recognized as such), or to an infinitival form in -menai, which, although without any direct congener within the Italic languages, does show obvious similarities with the Greek infinitives in -μεναι, e.g. λεγέμεναι. The third-person plural -ntur, in contrast, proves relatively straightforward in that it arose from the addition of -r to the old middle secondary ending *-nto.

As for the inflectional forms of the active perfect indicative, ideally these deserve to be accorded a study of their own, at least as far as the element -is- (> -er- in intervocalic position) of the second-person singular and plural and the third-person plural is concerned: lég-is-ti, lég-is-tis, lég-ër-unt (in fact the same element is systematically found throughout the paradigm of the perfectum, cf. lég-er-am, lég-er-ô, lég-er-im, lég-is-se, etc.). Specific points of note include the -i of the first-person singular (-ei in early inscriptions), which can be retracted to a diphthong *-ai, an early middle desinence (also found in Old Slavic) presumably formed by attaching the typical primary ending -i to the original desinence *-a (cf. Skt ved-a, Gk (F)οἶδ-α). The second-person singular -istî reveals the element -is- to which the desinence -tî (arch. -tei) was added, whereas a comparison with Indo-European would lead us to expect *-ta (cf. Gk οἶδ-α). Without excluding the possibility that this -î was simply added on the analogy of the first-person singular, it would not be unreasonable to presume, instead, an original form *-ta-i, with the typical -i of the primary endings. As for the third-person singular, by contrast, there were two desinences, -ed and -it (-eit in early inscriptions). The first of these
desinences, also found in Osco-Umbrian, is an old secondary ending replacing the original IE desinence *-e of the perfect, cf. Gk λέλοιτε (however, in accordance with the tendency to eliminate the secondary endings to the advantage of the primary endings, -ed > -et > -it, as witnessed by epigraphic records). The second desinence -it, on the other hand, could have been made analogically on the desinence of the first-person singular -i, or, alternatively, could be the result of attaching the secondary ending -t to the usual primary ending -i, namely *-e-i-t, which would have become confused with the preceding ending -ed after the shortening of syllable-final long vowels before all consonants except -s. In the first-person plural, the desinence -mus is the same as that of the present and the other tenses, but is attached here to the stem of an element -i-, which presumably spread to all verbs on the analogy of a few verbs where -i- (probably < *-a-) appeared in the root, cf. dedi-mus, steti-mus. The second-person plural, in contrast, is characterized by -is- (see above) which was placed before the desinence -tis < *-tes of the present and all other tenses. The third-person plural proves to be more problematic for there are three desinences: -erunt, -ere, -erunt (with -unt < -ont, as witnessed by early inscriptions). -erunt, which is the only form found in Romance and undoubtedly, therefore, the most widely used in the spoken language, clearly shows the element -is- (< *-is-ont), whereas -ere, which was considerably less used and, on the whole, avoided by classical prose, also turns up in Indo-Iranian and Tocharian. Finally, -erunt, which was advocated by Cicero and used in dactylic poetry as a device to avoid words of impossible rhythmical pattern such as cretic, is seemingly nothing more than an artificial compromise between the two preceding desinences. As for the perfect of the mediopassive and deponent verbs, it is worth noting that, in contrast to the system of the infectum, the perfect is not an inflectional paradigm but, rather, is formed analytically from the adjective in *-to- combined with the inflection of the present or perfect indicative (or subjunctive) of esse. Clearly, this type of periphrastic construction contributed to the development of the analogical periphrasis habeo + verbal adjective in *-to-, which continues in Romance, originally expressing the idea of completed aspect rather than the idea of past time. Note that this latter periphrasis is distinct from the synthetic perfectum, which both formally combined and conveyed the values of the original ‘aorist’ and ‘perfect’, before progressively assuming a specific temporal value.

The Infectum

A brief examination of the stems of the infectum according to the criteria familiar from standard handbooks reveals the following cases:

(a) a reduced number of athematic root stems, e.g. is < *ej-si, it < *ej-ti, vult < volt < *wel-ti, vis < *wej-si, es(s) < *es-si, est < *es-ti, ēs < *ēd-si, ēst < *ēd-ti, fers < *bher-si, fert < *bher-ti (as well as some traces in the
inflection of *do*), and the ablaut alternations with full grade appearing in the singular and the weak grade in the plural have essentially been lost:

(b) thematic verbs, radical or otherwise, which in the present indicative place between the verbal stem and its desinence an element generally termed the thematic vowel.

The thematic vowel which appears as *e* or *o* before a nasal (preserved particularly well in Greek, cf. alternations like λέγετε~λέγομεν), has largely been obscured in Latin in so far as *e* and *o* > *i* in open syllables and *o* raises to *u* in closed syllables: *lege-si, leg-e-ti, leg-o-mos, leg-e-tes, leg-o-nnti > legis, legit, legimus, legititis, legunt. A more detailed examination of thematic stems reveals the following cases:

1 verb stems showing reduplication (athematic root stems did not survive) in which the root normally appears in the zero grade: gi-gn-o, sīdō < *si-sd-o, sero < *si-s-o;
2 verb stems with an infixed nasal: iungō, linquo, rumpō, scindō;
3 verb stems with a nasal suffix: cernō, sinō, sternō, pellō < *pel-n-ō, tollō < *tol-n-ō;
4 so-called ‘inchoative’ verbs in -scō: poscō (< *prk-sk-ō, with zero grade of the root *prek-, cf. precor), also with reduplicated forms like discō (< *di-dk-sk-ō, with zero grade of the root *dek-*dok-, cf. decet, doceō);
5 verb stems with the suffix *-je!jo-: spec-iō, ven-iō, a large number which are denominative verbs, e.g. fugō < *fugā-jō, albeō, finiō, gregō, metuō.

This suffix typically had a whole host of functions, attaching to verbal roots, as in spec-iō, ven-iō, or, more frequently, to nominal stems (in -ā, -ole-, -i-, -u-, -ē-, and consonant stems), as in the case of the denominatives cūrō, dōnō, aequō, finiō, laudō, aestuō, glaciō, etc. Alternatively, it was used to form causative verbs such as doceō, moneō, moveō, spondeō, torreō, etc., in which the verbal root normally appears in the o-grade.

The Tenses and Moods of the inflectum

The present indicative, which is not distinguished by any specific temporal or modal suffix, presents the following peculiarities:

(a) In verbs with thematic roots like leg-ō, leg-i-s, the original alternation of the thematic vowel -elo- (*o* in the first-person singular and first- and third-person plural, and *e* in the second- and third-person singular and second-person plural) is no longer visible. Thus we find legō, but *leg-o-mos > legimus* (note however the archaisms quaesumus, volumus, and the special cases of sumus and its compounds, whose original athematic forms were replaced in the first-person singular and first- and third-person plural by thematic forms with the regular *o*), *leg-o-nnti > legunt,
hence \(^{\text{*}}\)leg-e-se(s) \(>\) legerel|legerenis (with the preservation of e before r), but \(^{\text{*}}\)leg-e-si \(>\) legis, \(^{\text{*}}\)leg-e-ti \(>\) legit, \(^{\text{*}}\)leg-e-tes \(>\) legitis.

(b) In verbs with vocalic root stems in -\(\acute{a}\)- and -\(\acute{e}\)-, e.g. am\(\grave{o}\), mone\(\acute{o}\), neither the thematic vowel nor the suffix \(^{\text{*}}\)jeljo- are longer visible on account of the loss of -j- in intervocalic position with concomitant vocalic contractions, and on the analogy of the athematic verbs.

(c) In verbs with vocalic root stems in -i-l-i-, e.g. capi\(\tilde{o}\), capis/audi\(\tilde{o}\), audi\(\tilde{d}\), the thematic vowel has also been obscured, except in the third-person plural where, in contrast to amant, moment, we find respectively capiunt \(<\) *cap-o-nti, audiunt \(<\) *audi-o-nti, and not the expected athematic forms *capint, *audint.

(d) The archaic suffix -\(n\)- found in the third-person plural of some verbs, e.g. da-n-unt, fert\(\tilde{e}\)-n-unt, redi\(\tilde{e}\)-n-unt, nequ\(\tilde{i}\)-n-unt for dant, feriunt, redieunt, nequeunt, still remains obscure.

Besides the secondary ending -m of the first-person singular, the imperfect indicative reveals the suffix -b\(\grave{a}\)-, in which the element \(\grave{a}\) originally had a modal value and could be used with a past time function, as witnessed by early forms of the subjunctive and the infectum and perfectum preterites, e.g. er\(\grave{a}\)s < *es-\(\grave{a}\)-s, dixer\(\grave{a}\)s < *dix-is-\(\grave{a}\)-s. On the other hand, the b of -ba- is from the stem *bhu- 'to be', which gives forms like fu\(\grave{i}\), etc. Thus, the attachment of the suffix a to the root *b\(\grave{u}\)- would have produced the imperfect form of the verb 'to be' *b\(\grave{u}\)w\(\grave{a}\)-m, which, in turn, was attached periphrastically to the verbal stem. Consequently, the original meaning of a form like am\(\grave{a}\)-b\(\grave{a}\)-m can be interpreted as 'I was in the act of loving'. The origin of the first element in this periphrastic combination is a matter of speculation. Presumably, though, am\(\grave{a}\)-, mon\(\acute{e}\)-, leg\(\acute{e}\)- were verbal nouns similar to infinitives (a similar verbal noun appears in the first element of the compounds är\(\grave{e}\)-faci\(\tilde{o}\), püt\(\grave{e}\)-faci\(\tilde{o}\)), although this is not the only possibility, and the explanation of capi\(\tilde{e}\)- and audi\(\tilde{e}\)- (in capi\(\tilde{e}\)bam, audi\(\tilde{e}\)bam) remains obscure. The Latin future indicative exhibits three distinct forms: those in -aml-\(\acute{e}\)-s, in -b\(\acute{o}\) and in -s\(\acute{o}\). In actual fact, the forms in -aml-\(\acute{e}\)-s continue the old -\(\acute{a}\)- and -\(\acute{e}\)-subjunctive forms (the former is found in Osco-Umbrian, Old Irish and Tokharian A, and the latter bears similarities with the Greek subjunctive forms with a long thematic vowel). In the -ere and -äre conjugations, the -\(\acute{a}\)- formant retains its subjective value, whereas the -\(\acute{e}\)- formant comes to mark the future, with the exception of the first-person singular which uses the subjunctive desinence -am < *-\(\acute{a}\)-m (unsurprisingly since the function of the subjunctive is closely related to that of the future), though in Plautus’ and Cicero’s manuscripts, forms like accipiem, experier, faciem, sinem, do occur alongside such ‘canonical’ forms as legam, capiam, audi\(\acute{a}\)m. In the -äre and -ëre conjugations, the subjunctive was formed respectively from the -\(\acute{e}\)- and -\(\acute{a}\)- formants, e.g. amem, amës/moneam, mone\(\acute{a}\)s, such that the -\(\acute{a}\)- formant could not possibly be used to form the future of verbs of the -äre conjugation, nor the
-ĕ- formant in verbs of the -ĕre conjugation, since these would have coincided with the respective present indicative forms of these verbs. On a par with the imperfect in -bam, the gap was filled by the creation of a new periphrastic future formed on -bö. Specifically, the verbal stems amă-, monĕ- were combined with a (probable) short-vowel subjunctive form of the verb *bʰu-‘to be’, namely *bʰwō, *bʰwes, yielding amă-bŏ, monĕ-bŏ (and with a number of analogical extensions to verbs of the III and, in particular, the IV conjugations). Future forms in -sō, e.g. capsō, dixō, faxō, can generally be retraced to a stem which is unrelated to that of either the infectum or the perfectum. It is traditionally thought that this future is an old desiderative verb form (cf. Gk -omega). This conclusion finds support within Latin itself where this same suffix can be related to the sequence -ssō, as in the desiderative verbs capessō, lassocō (note that forms such as amăssō, indicăssō, servассō are later analogical creations). On the other hand, we cannot exclude the possibility that these modal forms in -sō uniquely continue the stem of an old aorist subjunctive. It is worth pointing out, in this respect, that the future of sum, erō < *es-ō, eris < *es-e-sī, erit < *es-e-sī, etc., is an old subjunctive form with a short thematic vowel, as was normally the case with athematic verbs.

The present subjunctive, to which we alluded above, can be traced partly to the IE optatives and partly to the old subjunctives in -ā- (modal forms) and in -ē- (note that from the old IE subjunctive in -ēlō-, normally with a lengthened vowel in the case of thematic verbs, Latin generalized -ē- to all persons with the usual shortening of the vowel before -m, -t, -nt). As in the case of the future in -sō above, the subjunctive forms in -ā-, namely duās, creduās, fuās, abstulās, attigās, advenāt, etc., seemingly contain a stem which is not related to either the infectum stem or that of the perfectum. Rather, such forms betray a subjunctive-optative suffix -(s)im, which can still be seen in the paradigms of a small number of athematic verbs, e.g. sim/siem, velim, edim, in a number of thematic verbs, e.g. duim, crēduim, perduim, ausim, dīxim, faxim, and presumably in the negative imperative *nē faxīs (> nē fēceris), a reconstructed form supported by such forbidding expressions as the Plautine cave respexīs. The imperfect subjunctive, by contrast, continues the suffix -sē-, with -s-> -r- in intervocalic position, e.g. amăres < *amă-sē-s, monēres < *monē-sē-s, forĕs < *bhr-sē-s, but essēs < *es-sē-s, ferrēs < *bhr-sē-s,vellēs < *wel-sē-s etc.

Finally, we shall look at the imperative for which Latin distinguished between present and future forms. In the present imperative, the second-person singular is formed simply from the athematic or thematic verbal stem with shortening of -v in accordance with correctio iambica in some cases, e.g. es, ēs, fer amā, monē, lege, cape < *capī, audi. In some cases, the imperative has lost the final vowel, e.g. dic, duc, em, fac. In the second-person plural the inflection is -te (cf. Gk λέτε). In the passive, the singular and plural desinences -re and -minē, respectively, are identical to those used in the indicative. The future imperative proves slightly more problematic: in the
second- and third-person singular active, the inflection -tö < *töd, in origin the ablative of the demonstrative pronoun *to- (cf. topper < *tod-per) with the meaning 'from this/that moment on', was added to the second-person singular form of the present imperative, hence amätö, monëtö, legitö < *lege-töd, capitö, auditö. On the other hand, the corresponding plural forms were created analogically: amätöte, legitöte are derived from amätö, legitö on the analogy of the transparent relationship between amätë, legite and amä, lege, whereas amantö, leguntö were remade on the present indicative forms amant, legunt. The passive future imperative inflections -tor (2 and 3 sg.) and -ntor (3 pl.), exhibiting the 'characteristic' attachment of -r to the active desinences typical of the mediopassive and deponent paradigms, are a relatively recent creation, inasmuch as the passive future imperative was originally expressed by the corresponding active forms. An alternative second- and third-person singular form in -mînö, e.g. profitemînö, progrademinö, attested in the Republican Age, is clearly an analogical creation, e.g. legite: legitö = legiminî : legiminö.

As for the non-personal forms of the infectum, we can note the following. First, the present infinitive, both active and mediopassive/deponent forms, is originally a verbal noun which lacked any specific temporal reference. In fact, an active form such as agere, plausibly from *agesi, may be interpreted as the locative singular of a nominal -s-stem *agos/*agesos ‘the leading’, whereby *-si (or perhaps in its subsequent form *-se) was presumably reinterpreted as a characteristic infinitival marker, systematically attached to all verbal stems (the -s- was rhotacized or assimilated according to the phonetic environment, e.g. es-se, *fer-se > ferre, *vel-se > velle, *amâ-se > amâre, etc.). The endings of mediopassive and deponent infinitives, namely -i-rî, are generally traced to -ej/*sej, hence leg-i, cap-i, amârî < *amâ-sej, etc. Comparing agî with Skt aje < *aģ-ej would suggest that -î is a dative form (cf. OLat. -ei) of the root noun of the so-called III declension (in spite of evidence to the contrary from the Duenos inscription, where the form pakari does not exhibit a final diphthong). In this light, -rî can be regarded as the merger of -î and the active inflection -re < *-si. Nothing certain can be said about the early Latin forms of the passive infinitive in -ier/ier, exception that the final element -er shares similarities with the inflection of the Osco-Umbrian impersonal-passive. The present participle active is formed from the suffix -nt-, with the generalization of e in thematic verbs (though we cannot rule out -ent- < *-nt-), e.g. amâns < *amâ-nt-s, amantis < *amâ-nt-es, monëns < *monë-nt-s, legëns < *lege-nt-s, capiëns < *capi-e-nt-s, audïëns < *audë-e-nt-s, etc., in contrast to Greek, which systematically shows o, e.g. λûov, λûovtoç, though isolated traces can be found in Latîn, cf. sônûs, sôntis ‘guilty’, or more accurately ‘he who is the one’, from a root *es/îs- ‘to be’, eunûs < *ej-onûs from a root *ej/î- ‘to go’. As is well known, Latin had no mediopassive present participle, even if a handful of nouns like alumnus, fêmîna, Vertumnus can be compared with the Greek and Avestic participles in -μνος and -mna-,
respectively. On the other hand, Latin did have a gerundive, or future participle passive, which was formed by attaching the suffix *-ndo- to the stem of the present, generally with the thematic vowel e in thematic verbs, on the analogy of the present participle active, e.g. ama-ndus, mone-ndus, leg-e-ndus, capi-e-ndus, audi-e-ndus. However, gerundives with thematic o (< o-ndo-) do occasionally occur, especially in Old Latin, e.g. legundus, scribundus, oriundus, secundus (note that the last two are also found in all ages as ‘standard’ forms). Although no satisfactory explanation has been offered for the original value of the suffix *-ndo- (also found, incidentally, in Osco-Umbrian where it appears to be a Latin loan), we cannot entirely rule out the possibility that it is related to the element -do- that appears in verbal adjectives like timidus, and more frequently in those in -bundus like moribundus, pudibundus, vagabundus (in turn comparable to those adjectives in -cundus like fucundus, fecundus, tracundus, iucundus, verecundus). The meaning of the gerundives was that of ‘involved in the action of ...-ing’, which clearly accounts for how this participle readily came to develop also an active use. Finally, it will be noted that the forms of the gerundive in -ndum, -ndi, -ndo are used as declined forms of the infinitive, traditionally termed ‘gerunds’. It is still not known, however, whether this use of the gerund emerged from the gerundive, or whether the entire functional paradigm of the gerundive developed from original forms of the gerund.

The Perfectum

Unrelated to the organization and structure of the infectum, the Latin perfect was formed in several different ways: (a) by reduplication; (b) by modification of the root vowel; (c) by suffixation of -si, corresponding to the sigmatic aorist in other languages; and (d) by the addition of -vi to the stem, the so-called ‘weak’ perfect.

As for the various forms of the perfect exhibited by the various conjugations, we can note the following: -äre conjugation exhibits ‘weak’ perfects in -āvīt-ūī (with an infectum ~ perfectum opposition, in the second case, in accordance with the vocalic alternations ā ~ a or ā ~ 0), e.g. amāvī, cubūī < *cuba-ūī, secūī < *sec-ūī, and reduplicated perfects, like stētī < *stē-st-ai (with dissimilation of -s-); the -ēre conjugation has ‘weak’ perfects in -ēvīt-ūī (for the latter form see above), like plēvī, monuī < *mone-ūī, docuī < *doc-ūī, and ‘strong’ perfects, e.g. mo-mordī (reduplicated), sēdī (root-vowel modification, cf. pres. sedēō) and auxī < *aug-si (sigmatic); the -ere conjugation shows all the perfect types just examined, e.g. tutūdī, ēgī, sparsī, stravi, alūī; the -ere conjugation equally exhibits all attested perfect types, e.g. audīvī, aperūī, reperī, vēnī, vinxī.

The stems of the perfectum and the infectum are originally unrelated, as examples like gen-ūī, vic-t against gi-gn-dō, vi-n-cō clearly confirm. However, by a process of analogical regularization, the perfect of derived verbs and, more generally, of neo-formations is clearly made, as a rule, on the present
stem, e.g. cūrā-vi, finī-vi on a par with cūrā-mus, finī-mus, etc. More specifically, we should point out the following with regard to the formations of the perfect: (1) those verbs (radical or otherwise) with consonant stems normally have perfects formed by reduplication, root vowel modifications or sigmatic perfects (–si); and (2) those verbs (radical or otherwise) with vocalic stems, by contrast, generally have ‘weak’ perfects in –vīl–ū. The reduplicated type of perfect, attested in Greek and Sanskrit, usually has the reduplicated vowel e in Latin (in contrast to the present where the vowel appears as i, cf. bi-bō, gi-gnō), e.g. ce-cidi, fe-felli, pe-pigī. As is also occasionally the case in Sanskrit and Old Irish, the vowel of the reduplication may be assimilated to the root vowel, variously yielding i, o, u, e.g. di-dicī, mo-mordī, tu-tudī. The o-grade ~ zero-grade alternation, characteristic of the IE reduplicated perfect distinguishing the singular from the plural persons (as is clearly visible in the Greek alternations μεμονα ~ μέμμεν < *memmmen), left no trace in Latin (except perhaps in stetimus < *ste-sto-mos, cf. Gk ἑ-στα-μεν), since the vowel of the present was generalized to both the singular and plural persons of the perfect, e.g. poposcl, cucurri, tetendī. In other cases, the vowel in syllable-medial position was raised on account of the strong initial accent, e.g. cecidī, cecinī, cecīdī, fefellī, pepercī, pepuli (< *pe-pel-ai, with u following regressive assimilation caused by [H]), etc. Note, however, the preservation of the zero grade in de-d-i. In the perfect type based on root-vowel alternations, there were two principle patterns: the first involves solely a modification of the quantity of the root vowel, a type of IE perfect which is well attested in the Germanic languages (cf. Goth. 1 pl. pret. sētum, qēnum as opposed to the pres. infin. sitan, qiman), e.g. ēdi, ēmī, lēgī, sēdī, vēntī, fōditī (as opposed to edō, emō, lēgō, sēdō, vēntō, fōdīō), vidī, līquī, fūgī (the product of original diphthongs *-oj- > *-ej- and *-ew- > *-ow-, as opposed to -i- and -u- in the present-tense forms videō, linquō, fugō). The second type involves a modification of both the quantity and the quality of the root vowel (cf. Greek aorists like ἐθηκα, ἵκα, e.g. ἐγί, cēpī, fēcī, fregī, iēcī (as opposed to agō, capiō, faciō, frangō, iaciō). The perfect in -si is traceable to an old aorist in -s- (cf. Gk ἐδειγξα of which Latin made considerably more use than the other types of perfect formation. In fact, the latter can arguably be regarded as historical residues, rather than functionally productive linguistic devices. Equally in terms of relative chronology, the sigmatic perfect appears to be more recent than the other perfect types, and progressively spread to those compound verbs whose verbal element otherwise exhibited a different type of perfect formation, cf. cōmsī, intellēxī as opposed to ēmī, lēgī. Normally, the sigmatic perfects do not exhibit vocalic modifications, except in the cases of réxī, téxī as opposed to regō, tegō, which were presumably made on the analogy of their respective participles réctus, téctus, or, alternatively, underwent the same phonetic process as the latter, namely Lachmann’s Law whereby the plosive was devoiced and the vowel underwent compensatory lengthening. Others, however, have rejected this explanation,
maintaining that the lengthening of the vowel in the participle arose, rather, on the analogy of the perfect form. Finally, as for the ‘weak’ perfect in -vīl-uī, this type is particularly common in denominative verbs and increasingly spread analogically to other verbal stems too, as if driven by a process of paradigmatic regularization. The ‘weak’ perfect is clearly an early formation (as sēvī, with an ablaut grade distinct from that of the present serō < *si-s-ō, would seem to indicate), although there lack any satisfactory explanations for its origin. For instance, it has been proposed that -vīl-uī may have been extracted from fūī (< fūī < *bʰow-ēj < *bʰew-ai), falsely analysed by speakers as *fu-uī (probably pronounced ['fuwiː]). Nor can we exclude the possibility of tracing its origin to the Sanskrit reduplicated perfects like ja-jñau, pa-prau, even though, contrary to Sanskrit, their Latin equivalents (g)nōvī, plēvī show a long vowel. Moreover, the -u- in Sanskrit appears only in reduplicated perfects, whereas in Latin these two perfect types are mutually exclusive. Examples such as amāvi, audīvī, crēvī, levī, pāvī, sprēvī have a long root-stem vowel, as opposed to forms like cubul, domui, genuī, monuī, sonuī, vetuī which have a short root-stem vowel, such that amā-vī, audi-vī must be from amā-, audī-, whereas mon-uī (probably pronounced ['monuwiː]) is from *monu-wī < *moni-wī < *mone-wī.}

Between similar vowels -v- disappeared with subsequent contraction of the vowels in perfects of this type, e.g. audīvīsī > audīsī. These forms were then extended analogically to forms where the loss of -v- was not phonetically motivated, e.g. amāstī < amāvīsī, delēstī < delēvīsī, etc., as well as to other tenses and moods of the perfectum.

Finally, to conclude, we should very briefly mention the problem of the so-called preterite-present forms. Such forms, which are considerably more common in the Germanic languages (cf. Chapter 13, Verb Conjugation, pp. 403–7), are only observable in the three Latin verb forms memīnī, nōvī, ōdī, which cannot be readily assimilated into a single formally or semantically coherent category.

Among the various tenses and moods of the perfectum, we begin with the pluperfect, corresponding to the imperfect tense of theInjectum, which has both indicative and subjunctive paradigms. In the indicative, the ending in -ēram is clearly traceable to *-is-ā-m, which is formed from the characteristic perfectum suffix *-is-and the usual element -ā-, originally a modal marker but equally a marker of past tense, followed by the secondary ending -m. The pluperfect subjunctive, by contrast, has -is-sem < *is-sē-m, which again is formed from the perfectum suffix *-is-, to which is added the suffix -sē-, characteristic of the imperfect subjunctive (cf. amārem < *amā-sē-m), followed by the secondary desinence -m. As for the future perfect, its inflection became confused with that of the perfect subjunctive (except in the first-person singular) in the classical period, though in Old Latin it is still possible to detect traces of two quite distinct inflectional paradigms. Note that, as a rule, the opposition between these two tenses is identical to that
between erō and sim/ziem, the respective old forms of the subjunctive and optative which came to express, respectively, the future indicative and present subjunctive of the infectum. Besides the usual element *-is- (> -er- in intervocalic position), the future perfect was characterized by the inflection -i- (cf. eris < *esis < *es-e-si, hence lēgeris, lēgerimus, lēgeritis), whereas the perfect subjunctive was distinguished by the inflection -i- (which continues an old optative, cf. sīs, velis, and hence lēgeris, lēgerimus, lēgeritis), subsequently shortened for phonetic reasons in final closed syllables before -m, -t, -nt, and eventually throughout the entire paradigm by analogy. Consequently, the distinction between the two paradigms was obscured, except in the first-person singular where the original opposition survived: lēgerō ~ lēgerim. Finally, the system of the perfectum did not possess an imperative form, though there are traces of a perfect imperative in the isolated examples mementō, mementōte, derived from the preterite-present form meminī seen above, the meaning of which also gave rise in Late Latin to the ‘present’ participle form meminēns.

Points of interest regarding the non-personal forms of the perfectum include the following. The perfect infinitive was formed by adding to the perfect stem the characteristic suffix -isse, containing the usual element -is-followed by the infinitival ending -se, e.g. amāvisse, monuisse, lēgisse, audīvisse. In the latter case, -vi- could fall, yielding the contracted form audīsse, a pattern which spread analogically giving such forms as amāsse, delēsse, nōsse, etc. Although not possessing a morphologized perfect participle active, Latin did nevertheless have a verbal adjective in *-to-, principally used (except in the case of the deponents and similar cases, e.g. ausus, fīsus, gāvisus, solitus) with a passive value. However, we should not forget examples like cautus, cēnātus, pōtus, prānsus, scītus with active meaning and, conversely, deponent examples like medītātus, rātus with passive meaning. In origin, the suffix *-to- was added to the weak grade of the verbal root, of which only a few traces are still visible in Latin, e.g. datus, satus, status (where -a- < *-a-, alternating respectively with ö, ē, ā, e.g. dō, sēvī, stāre), and similarly dictus, situs, ductus, ustus (where -i/- alternates with -i < *-elī- < *ov- < *ew-, e.g. dicō, sīvī, dūcō, ūrō). Subsequently, it generalized combining with all types of verbal root, even those with particular infixes or suffixes, although at first these were lost, e.g. aptus, nactus, ruptus as opposed to apīscor, nancīscor, rumpō. It seems appropriate at this point to recall the various phonetic developments affecting the vowels and consonants of the verbal roots and stems to which the suffix *-to- was attached (cf Chapter 2, Dental plus Dental, p. 40), such as vowel lengthening in accordance with Lachmann’s Law (as when the root ended in a voiced velar plosive, e.g. āctus, frāctus, lēctus, pāctus, rēctus, tāctus, tēctus, with the exception of strictus, and occasionally when it ended in a voiced dental plosive, e.g. cāsīrīs, ēsus, vīsus, with the exception of fissus, fossus, scissus), the forms in -sus created by assimilation -tld- + -t- > -ss- and subsequently
extended by analogy to the perfects in -sī, where their presence was not phonetically motivated, e.g. mānsus, mulsus, sparsus, tersus, etc. We should also note the lengthening and nasalization of the vowel in mēnsus, pēnsus, sēnsus. As is well known, the perfect participle passive in *-to- is also used to form the periphrastic perfect of the mediopassive voice and the deponent verbs in conjunction with sum. More rarely, it was combined with habeō, as early as Plautus, to form the periphrasis which was later to be developed in all the analytic forms of active paradigms in the Romance languages.

Other active forms are derived from the verbal adjective in *-to~, namely the future participle and the so-called future infinitive. The first of these was an adjective in -tūrus/-sūrus (very occasionally made on the present stem, e.g. moritūrus, nāscitūrus, oritūrus, paritūrus, the latter perhaps modelled on peritūrus), whereas the second was formed from the future participle combined with esse or fuisse for the infectum and perfectum, respectively). In Old Latin, however, it could also appear in the invariable form -tūrum/-sūrum. It may be the case that the forms in -tūrus are related to the nouns in -tūra, and in spite of their differing vowels, to the desiderative nouns in -turio.

Finally, we must examine the supine which was a verbal noun in *-tu-, in which the latter suffix, contrary to *-to~, was originally attached to the full grade of the root, as confirmed by a few Latin examples, e.g. genitum against (g)nātus, and perhaps créatum against certus < *kritos. Eventually, as in the case of the perfect participle, the *-tu- suffix was attached to the root, whatever its ablaut gradation; in practice the vocalism of the perfect participle and the supine systematically coincided. Of the various case forms in use, the supine was used in the accusative in -um after verbs of movement like ire, venire (frequently with a simple periphrastic value, as in perditum ire corresponding exactly to perdere), in the dative-ablative in -ū (but Plautus still distinguishes a dative in -ui) with adjectives in such expressions as mirabile visī, facile dictū, etc. In addition, a periphrastic construction formed from the supine in the accusative combined with īrī/īriēr, the impersonal form of the infinitive of eō, was used to express the future infinitive passive, e.g. amātum īrī, monitum īrī, etc. When compared with other Indo-European languages, it is immediately obvious that the Latin supine is related to the datives in -tavē, genitives in -tōs and the accusatives in -tum of the deverbal abstract nouns in -tu-, which are frequently attested in Vedic (recall that the accusative in -tum < -tu- stems becomes the only infinitive in Classical Sanskrit), and share similarities with the corresponding forms in Old Prussian and Old Slavic.

The Invariable Parts of Speech

These include a whole host of elements which are mostly characterized by the fact that their interpretation within Latin, and Indo-European more generally, remains uncertain or at the very least problematic. Consequently, we shall merely undertake a brief examination of such parts of speech.
Adverbs
Among the various types of adverb, many of which subsequently developed into prepositions or conjunctions, we begin with the adverbs of negation, such as ne- (cf. Skt na) used in compounds like nefäs, nēmō < *nehemō, nequeō, nesciō, nihil(um) < *ne-hīlom ‘not a thread’, nōlō < *ne-volō (cf. the Plautine nevis, nevolō), nōn < *ne-oinom, neque, hence nē, nī < *nē + i. As for deictic adverbs with spatial-temporal reference, we can cite ante (cf. Gk ἀντί), circā, circiter, circum, idcirco (obviously related to circus), post, pōne < *post-ne, prope, propter, praeter, subter (the latter with the comparative suffix -ter), suprā, infrā, utrā, citrā, simul, usque, versus, versusum, adversus, etc. It will be noted that a number of adverbs continue fossilized case forms of nouns: parum, primum, multum, nimum, minus, plūs, tum, num, cum < quom, tunc < *tum-ce, nunc < *num-ce, ōlim, partim, statim, iam, nam, tam, quan, clam, palam can all be traced to accusative neutral, masculine or feminine forms, while prīmō, retrō, extrā, infrā, certō clearly betray an original ablative case form, noctū, diū, temperī old locatives, nox, dius old genitives, and the class of adverbs in -ē probably continues an instrumental desinence. Other adverbs can be retraced to fossilized expressions, e.g. interēa, hācketus, scilicet (< scīre licet), dumtaxat (with -taxat < *tak-s-ā-t, the aorist subjunctive of tango), whereas the widespread type in -ter appears to have originated in the adverb aliter, with subsequent analogical creations like pariter, similiter, etc. (cf. also formations in -per, like parumper, semper, topper).

Prepositions
From the class of prepositions, we list here, in addition to those adverbs above which developed uses as prepositions (according to a process widely found in the world’s languages), the following: ad, apud, cis, ipsis, ob, per, inter (all with congeners in other IE languages), ergā, penes, trāns (all governing the accusative), ab, cum, de, ex, prae, pro, sine (all governing the ablative, and with congeners in other IE languages), and in, sub (cf. Gk ἐν, ὑπό) which may govern both the accusative and the ablative.

Conjunctions
We list here the following conjunctions: et, the enclitic -que (cf. Gk τε), atque > ac, etiam, quoque < *quō + que, neque > nec, aut, vel (< *vell < *vels < *wel-st, 2 sg. of the pres. indic. of volō, or simply the 2 sg. of the imp.), -ve, sive > seu, sed, at, autem, tamen, (e)quidem, quīn (< *qui ne ‘how not?’), immō, nam, enim, quippe < *quidpe, itaque, igitur (presumably from agitur, an enclitic form exhibiting the usual raising of a > i in phrases like quid agitur?), ergō < *ē-regōd, cūr < *quōr, ut, utī < utei (with -ei as in ubi < *ubei, etc.), nē, cum < quom, quoniam < quom iam, quod, quia, quamquam, quamvis (with vis ‘you want’ 2 sg.), quandō, dō nec, dōnicum, quod < *quō + ad, sī, sicut, ceu < *ce-ve; and a number of interrogative particles like an, -ne, anne, nōnne, num, utrum (nom.-acc. n. of ute).
Interjections

Finally, we shall look at interjections, most of which are onomatopoeic, like *heu, éheu*, etc.; the form *vae*, however, could be related to the Goth. *wai*. There is also a large number of interjections of Greek origin, such as *éialhéia* (cf. Gk éia, éía), *euoeleuhoe* (cf. Gk évoí), and others which are fossilized forms of old imperatives, e.g. *em* (< *eme*, cf. It. *to* ‘here you are’ from *togli!*), *age, én* ‘here’s’ (which, combined with *illum*, *illam*, gave the forms *ellum*, *ellam*, frequent in the language of the Roman playwrights), *ecceleccum* (which, combined with *istelille*, form the Italian demonstrative pronouns *questo*, *quello*), nē ‘truly’ (cf. Gk vni). Finally, there exists a number of interjections drawn from the names of gods, e.g. *hercle, hercle, meherculès, mehercle* (namely, from *Hercules* and *mé Hercules* [*iuvet*]), *écastor*, *mécastor* (as before but from *Castor*), *edepol* (presumably from *Pollux*), etc.

Word Formation

In light of the complex nature of the processes of suffixation involved in the creation of nouns and adjectives, it would be impossible to do justice here to the subject of Latin word formation, as a summary examination of the very large number of morphological formants involved in such processes will confirm, just less than about 100 if we include the numerous amalgams containing two or more suffixes. In contrast to Greek and the Germanic languages, Latin word formation generally exhibits very little evidence of vowel gradation in root syllables (note that cases like *pend-o* ~ *pond-us*, *teg-ó* ~ *tog-a*, *ed-ó* ~ *d-ëns*, *gi-gn-ó* ~ *gen-us* cannot be adduced as evidence for paradigmatic alternations). We shall begin with the important class of *nómina agentis* suffixes in -*tór*- (f. -*tríc-*), e.g. *genitor* (*genetrîx*), the *nómina áctiönis* in -*ti-ôn*- (-s)*ti-ôn*-), e.g. *áctio* (*víšio*, *mánśio*, *sessio*), and the deverbal suffixes in -*ti-, -*tu-, -tûra*, e.g. *mors* (< *morti-s*, *canus*, *pictûra*). We may also list the instrumental suffixes in -*tro-*, -*c(u)lo-* (< -*tlo-*), -*cro-, -*bulo-* (< -*dhlo-*), -*bro-* (< -*dhro-*), e.g. *arlêrûm*, *pôc(u)lum*, *sepulcrûm*, *stabûlum*, *lavâbrum*, nouns in -*men*, -*mentum*, e.g. *carmen* (< *can-men*, with dissimilation), *documentum*, nouns in -*ãrium*, e.g. *grânãriurn*, abstract nouns in -*ia*, -*ina*, -*i-t(-i-), -*i-t-, -*i-thin-, e.g. *militia* (denominal)/*audâcia* (de-adjectival), *medicina*, *vëritâs* (< *vëritât-s*, as opposed to *cTvitâs* probably < *cëvîtât-s*), *vîrûs* (< *virtût-s*, *fortitúdo*, adjectives in -*ális*, -*ãrius*, -*ãnius*, -*bilis/-ilis*, -*ënsis*, -*ôsus*, e.g. *annális*, *argentãrius*, *urbánus*, *amábîlis/*facilis*, *forënsis*, *herbósus*, etc. Also of interest are the so-called radical nouns with zero suffixation, such as *dux* (< *dük-s*, *lëx* (< *lég-s*, *lûx* (< *louk-s*, *nêx* (< *nek-s*, *påx* (< *påk-s*, *rëx* (< *rëg-s*, *võx* (< *wôkʷ-s*, etc. A large number of such nouns are not found as autonomous elements but, rather, occur exclusively as the second member of those compounds, termed radical compounds, e.g. *rêmex* (< *rêm(o)-ag-s*) possibly related to Old Indic where the IE root *ag-* equally...
occurs as the second element of a compound, oscen (< *obs-can), tibícen (< *-can), auceps, particeps, princeps (< *-kap-s), præcox (< *-kokw-s, from the root *ekw- < *pek-, and cf. Old Indic śvapac- ‘that cooks dogs’), index, iūdex (< *-dik-s, weak grade of *dejk-, with -dex for the expected *-dix on the analogy of those compounds in -fex), artifex, aurifex, carnifex, opifex, pontifex (< *-fak-s), coniu(n)x (< *-iug-s, with secondary nasal on the analogy of iungō which preserves the nasal throughout the paradigm, and a number of parallels in Greek, Old Indic and Gothic), obses, præses (< *-sed-s, cf. the Old Indic and Avestan compounds in -sad- and -šad-, respectively), auspex, extispex, (h)aruspex (< *-spek-s; these latter three examples may have influenced those compounds in -dex where we should expect *-dix), etc. When compared with Old Indic, Greek and the Germanic languages, the degree of productiveness exhibited by the Latin devices used to form noun compounds generally appears to be considerably reduced (as well as the fact that many compounds have become opaque, e.g. hospes < *hosti-potis). Moreover, we should not be fooled by the large number of essentially endocentric compounds found in the poetic genres, e.g. frondifer, frūgifer, armiger, corniger, nāviger, alitōnāns, suāviloquēns, etc., inasmuch as they are to be ascribed, not to factors inherited from Indo-European but, rather, to particular stylistic stimuli which were progressively established as the auetōres increasingly adopted the norms of imitātio and aemulātio from the Greek.

Syntactic Overview

In the following overview of Latin syntax we shall confine ourselves to briefly bringing together a number of Latin phenomena which we deem (although a degree of arbitrariness is inevitably involved) to be among the most important.

Syntax of the Cases

In contrast to the stability exhibited by the six canonical cases of the Latin declination, the locative is characterized by a low degree of productiveness. In fact, since the time of our earliest written records, the locative case clearly appears to be already on the way to extinction. However, even the accusative and the ablative cases frequently appear in combination with prepositions, foreshadowing the generalized development of such analytic constructions in the Romance languages. Nor can we forget the vocative case which, since early times, tended to be replaced by the nominative even in the masculine and feminine singular of -ole- stems. Among the various uses of the nominative, we should mention its absolute uses (the so-called nōminātīvus pendēns), frequently attested since early times, cf. Plaut. Poen. 659: tu, si te di amant, agere tuam rem occasiost (‘you, if the Gods are in your favour, this is the right time to conclude the matter’), Calp. Pis. 27: hi contemnentes eum, assurgere ei nemo volui (‘the latter, despising him, no one wanted
to stand up to him’). The Latin accusative case was most suited to generally expressing the goal towards which an action is directed, extent with reference to space and time, and direction of movement. Among the peculiarities of the Latin accusative, we can include here its usage following deverbal nouns in Old Latin, cf. Plaut. Amph. 519: *Quid tibi hanc curatio est rem . . . ?* (‘Why do you concern yourself with this matter . . .?’), Truc. 622-3: *Quid tibi hanc aditio est? / Quid tibi hanc notio est, inquam, amicam meam?* (‘Why do you approach her? I say, what reason do you have to know this friend of mine?’), and the accusative after middle verbs of dressing and undressing (*induē, exū vestem*), cf. Plaut. Men. 512-13: *non ego te indutum foras / exire vidi pallam?* (‘Did I not perhaps see you go outside dressed in a cloak?’).

Examples such as the latter provided the pattern for the so-called (but strictly speaking, incorrectly termed) Greek-style accusative (from the type *nūdus membra* develop such forms as *lacrimīs perfūsa genās*, both found in Virgil), which characterized the classical poetic genres. Nor can we forget traces of a possible ergative use of the accusative in such phrases as *mē pudet*, *mē taedet*. Apart from the ‘subjective’ and ‘objective’ uses of the genitive (whereby a sequence like *Poenōrum bellum* could equally refer, according to context, to either the war waged by the Carthaginians or against the Carthaginians), we shall only mention here the use attested since earliest times of so-called derived adjectives which competed to some extent with the genitive. Such adjectives, inherited from Indo-European and continuing in the Aeolian dialect, in Homeric Greek and in Old Slavic, generally persist in Latin only in those most conservative and archaizing linguistic uses, such as the language of worship or that of the jurists, eventually increasingly equated with oratory and affected styles. Thus, *filius erī* is clearly destined to prevail over *erīlis filius*. Among the typical uses of the dative, which as a rule expresses the interest or involvement in the verbal action, we can mention its frequent use as a so-called ethic dative, especially in the spoken language as evidenced by early plays, e.g. Plaut. Mil. 5: *ego hanc machaeram mihi consolari volo* (‘I wish to console this sword’). A Latin usage inherited from Indo-European is that of the dative used for the complement of the verbal adjective in *-to-*, e.g. Cic. *ad fam. ep. 5, 19, 2: mihi consilium captum iamdīu est* (‘for me the decision was taken long ago’). Finally, the ablative, a syncretistic case having taken over the functions of the original instrumental and locative cases, indicated, strictly speaking, the origin or point of departure of an action. Here, we shall only mention its specific ‘absolute’ use, cf. the Plautine *mē prāsentē, mē vivō*, which soon became set phrases, or classical examples like Caes. b.G. 4, 12, 6: *incitato equo se hostibus intulit* (‘having spurred his horse, he pounced on his enemies’), etc.
Tenses and Moods

As far as the use of tenses and moods of the verb are concerned, unmistakably characteristic of Latin is its tendency to maximize the grammatical category of tense, to the detriment of aspectual distinctions, through the development of a comprehensive system of distinct temporal oppositions. This view is supported by an examination of the immutable system of the *consecutio temporum*, in which the expression of anteriority with reference to the present, past and future plays a central role.

Characteristic of the expressive *Umgangssprache* are the uses of the historic present, the *praesens pro futūrō*, and the imperfect used, not to express relative time, that is, an action contemporaneous with another action, but, rather, with a ‘descriptive’ function foreshadowing its development in Romance as the chief tense of narration. One peculiarity that Latin curiously shares with Hittite is the use of the so-called ‘epistolary past’, of which Cicero, in particular, provides us with a notorious wealth of examples.

Although the subjunctive mood was preferably used in dependent clauses, ultimately leading to its characterization as the specific mood of subordination, many of its uses in simple sentences persisted, where it was most apt to expressing will, likelihood and expectation, as well as wish and contingency. Note that the latter two values were originally expressed by the optative mood which did not survive in Latin, having fused with the subjunctive by a process of syncretism, except for a handful of isolated cases examined above. Of particular interest with regard to the imperative is its use in Old Latin in contexts similar to hypothetical clauses clearly recognizable as such notwithstanding the preservation of a paratactic structure consisting of the simple juxtaposition of two main clauses. In such structures, the imperative does the duties of the subjunctive (in the same way that it may also express will and wish), e.g. Plaut. *Rud.* 386: *verbum etiam adde unum: iam in cerebro colaphos apstrudam tuo* (‘Say another word, and I’ll brain you’), Cic. *Tusc.* 4, 54: *iraecundus non semper iratus est; lacesse, iam videbis furentem* ‘If you provoke him, you’ll see him immediately get angry’, etc.

The nominal character of the infinitive is still apparent in Latin in the numerous cases where it functions as the subject or object of a verb. In addition, the infinitive was found since early times used as an imperative, a usage which has survived (also in prohibitions) in Romance. Since Latin could not make use of the infinitive in the oblique cases (unlike Greek where the article made this usage possible), it had to use the gerund in its place. As for the gerundive, we note that in Old Latin it could also be used with intransitive verbs with a meaning not too removed from that of the future active participle, cf. Plaut. *Epid.* 74: *puppis pereunda est probe* (‘the boat is about to sink’; cf. *perītūra*), and in phrases like *cupidus urbis videndi*, which appear to confirm the original nominal value of the gerundive (the latter example being equivalent to *cupidus urbis visīōnīs*, whereas classical usage would presumably prefer *c. urbis videndae* or *c. urbeīm videndi*). In contrast
to Greek, the absence in Latin of a perfect participle with active meaning (except for deponent participles and a few exceptional forms like cēnātus, pōtus, prānsus, etc., cf. above) led to the use of a wide range of temporal clauses and favoured the extension of the so-called absolute ablative. The supine in -tum/-sum was used to express the aim or purpose of an action, e.g. the Plautine nüpātum dare, nüpātum conlocāre, and the frequent examples with verbs of motion such as ambulātum abīre, accubitum īre, cōmissātum īre, cubitum īre, where, incidentally, the supine found itself in direct competition with the infinitive, e.g. Plaut. Cas. 855–6: eximus ... ludos visere ('we are going out ... to see the games'). In addition, in Old Latin the supine, like the nōmina āctīōnis, may take a direct object, e.g. Plaut. Aul. 247: sī opulentus it petītum pauperioris gratiām ('if a rich man goes to ask the friendship of one poorer than himself'), Caes. b.G. 1, 11, 2: legatos ad Caesarem mittunt auxilium rogatum ('they send ambassadors to Caesar to ask for help'), Liv. 3, 25, 6: venerunt questum iniurias ('they came to complain about the injustices'), etc.

Subordination

Although we cannot possibly discuss here, even briefly, the vast and complex phenomena relating to Latin subordination, we must at least mention the original paratactic structure typical of a number of constructions which continue in Old Latin and colloquial speech, that became fossilized in the hypotactic structures of classical prose. Such was the fate of ut and nē (or ut nōn) used with the subjunctive in various types of complement or adverbial clauses, where, as a rule, the subjunctive is associated with the same values as those it bears in main clauses: rogō ut veniās is readily analysed into ut veniās: rogō 'may you come somehow or other: (this) I ask', whereas timeō nē veniāt presumably means something along the lines of 'I am afraid: may he not come!', while metuō ut redeat originally meant 'I am worried: may he somehow return!', suādeō ut caveās 'I'll give you a piece of advice: may you somehow or other be on your guard!', and so forth. A similar explanation holds also for the uses of sī (which clearly betrays a time-old close relationship with sic < *sei-ce), in that examples like sī faciās hoc, pereās clearly reveal a paratactic structure, which may be expressed as 'Do it like that! You could die!', etc. Occasionally, the simple juxtaposition of two verbal constituents, without an intervening conjunction, unmistakably betrays an original paratactic structure, cf. such examples as hoc volō agās, fec sciam, cave putes, etc. Moreover, a recurrent phenomenon of para-hypotaxis is still observable in the use of the so-called cum inversum 'when suddenly ...'. In many other cases, we can only distinguish between a hypotactic and a paratactic structure by means of sentential intonation (irretrievably lost to us), cf. examples such as nesciō quid agam or the Plautine nesciō quis loquitur (Persa 99). Significantly, it has been noted that Plautine examples like veniāt velīm or sine dem sāvium can be translated both as 'I would like him to come'
or ‘may he come: it would please me’, and ‘let me give you a kiss’ or ‘allow me: I would like to give you a kiss’, respectively. In fact, we could continue extending this line of reasoning to all types of so-called dependent clauses introduced by conjunctions which originally had an adverbial function involving a simple form of clause juxtaposition, and which ultimately came to be fossilized grammatical markers of subordination.

Finally, we shall briefly examine complement clauses. Apart from the privileged status accorded by the literary language to the accusative + infinitive construction, constructions like dicō/sciō quod were presumably in everyday use in the spoken language (nor can we exclude the influence of the corresponding Greek phrase λέγω ὅτι, since the widespread diffusion of diglossia phenomena, if not bilingualism, is attested diagnostically and diatopically in the history and prehistory of Latin). The subliminal reappearance of such structures as in the Plautine example (As. 52–3) scio iam filius quod amet meus / istanc meretricem (‘I know that my son loves that prostitute’), rejected and (un)understandably attacked with tenacity by philologists, is unmistakable in less formal styles (like the Bellum Hispanicum) or those that deliberately imitate the everyday usage of the middle-lower registers of the Umgangssprache (cf. especially Petronius’ Satiricon).

Word Order
Finally, the word order of Old Latin and the classical period is, as a rule, completely free, all combinations being admissible (and widely attested): SOV, SVO, OSV, OVS, VSO, VOS, even if SOV appears to be the preferred order (as a typological classification of ‘standard’ Old and Classical Latin would suggest), in so far as it seems to be the non-marked order, leaving aside stylistic and rhythmical considerations. As for dependency relations, the regressive order (dependant/head), that is the so-called right-headed construction, is the most common, e.g. regis solium, summum iūs, bene agitur, etc. In Late Latin, by contrast, SVO order was gradually established following the ‘analytic’ development of the left-headed construction, both phenomena continuing in Romance.

References
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